COMBINED AQUATICS WORKING GROUP

CAWG 5-WATER TEMPERATURE MONITORING

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This report presents the findings of the temperature studies for the Big Creek Alternative Licensing Process, conducted primarily during 2000 and 2001. Stream temperature and meteorological data were collected by SCE during spring through fall of 2000 as part of SCE's initial information gathering efforts and during spring through fall of 2001 in support of the CAWG 5 Water Temperature Technical Study Plan (SCE 2001a). This study was designed to collect sufficient data to characterize water temperatures in bypass reaches, augmented reaches, and reservoirs. As part of this water temperature monitoring program, sufficient data were collected to allow for the potential calibration and verification of stream and/or reservoir water temperature models, in case temperature modeling is needed to assess Project impacts or to design mitigation measures. These activities represent a portion of the overall study objectives.

Hourly stream temperature and meteorological data, as well as monthly water temperature profiles in lakes and larger powerhouse forebays were collected during the warmer months (May through October), primarily in 2000 and 2001. During the study, water year 2000 was classified as an above normal year in water supply for the San Joaquin River drainage and 2001 was classified as dry. Meteorological conditions for the months studied varied from very warm to cooler than normal. Some of the warmest months in the historical record occurred during this study. The range of conditions that occurred during monitoring, including hot air temperatures and dry year water supply, provide a good basis for understanding the extreme effects of environmental conditions on heating and stream temperatures.

Monthly water temperature profiles were measured in Huntington, Florence and Shaver Lakes, and in Mammoth Pool, Balsam Meadow Forebay, and Big Creek Powerhouse 3 Forebay (Dam 6). Temperature stratification was observed in summer near the dams in Florence, Huntington, and Shaver lakes, as well as in Mammoth Pool Reservoir and Big Creek Powerhouse 3 Forebay. The presence of these conditions resulted in the release of cool water to bypass reaches below these reservoirs and associated powerhouses during the summer. The lakes mix again in the fall.

Water temperatures warmed in streams and Project bypass reaches with distance downstream during the warmer months. During cooler months, water temperatures decreased along streams and bypass reaches. In many of the smaller tributaries, when diversions were "turned out," temperatures were observed to continue to warm in the absence of Project operations. Such warming was often more than 5°F. These results indicate that some portion of warming in study reaches is due to natural warming.

Preliminary temperature evaluation criteria for target species were identified for comparison with observed daily mean and maximum temperatures in Project bypass and augmented reaches.

Observed water temperatures at monitoring stations within bypass reaches were compared to water temperatures at upstream location(s) unaffected by Project operations (or other appropriate reference locations). This was done to determine the number of days that upstream to downstream daily mean and maximum temperature differences were greater than 5°F.

Bypass reaches where upstream to downstream temperature differences were less than 5°F and where daily temperature means and maxima were within the range of preliminary temperature criteria (evaluation criteria) for target aquatic species appeared to be in compliance with basin plan temperature-related criteria adopted for maintenance of beneficial uses. Reaches where upstream to downstream temperature differences were greater than 5°F or where observed daily mean and maximum temperatures were sometimes observed to be outside of the range of temperatures of the preliminary temperature evaluation criteria may, at times not conform with the temperature-related criteria for maintenance of beneficial uses.

Results of the preliminary screening of water temperature increases and comparison of temperatures to preliminary evaluation criteria for target aquatic species in stream bypass reaches are summarized in Tables CAWG 5 ES-1 through ES-14 for periods when Project diversions were in operation. Temperature monitoring locations are listed in the first column. The number of days monitored are listed for each monitoring station. The number of days in which observed daily mean temperatures exceeded preliminary temperature criteria for target aquatic species (i.e., daily mean of 19°C and daily maximum of 24°C for trout), when a diversion was in operation, are presented for each monitoring station.

The remaining columns present the number of days that daily mean or daily maximum temperature differences between upstream reference locations and bypass reach sites were greater than 5°F, when the diversion was in operation. Of those days, the number in which daily temperature means and maxima also were greater than temperature evaluation criteria for target aquatic species are presented as well. The number of days temperatures were outside of the hardhead preference range are presented for sites in the Stevenson Reach of the San Joaquin River, the only study stream reach in which they occur.

For the purposes of this report, bypass reaches where warming does not exceed 5°F and daily mean and maximum temperatures do not exceed preliminary temperature evaluation criteria for target aquatic species, potential Project temperature effects are not considered to need further analysis. For bypass reaches where warming exceeds 5°F or daily mean and/or, maximum temperatures exceed criteria for target aquatic species, additional analyses will evaluate if the cause is Project-related or is sufficient, or practical to be mitigated.

EXECUTIVE SUMMARY TABLES

Table CAWG 5 ES-1. Summary of Mean Temperature Comparisons for the South Fork San Joaquin River[4].

					SFSJR Upstream of Florence Lake Vs.[2]				Boulder Creek Upstream of Florence Lake Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[3]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[3]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SFSJR Upstream of Florence Lake (RM 30.6)	114	76	0	0								
Boulder Creek Upstream of Florence Lake (RM 0.10)	107	146	0	0								
SFSJR Downstream of Florence Lake Dam (RM 27.85)	102	130	0	0	4	7	0	0	0	30	0	0
SFSJR Downstream of Jackass Meadow (RM 26.15)	138	137	0	0	42	4	0	0	34	30	0	0
SFSJR Upstream of Hooper Creek (RM 24.70)	132	137	0	0	30	1	0	0	34	28	0	0
SFSJR Upstream of Crater Creek (RM 23.60)	141	175	0	0	34	25	0	0	45	57	0	0
SFSJR Upstream of Bear Creek (RM 22.35)	106	166	0	0	15	30	0	0	36	76	0	0
SFSJR Upstream of Mono Hot Springs (RM 20.90)	152	122	0	0	27	5	0	0	76	95	0	0
SFSJR Upstream of Camp 62 Creek Confluence (RM 20.20)	152	155	0	2	35	52	0	0	86	143	0	2
SFSJR Upstream of Bolsillo Creek Confluence (RM 19.65)	152	155	0	6	37	56	0	2	88	143	0	6
SFSJR Upstream of Camp 61 Creek Confluence (RM 17.90)	127	148	3	28	41	54	1	9	81	137	3	28
SFSJR Upstream of Mono Creek Confluence (RM 16.65)	127	154	4	30	45	60	2	11	81	142	4	30
SFSJR Upstream of Warm Creek Confluence (RM 15.95)	0	133	0	5	0	35	0	0	0	120	0	5
SFSJR Upstream of Rattlesnake Creek Confluence (RM 14.55)	83	177	0	16	23	62	0	3	60	145	0	16
SFSJR Upstream of Hoffman Creek Confluence (RM 8.55)	85	178	0	9	22	61	0	1	40	145	0	9
SFSJR Upstream of SJR Confluence (RM 0.10) (Length of Bypass Reach)	83	184	6	57	74	76	6	22	44	146	3	57

[1] Florence Lake was diverted for 184 days in 2000 and 2001

[2] SFSJR Upstream of Florence Lake logged fewer days than Boulder Creek and SFSJR Downstream of Florence Lake

[3] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[4] Hardhead not present in this reach.

Table CAWG 5 ES-2. Summary of Maximum Temperature Comparisons for the South Fork San Joaquin River[4].

					SFSJR Upstream of Florence Lake Vs.[2]				Boulder Creek Upstream of Florence Lake Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[3]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[3]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SFSJR Upstream of Florence Lake (RM 30.6)	114	76	0	0								
Boulder Creek Upstream of Florence Lake (RM 0.10)	107	146	0	0								
SFSJR Downstream of Florence Lake Dam (RM 27.85)	102	130	0	0	0	1	0	0	0	19	0	0
SFSJR Downstream of Jackass Meadow (RM 26.15)	138	137	0	0	50	5	0	0	38	28	0	0
SFSJR Upstream of Hooper Creek (RM 24.70)	132	137	0	0	23	7	0	0	20	26	0	0
SFSJR Upstream of Crater Creek (RM 23.60)	141	175	0	0	35	38	0	0	27	73	0	0
SFSJR Upstream of Bear Creek (RM 22.35)	106	166	0	0	15	38	0	0	13	58	0	0
SFSJR Upstream of Mono Hot Springs (RM 20.90)	152	122	0	0	29	5	0	0	18	37	0	0
SFSJR Upstream of Camp 62 Creek Confluence (RM 20.20)	152	155	0	0	40	49	0	0	28	120	0	0
SFSJR Upstream of Bolsillo Creek Confluence (RM 19.65)	152	155	0	0	30	50	0	0	18	119	0	0
SFSJR Upstream of Camp 61 Creek Confluence (RM 17.90)	127	148	0	0	52	66	0	0	36	137	0	0
SFSJR Upstream of Mono Creek Confluence (RM 16.65)	127	154	0	0	82	71	0	0	49	139	0	0
SFSJR Upstream of Warm Creek Confluence (RM 15.95)	0	133	0	0	0	29	0	0	0	93	0	0
SFSJR Upstream of Rattlesnake Creek Confluence (RM 14.55)	83	177	0	0	17	48	0	0	11	108	0	0
SFSJR Upstream of Hoffman Creek Confluence (RM 8.55)	85	178	0	0	9	53	0	0	7	100	0	0
SFSJR Upstream of SJR Confluence (RM 0.10) (Length of Bypass Reach)	83	184	0	0	41	65	0	0	18	145	0	0

[1] Florence Lake was diverted for 184 days in 2000 and 2001.
[2] SFSJR Upstream of Florence Lake logged fewer days than Boulder Creek and SFSJR Downstream of Florence Lake.
[3] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.
[4] Hardhead not present in this reach.

Table CAWG 5 ES-3. Summary of Mean Temperature Comparisons for South Fork San Joaquin River Tributaries[2].

	Days Monitored		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001
Hooper Creek Upstream of Diversion (RM 0.70)	116	137	0	0	**Hooper Creek Upstream of Diversion Vs.**			
Hooper Creek Downstream of Diversion (RM 0.60)	117	137	0	0	0	0	0	0
Hooper Creek Upstream of SFSJR (RM 0.10)	132	137	0	0	0	0	0	0
Crater Creek Diversion (RM 2.80)	141	142	0	0	**Crater Creek Diversion Vs.**			
Crater Creek Diversion Inflow (RM 0.70)	68	49	0	0	5	14	0	0
Crater Creek Upstream of SFSJR (RM 0.10)	141	137	0	0	30	8	0	0
Bear Creek Upstream of Diversion (RM 1.80)	116	108	0	0	**Bear Creek Upstream of Diversion Vs.**			
Bear Creek Downstream of Diversion (RM 1.50)	81	142	0	0	0	0	0	0
Bear Creek Upstream of SFSJR (RM 0.05)	147	166	0	0	2	5	0	0
Camp 62 Creek Diversion (RM 1.40)	147	146	0	0	**Camp 62 Creek Diversion Vs.**			
Camp 62 Upstream of SFSJR (RM 0.05)	152	155	0	0	0	54	0	0
Chinquapin Creek Diversion (RM 0.90)	152	146	0	0	**Chinquapin Creek Diversion Vs.**			
Camp 62 Upstream of SFSJR (RM 0.05)	152	155	0	0	0	27	0	0
Bolsillo Creek Diversion (RM 1.55)	152	146	0	0	**Bolsillo Creek Diversion Vs.**			
Bolsillo Creek Upstream of SFSJR (RM 0.05)	152	155	0	0	0	0	0	0
Mono Creek Upstream of Diversion (RM 6.30)	147	122	0	0	**Mono Creek Upstream of Diversion Vs.**			
Mono Creek Downstream of Diversion (RM 5.75)	147	105	0	0	0	0	0	0
Mono Creek Upstream of SFSJR (RM 0.05)	127	154	0	0	60	71	0	0

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

CAWG 5 ES-4. Summary of Maximum Temperature Comparisons for South Fork San Joaquin River Tributaries[2].

	Days Monitored		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001
Hooper Creek Upstream of Diversion (RM 0.70)	116	137	0	0	**Hooper Creek Upstream of Diversion Vs.**			
Hooper Creek Downstream of Diversion (RM 0.60)	117	137	0	0	0	0	0	0
Hooper Creek Upstream of SFSJR (RM 0.10)	132	137	0	0	0	0	0	0
Crater Creek Diversion (RM 2.80)	141	142	0	0	**Crater Creek Diversion Vs.**			
Crater Creek Diversion Inflow (RM 0.70)	68	49	0	0	26	20	0	0
Crater Creek Upstream of SFSJR (RM 0.10)	141	137	0	0	34	16	0	0
Bear Creek Upstream of Diversion (RM 1.80)	116	108	0	0	**Bear Creek Upstream of Diversion Vs.**			
Bear Creek Downstream of Diversion (RM 1.50)	81	142	0	0	0	0	0	0
Bear Creek Upstream of SFSJR (RM 0.05)	147	166	0	0	0	5	0	0
Camp 62 Creek Diversion (RM 1.40)	147	146	0	0	**Camp 62 Creek Diversion Vs.**			
Camp 62 Upstream of SFSJR (RM 0.05)	152	155	0	0	0	54	0	0
Chinquapin Creek Diversion (RM 0.90)	152	146	0	0	**Chinquapin Creek Diversion Vs.**			
Camp 62 Upstream of SFSJR (RM 0.05)	152	155	0	0	0	27	0	0
Bolsillo Creek Diversion (RM 1.55)	152	146	0	0	**Bolsillo Creek Diversion Vs.**			
Bolsillo Creek Upstream of SFSJR (RM 0.05)	152	155	0	0	0	0	0	0
Mono Creek Upstream of Diversion (RM 6.30)	147	122	0	0	**Mono Creek Upstream of Diversion Vs.**			
Mono Creek Downstream of Diversion (RM 5.75)	147	105	0	0	0	0	0	0
Mono Creek Upstream of SFSJR (RM 0.05)	127	154	0	0	67	56	0	0

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

Table CAWG 5 ES-5. Summary of Mean Temperature Comparisons for the San Joaquin River.

					SJR Upstream of SFSJR						SFJSR Upstream of SJR				SJR Upstream of Mammoth Pool			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SJR Upstream of SFSJR (RM 38.50)	83	184	0	12														
SFJSR Upstream of SJR (RM 0.10)	83	184	6	57														
SJR Upstream of Mammoth Pool (RM 35.50)	46	133	0	32	0	0	0	0			0	0	0	0				
SJR Downstream Mammoth Pool Dam (RM 25.55)	138	145	14	33	60	51	8	23							37	34	0	19
SJR Upstream Rock Creek (RM 22.60)	122	135	27	59	61	47	6	20							33	21	0	11
SJR Upstream Ross Creek (RM 18.75)	120	184	61	99	78	100	25	51							28	34	2	31
SJR Upstream Mammoth Pool Powerhouse (RM 18.30)	67	184	15	94	43	90	8	42							22	33	0	29
SJR Dowstream Dam 6 (RM 17.00)	0	184	0	0	0	28	0	0	0	8								
SJR Upstream Stevenson Creek (RM 15.50)	117	184	9	92	43	101	4	47	19	13								
SJR Downstream Powerhouse 3 (RM 11.20)	130	163	0	1	39	17	0	0	6	1								

[1] Dam 6 and Mammoth Pool Dam diverted water from the San Joaquin River for 184 days during the sampling period in 2000 and 200

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead tolerance range as defined in the methodology, days outside of preference range were at cooler temperatures

Table CAWG 5 ES-5. Summary of Mean Temperature Comparisons for the San Joaquin River (cont).

			SJR Upstream of Mammoth Pool Powerhouse						Big Creek Upstream of Powerhouse 8							
	Days Monitored[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Was outside Hardhead Preference Range[3]	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SJR Upstream of SFSJR (RM 38.50)	83	184														
SFJSR Upstream of SJR (RM 0.10)	83	184														
SJR Upstream of Mammoth Pool (RM 35.50)	46	133														
SJR Downstream Mammoth Pool Dam (RM 25.55)	138	145														
SJR Upstream Rock Creek (RM 22.60)	122	135														
SJR Upstream Ross Creek (RM 18.75)	120	184														
SJR Upstream Mammoth Pool Powerhouse (RM 18.30)	67	184														
SJR Dowstream Dam 6 (RM 17.00)	0	184	0	0	0	0	0	0	0	20	0	0	0	3	0	109
SJR Upstream Stevenson Creek (RM 15.50)	117	184	0	0	0	0	0	0	3	1	2	0	0	1	33	38
SJR Downstream Powerhouse 3 (RM 11.20)	130	163	1	6	0	0	0	0	0	0	0	0	0	0	51	109

[1] Dam 6 and Mammoth Pool Dam diverted water from the San Joaquin River for 184 days during the sampling period in 2000 and 200

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead tolerance range as defined in the methodology, days outside of preference range were at cooler temperatures

Table CAWG 5 ES-6. Summary of Maximum Temperature Comparisons for the San Joaquin River.

			SJR Upstream of SFSJR						SFJSR Upstream of SJR				SJR Upstream of Mammoth Pool			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SJR Upstream of SFSJR (RM 38.50)	83	184	0	0														
SFJSR Upstream of SJR (RM 0.10)	83	184	0	0														
SJR Upstream of Mammoth Pool (RM 35.50)	46	133	0	0	0	0	0	0			0	0	0	0				
SJR Downstream Mammoth Pool Dam (RM 25.55)	138	145	0	0	56	50	0	0							39	30	0	0
SJR Upstream Rock Creek (RM 22.60)	122	135	0	0	50	29	0	0							29	22	0	0
SJR Upstream Ross Creek (RM 18.75)	120	184	4	8	82	167	0	8							41	86	0	8
SJR Upstream Mammoth Pool Powerhouse (RM 18.30)	67	184	2	3	57	157	0	3							38	76	0	3
SJR Dowstream Dam 6 (RM 17.00)	0	184	0	0	0	24	0	0	0	5								
SJR Upstream Stevenson Creek (RM 15.50)	117	184	0	3	53	144	0	3	15	10								
SJR Downstream Powerhouse 3 (RM 11.20)	130	163	0	0	40	16	0	0	6	1								

[1] Dam 6 and Mammoth Pool Dam diverted water from the San Joaquin River for 184 days during the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead tolerance range as defined in the methodology, days outside of preference range were at cooler temperatures.

Table CAWG 5 ES-6. Summary of Maximum Temperature Comparisons for the San Joaquin River (cont).

			SJR Upstream of Mammoth Pool Powerhouse						Big Creek Upstream of Powerhouse 8							
	Days Monitored[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Was outside Hardhead Preference Range[3]	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SJR Upstream of SFSJR (RM 38.50)	83	184														
SFJSR Upstream of SJR (RM 0.10)	83	184														
SJR Upstream of Mammoth Pool (RM 35.50)	46	133														
SJR Downstream Mammoth Pool Dam (RM 25.55)	138	145														
SJR Upstream Rock Creek (RM 22.60)	122	135														
SJR Upstream Ross Creek (RM 18.75)	120	184														
SJR Upstream Mammoth Pool Powerhouse (RM 18.30)	67	184														
SJR Dowstream Dam 6 (RM 17.00)	0	184	0	0	0	0	0	0	0	0	0	0	0	0	0	93
SJR Upstream Stevenson Creek (RM 15.50)	117	184	0	0	0	0	0	0	3	1	0	0	0	0	20	33
SJR Downstream Powerhouse 3 (RM 11.20)	130	163	0	1	0	0	0	0	0	12	0	0	0	0	50	97

[1] Dam 6 and Mammoth Pool Dam diverted water from the San Joaquin River for 184 days during the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead tolerance range as defined in the methodology, days outside of preference range were at cooler temperatures.

Table CAWG 5 ES-7. Summary of Mean Temperature Comparisons for San Joaquin River Tributaries[2].

	Days Monitored		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001
Rock Creek at Diversion (RM 0.40)	138	140	6	16	**Rock Creek at Diversion Vs.**			
Rock Creek Upstream of SFSJR (RM 0.10)	138	144	19	72	0	17	0	16
Ross Creek at Diversion (RM 0.85)	82	85	38	35	**Ross Creek at Diversion Vs.**			
Ross Creek Upstream of SFSJR (RM 0.05)	37	78	0	59	0	47	0	30

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

Table CAWG 5 ES-8. Summary of Maximum Temperature Comparisons for San Joaquin River Tributaries[2].

	Days Monitored		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001
Rock Creek at Diversion (RM 0.40)	138	140	0	0	**Rock Creek at Diversion Vs.**			
Rock Creek Upstream of SFSJR (RM 0.10)	138	144	0	0	1	13	0	0
Ross Creek at Diversion (RM 0.85)	82	85	15	18	**Ross Creek at Diversion Vs.**			
Ross Creek Upstream of SFSJR (RM 0.05)	37	78	0	60	0	62	0	49

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

Table CAWG 5 ES-9. Summary of Mean Temperature Comparisons for Big Creek[3].

					Big Creek Upstream of Huntington Lake Vs.				Rancheria Creek Vs.				Potter Creek Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Big Creek Upstream of Huntington Lake (RM 13.40)	108	177	0	9												
Rancheria Creek (RM 2.20)	128	177	0	0												
Potter Creek (RM ~0.10)	116	177	0	0												
Coon Creek (RM 0.75)	134	159	0	0												
Line Creek (RM ~0.80)	69	149	0	0												
Home Camp Creek (RM 1.35)	142	149	0	0												
Big Creek Downstream of Huntington Lake (RM 9.90)	147	149	0	0	37	32	0	0	66	48	0	0	64	39	0	0
Big Creek Canyon (RM 7.65)	133	149	0	0	3	7	0	0	54	52	0	0	18	2	0	0
Big Creek Upstream of Powerhouse 1 (RM 6.40)	154	183	0	0	1	21	0	0	54	75	0	0	37	9	0	0
Pitman Creek Upstream of Big Creek (RM 0.10)	121	184	0	0												
Big Creek Downstream of Dam 4 (RM 5.90)	133	183	0	0	24	66	0	0	78	162	0	0	81	162	0	0
Big Creek Upstream of Balsam Creek (RM 5.00)	129	183	0	62	22	117	0	24	79	165	0	62	71	165	0	62
Big Creek Upstream of Powerhouse 2 (RM 2.10)	154	184	2	17	31	88	0	3	114	170	2	17	108	172	1	17
Big Creek Downstream of Dam 5 (RM 1.65)	121	184	0	0	37	55	0	0	75	75	0	0	76	53	0	0
Big Creek Upstream of Powerhouse 8 (RM 0.10)	94	184	7	41	31	112	4	10	91	177	7	41	81	177	7	41

[1] Dam1, Dam 4, and Dam 5 diverted water from Big Creek for 184 days during the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead not present in these reaches

Table CAWG 5 ES-9. Summary of Mean Temperature Comparisons for Big Creek[3] (cont).

	Days Monitored[1]		Coon Creek Vs.				Line Creek Vs.				Home Camp Creek Vs.				Pitman Creek Upstream of Big Creek Vs.			
			No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Big Creek Upstream of Huntington Lake (RM 13.40)	108	177																
Rancheria Creek (RM 2.20)	128	177																
Potter Creek (RM ~0.10)	116	177																
Coon Creek (RM 0.75)	134	159																
Line Creek (RM ~0.80)	69	149																
Home Camp Creek (RM 1.35)	142	149																
Big Creek Downstream of Huntington Lake (RM 9.90)	147	149	68	55	0	0	1	39	0	0	59	39	0	0				
Big Creek Canyon (RM 7.65)	133	149	62	63	0	0	0	10	0	0	32	32	0	0				
Big Creek Upstream of Powerhouse 1 (RM 6.40)	154	183	63	74	0	0	15	8	0	0	31	10	0	0				
Pitman Creek Upstream of Big Creek (RM 0.10)	121	184																
Big Creek Downstream of Dam 4 (RM 5.90)	133	183	79	144	0	0	3	135	0	0	65	133	0	0	41	60	0	0
Big Creek Upstream of Balsam Creek (RM 5.00)	129	183	74	147	0	62	30	137	0	62	65	137	0	62	37	168	0	62
Big Creek Upstream of Powerhouse 2 (RM 2.10)	154	184	114	152	2	17	50	143	2	17	115	142	2	17	65	123	0	12
Big Creek Downstream of Dam 5 (RM 1.65)	121	184	77	65	0	0	0	39	0	0	62	39	0	0				
Big Creek Upstream of Powerhouse 8 (RM 0.10)	94	184	91	159	7	41	51	149	7	41	89	149	7	41				

[1] Dam1, Dam 4, and Dam 5 diverted water from Big Creek for 184 days during the sampling period in 2000 and 2001
[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes
[3] Hardhead not present in these reaches

Table CAWG 5 ES-10. Summary of Maximum Temperature Comparisons for Big Creek[3].

					Big Creek Upstream of Huntington Lake Vs.				Rancheria Creek Vs.				Potter Creek Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Big Creek Upstream of Huntington Lake (RM 13.40)	108	177	0	60												
Rancheria Creek (RM 2.20)	128	177	0	0												
Potter Creek (RM ~0.10)	116	177	0	0												
Coon Creek (RM 0.75)	134	159	0	0												
Line Creek (RM ~0.80)	69	149	0	0												
Home Camp Creek (RM 1.35)	142	149	0	0												
Big Creek Downstream of Huntington Lake (RM 9.90)	147	149	0	0	17	22	0	0	54	33	0	0	36	13	0	0
Big Creek Canyon (RM 7.65)	133	149	0	0	1	0	0	0	36	7	0	0	2	0	0	0
Big Creek Upstream of Powerhouse 1 (RM 6.40)	154	183	0	0	1	20	0	0	42	24	0	0	4	4	0	0
Pitman Creek Upstream of Big Creek (RM 0.10)	121	184	0	0												
Big Creek Downstream of Dam 4 (RM 5.90)	133	183	0	0	7	64	0	0	64	157	0	0	31	90	0	0
Big Creek Upstream of Balsam Creek (RM 5.00)	129	183	0	2	2	72	0	0	78	165	0	2	55	134	0	2
Big Creek Upstream of Powerhouse 2 (RM 2.10)	154	184	0	0	2	72	0	0	114	167	0	0	92	119	0	0
Big Creek Downstream of Dam 5 (RM 1.65)	121	184	0	0	19	44	0	0	59	47	0	0	48	31	0	0
Big Creek Upstream of Powerhouse 8 (RM 0.10)	94	184	0	0	10	91	0	0	91	177	0	0	79	177	0	0

[1] Dam1, Dam 4, and Dam 5 diverted water from Big Creek for 184 da s durin the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[3] Hardhead not present in these reaches

Table CAWG 5 ES-10. Summary of Maximum Temperature Comparisons for Big Creek[3] (cont).

			Coon Creek Vs.				Line Creek Vs.				Home Camp Creek Vs.				Pitman Creek Upstream of Big Creek Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Big Creek Upstream of Huntington Lake (RM 13.40)	108	177																
Rancheria Creek (RM 2.20)	128	177																
Potter Creek (RM ~0.10)	116	177																
Coon Creek (RM 0.75)	134	159																
Line Creek (RM ~0.80)	69	149																
Home Camp Creek (RM 1.35)	142	149																
Big Creek Downstream of Huntington Lake (RM 9.90)	147	149	60	51	0	0	0	27	0	0	46	34	0	0				
Big Creek Canyon (RM 7.65)	133	149	57	63	0	0	0	0	0	0	16	10	0	0				
Big Creek Upstream of Powerhouse 1 (RM 6.40)	154	183	59	79	0	0	2	1	0	0	19	9	0	0				
Pitman Creek Upstream of Big Creek (RM 0.10)	121	184																
Big Creek Downstream of Dam 4 (RM 5.90)	133	183	70	130	0	0	0	55	0	0	53	63	0	0	41	60	0	0
Big Creek Upstream of Balsam Creek (RM 5.00)	129	183	75	146	0	2	18	137	0	2	57	137	0	2	37	168	0	2
Big Creek Upstream of Powerhouse 2 (RM 2.10)	154	184	112	147	0	0	42	119	0	0	102	136	0	0	65	123	0	0
Big Creek Downstream of Dam 5 (RM 1.65)	121	184	68	65	0	0	0	34	0	0	55	36	0	0				
Big Creek Upstream of Powerhouse 8 (RM 0.10)	94	184	91	159	0	0	50	149	0	0	82	149	0	0				

[1] Dam1, Dam 4, and Dam 5 diverted water from Big Creek for 184 days during the sampling period in 2000 and 2001
[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.
[3] Hardhead not present in these reaches

Table CAWG 5 ES-11. Summary of Mean Temperature Comparisons for Big Creek Tributaries[2].

	Days Monitored			No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation			No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]			No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		
	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
Pitman Creek Diversion (RM 1.60)	139	161		0	0		**Pitman Creek Diversion Vs.**					
Pitman Upstream of Big Creek (RM 0.10)	121	184		0	0		0	8		0	0	
Balsam Creek Diversion (RM 0.75)	127	183	158	0	0	0	**Balsam Creek Diversion Vs.**					
Balsam Creek Upstream of Big Creek (RM 0.05)	154	183	158	0	0	0	0	0	0	0	0	0
Ely Creek Diversion (RM 1.00)	154	97		0	0		**Ely Creek Diversion Vs.**					
Ely Creek Upstream of Big Creek (RM 0.50)	121	170		0	0		0	0		0	0	

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.
[2] Hardhead not present in these streams.

Table CAWG 5 ES-12. Summary of Maximum Temperature Comparisons for Big Creek Tributaries[2].

	Days Monitored			No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation			No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]			No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		
	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
Pitman Creek Diversion (RM 1.60)	139	161		0	0		**Pitman Creek Diversion Vs.**					
Pitman Upstream of Big Creek (RM 0.10)	121	184		0	0		0	6		0	0	
Balsam Creek Diversion (RM 0.75)	127	183	158	0	0	0	**Balsam Creek Diversion Vs.**					
Balsam Creek Upstream of Big Creek (RM 0.05)	154	183	158	0	0	0	0	0	59	0	0	0
Ely Creek Diversion (RM 1.00)	154	97		0	0		**Ely Creek Diversion Vs.**					
Ely Creek Upstream of Big Creek (RM 0.50)	121	170		0	0		0	0		0	0	

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

Table CAWG 5 ES-13. Summary of Mean Temperature Comparisons for North Fork Stevenson and Stevenson Creeks[3].

					North Fork Stevenson Creek Downstream of Tunnel 7 Outlet (augmented reach) Vs.				North Fork Stevenson Creek Upstream of Shaver Lake Vs.				Stevenson Creek Upstream of Shaver Lake Vs.			
	Days Monitored		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F[1]		No. of Days Temperature Exceeded Daily Average of 19°C When warming was at least 5°F[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
North Fork Stevenson Creek Downstream of Tunnel 7 Outlet (RM 3.50)	147	150	0	0												
North Fork Stevenson Creek Upstream of Shaver Lake (RM 1.10)	147	179	0	0	42	59	0	0								
Stevenson Creek Upstream of Shaver Lake (RM 8.35)	128	123	0	0												
Stevenson Creek Downstream of Shaver Lake (RM 4.25)	148	179	0	0					18	21	0	0	43	44	0	0
Stevenson Creek at Railroad Grade (RM 2.40)	120	183	0	0					0	15	0	0	36	47	0	0
Stevenson Creek Upstream of SJR (RM 0.30)	130	184	3	6					1	34	1	5	68	115	3	0

[1] North Fork Stevenson Creek is augmented by releases from Tunnel 7.

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[3] Hardhead not present in these reaches.

Table CAWG 5 ES-14. Summary of Maximum Temperature Comparisons for North Fork Stevenson and Stevenson Creeks[3].

					North Fork Stevenson Creek Downstream of Tunnel 7 Outlet (augmented reach) Vs.				North Fork Stevenson Creek Upstream of Shaver Lake Vs.				Stevenson Creek Upstream of Shaver Lake Vs.			
	Days Monitored		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F[1]		No. of Days Temperature Exceeded Daily Average of 19°C When warming was at least 5°F[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
North Fork Stevenson Creek Downstream of Tunnel 7 Outlet (RM 3.50)	147	150	0	0												
North Fork Stevenson Creek Upstream of Shaver Lake (RM 1.10)	147	179	0	0	85	114	0	0								
Stevenson Creek Upstream of Shaver Lake (RM 8.35)	128	123	0	0												
Stevenson Creek Downstream of Shaver Lake (RM 4.25)	148	179	0	0					16	14	0	0	33	32	0	0
Stevenson Creek at Railroad Grade (RM 2.40)	120	183	0	0					0	3	0	0	32	31	0	0
Stevenson Creek Upstream of SJR (RM 0.30)	130	184	0	0					0	25	0	0	58	104	0	0

[1] North Fork Stevenson Creek is augmented by releases from Tunnel 7.

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[3] Hardhead not present in these reaches.

1.0 INTRODUCTION

1.1 INTRODUCTION

The general objectives identified in the CAWG 5 Water Temperature Study Plan (SCE 2001a) include:

1. Evaluate water temperature during the warmer months.
2. Characterize water temperatures along bypass reaches for aquatic organisms.
3. Characterize the ability of the Project to affect water temperatures in bypass reaches and reaches downstream of Project reservoirs.
4. Characterize water temperatures in Project reservoirs.
5. Characterize reservoir thermal structure spring through fall.
6. Characterize reservoir volumes of cold and warm water.
7. Characterize and describe the location(s) of water temperature transition zones within project affected stream reaches.

2.0 STUDY IMPLEMENTATION

2.1 STUDY ELEMENT STATUS

Study elements and their status are identified below by element.

Study Element	Status	Outstanding Study Elements
1. Evaluate existing data to determine areas where water temperatures appear to exceed those needed to protect the beneficial uses designated in the Central Valley RWQCB Basin Plan. Consider water year type and meteorological conditions.	Data collection completed Data screening against Basin Plan temperature criteria for aquatic life and warming in bypass reaches.	In conjunction with study elements 4 and 8, a finalized list of reaches that do not appear to meet beneficial use criteria was prepared in consultation with the CAWG. In evaluating the final list, consideration was given to water year type and meteorological conditions that occurred during data collection.
2. Record water temperature upstream, within, and downstream of Project-related structures that could adversely impact temperature (see Project Nexus), including bypassed reaches. Augment these data with meteorologic measurements, hydrologic data, stream topography and geometry, and vegetative shading.	Complete.	For bypass reaches that are to be evaluated by modeling, some supplementary data on stream structure or shading were collected.

Study Element	Status	Outstanding Study Elements
3. Determine thermal structure of reservoirs, and factors that affect the thermal structure during May through October.	Complete.	None.
4. Review scientific literature to determine the suitability of water temperatures for target biological resources.	Preliminary temperature criteria identification complete.	The review of scientific literature for additional information to determine the suitability of water temperatures for target biological resources for use in final evaluations and in conjunction with modeling results will be prepared and presented to the CAWG during 2004.
5. Determine the temperature suitability of Project bypass reaches for appropriate target biological resources.	Preliminary screening complete.	A finalized determination of the temperature suitability of Project bypass reaches for appropriate target biological resources based on the criteria identified in Element 4 will be prepared for study streams identified by the CAWG as part of impact analysis.
6. Collect sufficient data to evaluate the potential for using stored water in reservoirs to modify water temperatures downstream in various water year types.	Data collection is complete.	Availability of cool water volume was calculated, as needed for evaluation of Element 7.
7. Collect sufficient data to evaluate the effect of alternative flow releases and reservoir release temperatures to modify water temperatures in bypass reaches.	Temperature and meteorological data collection complete.	Complete.

Study Element	Status	Outstanding Study Elements
8. Identify areas of non-compliance with Central Valley RWQCB Basin Plan objectives and determine if the impact is Project-related. Conduct a reasonably controllable factor assessment. If the impact is Project related (project nexus exists), conduct additional study and analysis to determine timing and magnitude of non-compliance, as well as potential mitigation measures.	Complete.	In conjunction with Study Elements 4, and 10 through 12 (if modeling is needed), the identification of study streams potentially not in compliance with Central Valley RWQCB Basin Plan objectives related to temperature will be carried out. Where CAWG determines that the potential non-compliance appears to be Project-related, it may be necessary to employ analytical techniques such as modeling to determine if the impact is Project-related (project nexus exists). This may involve determining if observed warming or temperatures in excess of those needed to meet Basin Plan objectives are due to natural warming or Project-related. The CAWG may determine that additional study and analysis is necessary to determine timing and magnitude of potential non-compliance, as well as potential mitigation measures. This would include conducting a reasonably controllable factor assessment.
9. Review existing stream temperature model applications prepared for use in the Big Creek system for applicability and potential use. Determine accuracy and range of conditions represented.	Complete.	This was carried out in 2003.

Study Element	Status	Outstanding Study Elements
10. Review stream and reservoir temperature analytical models for assessing in the analysis of factors affecting water temperatures, the effects of different water year types, and different meteorological conditions than observed, as well as evaluation of potential PM&E measures.	Complete.	None.
11. The results of water temperature monitoring will be reported to the CAWG along with the identification of reaches and/or reservoirs that are candidates for modeling. Recommendations for the use of stream and reservoir temperature models will be made. Alternative models will be identified. The capabilities, appropriateness, prior applications, and other relevant information regarding alternative models will be presented to the CAWG. This will include recommendations regarding the water year and meteorological year conditions to be modeled.	Complete.	The CAWG has determined the reaches that are candidates for modeling. Modeling took place during 2004 and will be reported in a separate modeling report.

Study Element	Status	Outstanding Study Elements
12. Modeling of appropriate reaches and reservoirs will take place with the concurrence of the CAWG for agreed upon conditions.	Part of temperature modeling report.	The CAWG has determine the reaches to be modeled.

3.0 METHODS

3.1 GENERAL APPROACH

The implementation of this phase of the CAWG 5 Water Temperature Study focused on the collection of sufficient data to evaluate conditions in study streams and reservoirs (Map CAWG 5-1). The major elements of this data collection effort include monitoring of the following:

1. Stream temperatures,
2. Reservoir temperatures, and
3. Meteorological data

These data are needed to evaluate conditions for aquatic life in Project waters, to compare to the temperature-related criteria related to Beneficial Uses within the Basin Plan (RWQCB 1998), and to allow more detailed analysis or modeling, if needed.

A major objective of the study plan was to determine whether water temperatures in study streams provide adequate conditions for aquatic biota and meet the Regional Water Quality Control Board's (RWQCB) Basin Plan Water Quality Objectives. To accomplish this, stream temperatures in bypass reaches were monitored during the warmest period of the year.

Another major objective of the study plan was to characterize the thermal behavior of Project reservoirs. Water temperatures were monitored near Project intakes in reservoirs and in powerhouse tailraces. Water temperature profiles were measured in the larger reservoirs to characterize thermal structure and for later use with elevation capacity curves to assess volumes of stored water and their temperatures.

Concurrent meteorological data were collected at eleven locations within the Big Creek area. These data were correlated to air temperature records collected at existing stations with a long period of historical record. Comparisons of monthly air temperatures with the historical record can indicate the percent exceedance of the air temperatures and consequently how warm each month of monitoring is in historical context. These comparisons provide a context for the interpretation of water temperatures observed and allow us to understand whether they resulted from cold, normal, or hot weather conditions.

The Big Creek ALP study area was examined in terms of major stream basins including tributaries. The upper-most drainage is the South Fork San Joaquin River and its tributaries. Downstream, the South Fork San Joaquin joins the next drainage, the San Joaquin River and its tributaries. The Big Creek drainage and the Stevenson Creek drainage are major tributaries to the San Joaquin River watershed.

Data collection for use in characterizing water temperatures in Project reservoirs and streams was carried out in two phases. During 2000, a preliminary data collection was carried out by SCE under the Initial Information Gathering (IIG). This effort was carried out to make sure that adequate data could be collected over a period to time that would provide insight into temperature conditions and monitoring issues, as well as to provide a basis for understanding year-to-year variability related to water year type and weather (heating) conditions that vary. A more extensive effort took place later under the CAWG 5 study plan (SCE 2001a).

Locations of temperature monitoring sites used in both 2000 and 2001 are presented in Maps CAWG 5-2 through 5-9. CAWG 5 Methods are summarized in this section. Additional descriptions of methods are provided in Appendix F.

3.2 STREAM TEMPERATURE MONITORING

3.2.1 METHODS

The principal task of the temperature monitoring study was to characterize water temperatures in Project bypass reaches and reservoirs. Stream temperatures were monitored during 2000 and 2001 utilizing two primary sources of data: 1) water temperature recorders, and 2) meteorological data.

Water temperature recorders were deployed in stream reaches (Table CAWG 5-1), major inflow points to Project reservoirs (Table CAWG 5-1), Project reservoirs and impoundments (Table CAWG 5-2) and near Project intakes (Table CAWG 5-3) within reservoirs (Maps CAWG 5-2 through 5-9). Each recorder was checked for proper functioning within seven days of being placed in operation or upon resetting. A calibration hack (check) was made upon resetting. Recorders were programmed to record hourly temperature data. Water temperature loggers and meteorology stations were checked on an approximately monthly basis to reduce data losses from equipment malfunction and tampering. The data were downloaded onto a laptop computer.

3.3 RESERVOIR PROFILES

3.3.1 OBJECTIVES

This study component had three main objectives: 1) characterize water temperatures and temperature stratification in Project reservoirs; 2) characterize heating and heat content of Project reservoirs; and 3) collect additional data (dissolved oxygen [DO] and specific conductance profiles) to describe thermal stratification in Project reservoirs.

3.3.2 METHODS

Temperature, dissolved oxygen, and specific conductance data were collected from three or more pre-selected sites at each reservoir or lake in the Project area (Maps CAWG 5-2 through 5-9). One profile was taken near the dam and the downstream end of each reservoir, usually the deepest area of the reservoir, another was taken near mid-reservoir, and one was taken at the upstream end. Where a reservoir has more

than one major "arm", a profile was generally taken within each arm. Locations of reservoir profiles are listed in Table CAWG 5-2. Reservoirs were monitored over several years to characterize the effects of different water year-types and heating conditions. Profiles were measured monthly from late spring through fall to determine if thermal stratification occurred in the impoundment and, if so, to describe the stratification. Generally, DO and specific conductance were profiled concurrently with temperature.

Water temperatures at major inflows and outflows (intakes) at reservoirs and lakes were recorded hourly with electronic water temperature recorders. Profile data were taken from a small boat. Dissolved oxygen levels and temperatures were measured with a Hydrolab Quanta or YSI DO meter or equivalent. Specific conductance values were measured with a YSI conductivity meter or equivalent.

3.4 METEOROLOGICAL MONITORING

3.4.1 OBJECTIVES

Meteorological data were collected to characterize the response of impoundment and stream temperatures to changes in meteorological conditions. This study component had four major objectives: 1) collect meteorological data to characterize heating and mixing conditions; 2) collect data to characterize differences in heating with elevation and location; 3) collect data over more than one year to characterize the temperature responses of study streams and reservoirs to a variety of meteorological conditions; and 4) provide enough data to analyze potential Project effects on water temperatures and to calibrate and verify water temperature models.

3.4.2 METHODS

Meteorological stations were established at five principal locations to measure air temperature, relative humidity, wind speed, wind direction, and solar radiation (Table CAWG 5-4 and Maps CAWG 5-2 through 5-9). Air temperature and relative humidity stations were operated at additional locations to assist with calibration of water temperature models, if needed (Table CAWG 5-4). Meteorological data were collected from locations at or near bodies of water within the Project Area from the late spring through fall of 2000 and 2001. All meteorological data were recorded hourly at each station.

3.5 APPROACH TO ANALYSIS

3.5.1 HISTORICAL METEOROLOGICAL CONTEXT

Historical meteorological data were used to establish a context for assessing the meteorological conditions affecting water temperatures during this study. A local meteorological station located at North Fork, operated by the US Forest Service (National Weather Service 2002) was used as the basis for determining historical temperature exceedance values. Information on classification of water years also is presented (i.e., wet, normal, dry), as the amount of water available can have a

substantial effect on water temperature. Water-year classifications for the San Joaquin River Basin were used as prepared by the California Department of Water Resources (DWR 2002).

3.5.2 Summarization of Water Temperature Data

Daily mean, minimum, and maximum stream temperature values were calculated from data collected at each water temperature monitoring location. These data were tabulated and appended to this report. Monthly mean, maximum (warmest hourly temperature measured during a month), and minimum (coolest hourly temperature measured during a month) temperatures were calculated for each recording station to summarize information. Data gaps that occurred are identified in Appendix G.

3.5.3 Water Temperature Trends and Transition Zones

Longitudinal plots of water temperatures were prepared for bypass reaches containing more than one pair of recorders per reach. These plots show daily mean temperatures at mid-month for each of the stations included. Lines were drawn connecting stations to indicate possible trends. Where appropriate, the mainstem of a drainage is presented including forebays (e.g., Big Creek).

Figures were prepared of daily mean temperatures by year for related water temperature stations. These present daily water temperatures with local air temperatures to indicate seasonal trends and the effect of air temperatures on water temperatures. Sites were grouped to indicate trends on a localized basis.

3.5.4 Preliminary Evaluation of Temperatures with Water Quality Objectives and Beneficial Uses

An analysis was used to evaluate which bypass reaches may have warming conditions or temperatures that potentially affect habitat suitability for aquatic species and thereby could affect meeting Water Quality Objectives or maintenance of Beneficial Uses. A screening approach using preliminary temperature evaluation criteria was used to identify at each stream location, for each day of monitoring, whether temperature conditions may have been measured that could be of potential concern. The purpose of this evaluation was to identify stream reaches, conditions and Project-operations that may need to be analyzed further in determining whether there are potential impacts from Project operations, and if so, how these may be practically addressed, if mitigation is needed.

There are two components that were used for this analysis. These were used to evaluate potential concerns with water temperatures in study streams. The first involves warming within bypass reaches. Water temperatures within bypass reaches are evaluated for potential compliance with the CVRWQCB Basin Plan (CVRWQCB 1998) objectives for warming, which states: “At no time or place shall the temperature of COLD or WARM intrastate waters be increased more than 5°F above natural receiving water temperature.” Therefore, if measured temperatures did not result in a

temperature difference greater than 5ºF (2.78ºC) above natural warming along a bypass reach, we can conclude that the objective for warming is probably being met. Observed daily mean and maximum water temperatures in bypass reaches were compared to water temperatures upstream of the bypass reach to determine the number of days that warming exceeded 5°F. Since warming of streams is a natural phenomenon during warm periods of the year, it is not always clear how much of observed warming may be due to natural sources and how much due to Project operations. Comparison of recorded stream temperatures with this criterion may produce one of several potential outcomes.

1. For bypass reaches that do not warm in excess of 5ºF when compared with upstream monitoring stations, such reaches are clearly in compliance with this criterion.

2. For reaches where warming is over 5ºF, but only when the Project is not in operation, such as late summer in small streams that are only diverted during runoff, the warming is not due to Project diversion of flow and is in compliance with this criterion. The observed temperature change is merely the "natural warming" referred to in the criteria.

3. Reaches where warming exceeds 5ºF when the Project is in operation should be further analyzed to determine if it is of biological importance (see below), and if it is, whether it is due to Project operations or natural warming. This may entail more detailed analyses or modeling.

The second component of this analysis was to compare recorded temperatures to temperature evaluation criteria for target aquatic species. To perform that analysis, preliminary temperature evaluation criteria were identified for screening purposes and recorded temperatures were compared to them for each day of monitoring. The number of days in which temperatures exceeded the preliminary criteria of a daily mean of 19° or a daily maximum of 24°C was identified and reported in comparison to the number of days monitored by site, year, and month. This was done for all study streams or stream segments. Tables provided in Appendix H report the number of days during which daily mean water temperatures exceeded each of a range of temperatures from 15°C to 20°C, and the number of days daily maximum water temperatures exceeded each of a range of temperatures from 20°C to 26°C. These were provided to enable the CAWG to examine the outcome of alternative temperature criteria. The comparison with stream segments unaffected by Project operations was made to provide an indication whether natural warming also resulted in temperatures that did not meet the criteria.

The CAWG will determine which study stream reaches will need to be analyzed in subsequent phases of this study, as outlined in the CAWG 5 study plan and identified as study elements in Section 2 of this report (SCE 2001a).

3.5.5 PRELIMINARY TEMPERATURE CRITERIA

Temperatures recorded in the bypass reaches and other locations were compared to screening temperature evaluation criteria to make a preliminary determination whether temperatures at a location were likely to be suitable for aquatic life.

Preliminary temperature evaluation criteria were needed to perform the initial screening of water temperatures recorded during this study to assist in identifying streams that may need further analysis. Additional criteria may be developed from the scientific literature and presented to the CAWG for approval for use in follow-up analyses and to evaluate potential modeling results.

Preliminary criteria were identified for coldwater fish and for hardhead (*Mylopharodon conocephalus*), a member of the native transition zone fish community that occurs in the lower portion of the Project area (Stevenson Reach of the San Joaquin River and downstream). The coldwater fish criteria would be evaluated at all locations and the hardhead criteria in those locations in which they are known to occur (based on the results of available information and CAWG 7 studies).

3.5.5.1 Coldwater Fish Temperature Criteria

Potential temperature evaluation criteria for coldwater fish were determined during the development of the CAWG study plans (See Appendix J). Stakeholder Management Objectives in the CAWG 5 study plan (SCE 2001a) include:

3. Maintain or enhance water temperatures for trout. A specific suggested objective is to maintain a mean daily average water temperature at or below 19°C in the Project bypass reaches managed for trout.

This temperature was identified as being considered by the California Department of Fish and Game (CDFG) as a statewide criterion for trout. USEPA (1976) identified 19°C as the maximum weekly temperature for growth for rainbow trout (*Oncorhynchus mykiss*) and brook trout (*Salvelinus fontinalis*). Eaton et al. (1995) citing others, identified 18.1°C as the calculated maximum growth temperature (CMGT) for rainbow trout, 18°C for brown trout (*Salmo trutta*) and 14.4°C for brook trout. A temperature of 19°C was used as the temperature evaluation criterion for preliminary screening of daily mean temperatures at all locations. For each site, a count was made and presented for those days in which the daily mean temperature exceeded 19°C.

For the purposes of this analysis, a daily maximum temperature of 24°C was selected for presentation to the CAWG as a temperature evaluation criterion for short-term high temperature exposure. The number of days in which the daily maximum temperature exceeded 24°C was presented for each temperature recorder site. The use of 24°C for short-term exposure may be considered conservative (overly protective) based on available information. Based on available literature drawn largely from laboratory studies (Cherry et al. 1977, Raleigh et al. 1984, Currie et al. 1998, Coutant 1977) the upper incipient lethal temperature for rainbow trout is within the range 25-30°C, brown trout have been characterized as being tolerant of temperatures of up to 27°C. USEPA

(1976) identified maximum weekly temperatures for survival for rainbow and brook trout as 24°C. Eaton et al. (1995) identified upper temperature criteria for rainbow and brown trout as 24.0 and 24.1°C, respectively.

The duration of exposure considered in this preliminary criterion for daily maximum temperature is generally one hour or less. USEPA (2001) states the National Academy of Sciences (NAS) (1972) recommendations to specify maximum acceptable temperatures for prolonged exposures (greater than one week), winter maximum temperatures, short-term exposure to extreme temperature, and suitable reproduction and development temperatures. Lethal effects are thermal effects that cause direct mortality within an exposure period of less than one week. Survival rates based on amount of time exposed and temperature of exposure are extremely well described in the scientific literature. The upper incipient lethal temperature (UILT) is an exposure temperature, given a previous acclimation to a constant acclimation temperature, that fifty percent of the fish can tolerate for seven days (Elliott 1981). Alternatively, UILT at a particular acclimation temperature has been determined as an exposure temperature producing 50 percent survival within 1,000 minutes (16.7 hours) (Brett 1952, Elliott 1981) or 24 hours (Wedemeyer and McLeay 1981, Armour 1990). For salmonids, a survey of the literature indicates that acclimation temperatures above approximately 20°C (68°F) produce similar UILT values, although very small increases in UILT can occur at up to a 24°C (75.2°F) acclimation temperature. Consequently, it can be assumed that any UILT study in which acclimation temperature was 20°C (68°F) will produce a UILT nearly identical to the UUILT (ultimate UILT). UILTs reported by USEPA (2001) for rainbow trout range from 24° to 26.9°C. These data are generally based on laboratory studies, many of which utilized trout from more northerly, and presumably less temperature tolerant strains than those found in California. Since the temperatures cited represent 24-hour to seven day exposures, 24°C, the lowest UILT identified, when used in comparison to an exposure of one hour or less, is very conservative.

In addition to the comparisons with preliminary temperature criteria presented in the body of this report, tables of days with mean or maximum temperatures exceeding a specific temperature with a range presented are provided in Appendix H.

3.5.5.2 Hardhead

Temperature evaluation criteria were presented to the CAWG for the hardhead, a member of the native transition zone fish community. The hardhead is a species of concern to many stakeholders in the Big Creek ALP and is addressed by a stakeholder objective from the CAWG 5 study plan:

5. Maintain favorable water temperatures and water quality for the native transition zone community.

The hardhead is a US Forest Service Region 5 sensitive species (USFS 1998) and a CDFG species of special concern (Moyle et al. 1995). It is a member of a group of native fish species that can coexist within the same waters as trout, but have warmer

temperature preferences and tolerances and different life histories than coldwater fish, such as trout.

Temperature preferences among fish depend upon a variety of factors including fish size, acclimation history, food availability, predators, disturbance, water velocities and cover availability. Moyle (2002) states that, regarding hardhead temperature use, "Most streams in which they occur have summer temperatures in excess of 20°C, and optimal temperatures for hardhead (as determined by laboratory choice experiments) appear to be 24 to 28°C (15). In a natural thermal plume in the Pit River, hardhead generally selected temperatures of 17 to 21°C, which were the warmest available (16)." Based on this information, a temperature evaluation criteria range of 15.3°C to 28.4°C was selected. This represented the envelope of preferred temperatures for this species. This range was compared to daily mean temperatures in the Stevenson Reach of the San Joaquin River and downstream, where hardhead were found. For each site in the Stevenson Reach of the San Joaquin River and downstream, a count was made and presented for those days in which the daily mean temperature fell outside the range of 15.3 to 28.4°C[1].

[1] It should be noted that early in the monitoring periods, temperatures were frequently lower than the preferred range.

4.0 METEOROLOGY AND FLOW CONDITIONS

4.1 FLOW AND RESERVOIR ELEVATIONS

Meteorological data are presented in this section to examine meteorological factors that affect stream and reservoir water temperatures. Part of the approach is to use an analysis of historic data to place conditions, observed during this survey, which affect stream and reservoir temperatures in perspective. Flow conditions for the San Joaquin River tributaries are characterized by the DWR and results are available for a long historic record.

Flow data and reservoir elevations were collected from numerous locations throughout the Project Area by SCE. These data will be reported under the results of the CAWG 6 Hydrology Study.

DWR classifies water years (October 1 to September 30) into five classes: wet, above normal, below normal, dry, and critical. During the three years in which monitoring took place, 2000, 2001, and 2002, DWR (2002) classified the water supply for these years as shown in Table CAWG 5-5. These classifications generally describe the availability of flow from tributaries, accretion, local run-off, and minimum release flows from Project facilities.

4.2 RESULTS OF METEOROLOGICAL MONITORING

Meteorological data were collected at eleven representative locations in the Big Creek area (Table CAWG 5-4) to characterize conditions and provide information for potential water temperature modeling. Data were collected at five sites with four channel meteorological (met) stations. Four-channel met stations collect data on air temperature, relative humidity, wind speed, and solar radiation. Data were collected at six additional sites with two-channel met stations. Two-channel met stations collect data on air temperature and relative humidity.

Time-series plots of mean daily air temperature data are presented for the South Fork San Joaquin River, San Joaquin River, Big Creek, and Stevenson Creek drainages in Figures CAWG 5-1 through 5-4. In general, day-to-day air temperature fluctuations are similar among the data recorder sites. Air temperatures at the higher elevation sites were generally at least 10°C less than at the lower elevation sites near Big Creek Powerhouse No. 3. These observed trends followed the typical air temperature lapse rate of approximately 2°C cooling for every 1000-ft elevation increase.

Appendix A presents tabulated daily meteorological information.

4.2.1 LOCAL METEOROLOGICAL CONDITIONS

4.2.1.1 South Fork San Joaquin River Drainage

Meteorological data were collected at three sites in the South Fork San Joaquin River Basin in 2000 and 2001 (near Florence Lake Dam, at Lake Edison near the Vermilion Valley Resort, and at the South Fork San Joaquin River/Rattlesnake Creek confluence). Limited data were available from the Lake Edison site in 2000, due to equipment malfunction. Table CAWG 5-6 presents the monthly mean air temperatures for all three sites. The air temperatures followed similar trends. During 2000, the air temperatures at the Florence Lake and Rattlesnake Creek sites were warmest from June through August and cooled in September. Similarly, in 2001 the temperatures at all sites warmed during July through August and cooled in September. Additionally, August and September 2001 were warmer than in 2000.

4.2.1.2 San Joaquin River Drainage

Meteorological data were collected at four sites in the San Joaquin River drainage during 2000 and 2001, which included the San Joaquin River immediately upstream of the Mammoth Pool Reservoir high water mark, near the Mammoth Pool Reservoir dam, at the Mammoth Pool Powerhouse tailrace, and near the Big Creek Powerhouse No. 3 tailrace. In 2002, the met station near Big Creek Powerhouse No. 3 was operated to evaluate conditions that may affect temperatures recorded in Balsam Creek. Tables CAWG 5-7 and 5-8 show the monthly mean air temperatures for all four sites. The air temperatures recorded at all four of the meteorological stations followed similar trends. The warmest days occurred during July and August, while temperatures became cooler in September, and even cooler in October.

4.2.1.3 Big Creek Drainage

Meteorological data were collected at two sites in the Huntington Lake-Big Creek drainage during 2000 and 2001 (Huntington Lake near Dam No. 2 and along Big Creek immediately upstream of Big Creek Powerhouse Nos. 2/2A). The monthly mean air temperatures for both sites are presented in Table CAWG 5-9. The air temperatures recorded at the Huntington Lake-Big Creek drainage meteorological stations followed similar trends in both 2000 and 2001. In both 2000 and 2001, the air temperatures at Huntington Lake were more than 5^{o}C cooler than at Big Creek Powerhouse No. 2. The air temperatures at both sites, generally, increased from May to August, and decreased from September to October.

4.2.1.4 Stevenson Creek Drainage

Meteorological data were collected at two sites in the Shaver Lake area in 2000 and 2001 (Eastwood Powerhouse Tailrace at Shaver Lake and at the intersection of Stevenson Creek with Railroad Grade Road). Table CAWG 5-10 presents the monthly mean air temperatures for both sites. The air temperatures recorded at the two Shaver Lake-Stevenson drainage met stations followed similar trends. The temperatures at the

two sites generally increased and decreased in unison, with the air temperatures recorded at the Eastwood Tailrace site (the higher altitude site) generally being lower.

4.2.2 HISTORICAL CONTEXT OF METEOROLOGICAL CONDITIONS

Understanding the historical context of air temperatures is important in evaluating water temperatures, because air temperature is one of the most important factors influencing the temperature of surface waters. Webb, Clack and Walling (2003) evaluated five years of hourly data, and found that overall, the influence of river flow was modest, water-air temperature relationships were stronger and more sensitive at lower discharges, and that flow had greater effect with decreasing time interval and increasing catchment size. Crisp and Howson (1982) found that a linear regression of mean air temperature with mean stream temperature accounted for 87 to 95 percent of the variance in water temperatures. Regression equations that included rainfall and discharge made only small improvements, ranging from five to 13 percent. Additionally, air temperatures from distant stations did not significantly reduce the accuracy of water-temperature models (Crisp and Howson 1982, Mohseni et al 1998, Mohseni and Stefan 1999, Mohseni et al 1999).

Air temperatures at the US Forest Service North Fork Ranger Station, provided the long-term (1948 to 2002) record used for comparison. Air temperatures for 2000 and 2001, and May to October of 2002 at this station were compared to those for the 51-year period of record for the months of May through September. Table CAWG 5-11 presents the average monthly temperatures for the 2000 to 2002 monitoring period at North Fork Ranger Station and the percentage exceedance of that month within the historical record.

An exceedance value of 50 percent is the median value, half the air temperatures having been higher and half lower. An exceedance value above 50 percent indicates a cooler than average air temperature (since more than half of historical monthly average values were warmer); an 80 percent exceedance temperature would be exceeded by 80 percent of all historical monthly average temperatures and is therefore representative of cooler conditions.

For 2000, warmer than average conditions occurred in half of the summer months monitored, based on exceedance analysis. June 2000 was one of the warmest Junes in the period of record. July was cooler than average, August was very warm, and September was close to the median. The summer 2001 monitoring period represented a warmer than average period. May 2001 was the warmest May (two percent exceedance) during the historical record measured at the North Fork Ranger Station. June, August and September were warmer than average and July was about average. In 2002, May and August were cooler than average and June and July were warmer.

5.0 STREAM TEMPERATURE RESULTS

5.1 INTRODUCTION

A stepwise analysis was used to determine which study reaches (bypass reaches and flow enhanced reaches) have altered water temperatures that likely affect habitat suitability for aquatic species.

Daily mean, minimum, and maximum stream temperature values were calculated from hourly (or shorter period) data collected at each water temperature monitoring location. These data were tabulated (see Appendix B through Appendix E) and plotted to display the results of temperature monitoring. The number of days in which daily mean and maximum temperature exceed each of a range of temperatures are presented in Appendix H. The number of days temperature differences were greater than 5°F (2.78°C) between monitoring stations in bypass reaches and unaffected reaches upstream were identified and tabulated. This information includes the number of those days that daily mean water temperatures at the downstream site exceeded 19°C and maximum daily water temperatures exceeded 24°.

Water temperature results are presented by major sub-basins or “drainages” within the Basin. The most upstream segment is the South Fork San Joaquin River (SFSJR) and its tributaries. Downstream, the South Fork San Joaquin joins the next segment, the San Joaquin River and its tributaries. The Big Creek basin and the Stevenson Creek basin are part of the San Joaquin River watershed, but are discussed individually.

Water from the upper South Fork San Joaquin River drainage is stored in Florence Lake and Lake Thomas A. Edison. Water from these two lakes and various other medium and small diversions flows into Huntington Lake via the Ward Tunnel and the Mono-Bear Siphon. This diverted water first passes through Portal Powerhouse or a Howell-Bunger valve at the exit of the Ward Tunnel prior to entering Huntington Lake. The Big Creek Hydroelectric System operates as three interlinked water chains (Figure CAWG 5-5) including:

1. Huntington Water Chain: This chain consists of Portal Powerhouse, Big Creek Powerhouse 1, Big Creek Powerhouse 2, Big Creek Powerhouse 8, Big Creek Powerhouse 3, and Big Creek Powerhouse 4.

2. Shaver Water Chain: This chain consists of Portal Powerhouse, Eastwood Powerhouse, Big Creek Powerhouse 2A, Big Creek Powerhouse 8, Big Creek Powerhouse 3, and Big Creek Powerhouse 4.

3. Mammoth Water Chain: This chain consists of Mammoth Pool Powerhouse, Big Creek Powerhouse 3, and Big Creek Powerhouse 4.

Water passing through Ward Tunnel becomes part of the upper portion of either the Huntington Chain or the Shaver Chain. Flows from the South Fork San Joaquin River and its tributaries, including spills from Florence Lake, Lake Thomas A. Edison, and Bear Creek Forebay enter the San Joaquin River downstream of the confluence of the Middle Fork and North Fork San Joaquin River drainages. These flows are collected in Mammoth Pool Reservoir and become part of the upper portion of the Mammoth Chain.

5.2 SOUTH FORK SAN JOAQUIN RIVER DRAINAGE

Study results are presented for Florence Lake and its tributaries, the bypass reach of the South Fork San Joaquin River downstream of Florence Lake Dam (SFSJR River Mile [RM] 28) to the San Joaquin River confluence, and tributaries to the South Fork San Joaquin River including diverted and undiverted tributaries. The reservoirs that discharge water into this reach include Florence Lake and Vermilion Valley Reservoir (Lake Thomas A. Edison). The Florence Lake, Lake Thomas A. Edison, Confluence Station, and Rattlesnake Creek met stations were used to characterize local meteorological conditions near stream reaches in the South Fork San Joaquin River drainage.

5.2.1 FLORENCE LAKE

Florence Lake captures the inflow of the upstream reaches of the SFSJR and tributaries (including Boulder Creek). Diversions from Crater, Tombstone, North Slide, South Slide, and Hooper creeks also may flow to Florence Lake. Discharge from the reservoir is normally controlled to supply water to the South Fork San Joaquin River and via Ward Tunnel, to Huntington Lake.

5.2.1.1 Florence Lake Temperature Profiles

Water temperature profiles were taken monthly in two locations identified as the *Inflow End* and *Dam* locations during the summer and early fall of 2000 and 2001 (Figures CAWG 5-6 and 5-7). Water temperature warming trends were similar between the shallow *Inflow End* and the shallower waters (epilimnion) at the second location near Florence Lake Dam. Temperature stratification occurred in the summer months, then surface waters began to cool in September and thermal layers in the lake began to mix.

Releases from Florence Lake to the South Fork San Joaquin River are made from an outlet located deep within Florence Lake near the upstream end of the dam. Water temperatures in the bottom layers of the reservoir were generally much cooler than mean water temperatures of the inflow from the upper SFSJR during the summer, since they represent water stored earlier during runoff that was insulated from warming by the epilimnion. (The epilimnion is the upper layer of a stratified lake that is usually warmer and consequently less dense so that it floats over denser, cooler water beneath). Therefore, releases below the dam were cooler as well. By September of 2001, the lake was drawn down, the water column began to mix and water temperatures of the inflow from the upper river and near the bottom at the dam were more similar. Diversions to Ward Tunnel occur at a higher elevation, tend to divert warmer waters

nearer to the surface and are less likely to deplete stored cool, hypolimnetic (pertaining to the deeper, usually colder layer of a stratified lake) water.

5.2.1.2 Upstream of Florence Lake

The SFSJR upstream of Florence Lake contributes the majority of the input flow to the lake. Boulder Creek flows to the SFSJR upstream of the lake. Diversions from Crater, Tombstone, North Slide, South Slide, and Hooper creeks also flow to Florence Lake, when diversions are operating (Tombstone, North Slide, and South Slide diversions were not operated during this study). Diverted tributaries are discussed with other tributaries to the SFSJR.

Water temperature data for Boulder Creek (SFSJR RM 30.3) and the SFSJR upstream of Florence Lake (SFSJR RM 30.6) are summarized in Table CAWG 5-12 and Figure CAWG 5-8. At the monitoring station in the SFSJR upstream of Florence Lake, repeated incidents of vandalism resulted in missing data during August and September. However, for the period of record, the available temperatures corresponded closely with those recorded in Boulder Creek upstream of Florence Lake, which provides a useful supplement to the missing data for the SFSJR. Water temperatures at both sites were cold. In Boulder Creek, observed water temperatures did not exceed a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-13, also see Appendix H Tables H-A1 and H-B1 for other specific temperature ranges). In the SFSJR upstream of Florence Lake, observed water temperatures did not exceed a daily average of 17°C or a daily maximum of 20°C (also see Appendix Tables H-A2 and H-B2).

5.2.2 Mainstem of the South Fork San Joaquin River

Daily mean water temperatures for mid-month for 2000 and 2001 were plotted with distance downstream for the South Fork San Joaquin River (Figures CAWG 5-9 and 5-10). These figures are shown to illustrate trends in longitudinal temperatures along the mainstem for a typical day during each month of monitoring. Since daily temperatures vary during each month, additional figures present daily temperatures at each location for each day of monitoring by reach with nearby air temperatures. Water temperatures recorded at multiple locations in the bypass reach of the SFSJR between Florence Lake Dam to upstream of the confluence with the San Joaquin River (SFSJR RM 27.85 to RM 0.1) are summarized in Table CAWG 5-14 and Figures CAWG 5-11 through 5-13.

The monitoring station directly downstream of Florence Lake (RM 27.85), represents release water temperatures as flows first enter the river. Water is released from near the bottom of the lake, which means that the coolest water is released during the times when the lake is thermally stratified (most of the summer). However, by late August or mid-September, water temperatures in the South Fork San Joaquin River downstream of Florence Lake equaled or exceeded temperatures upstream of the lake due to the release of mixed lake water containing the heat stored in the lake's epilimnion. There were a few days in September when mean daily water temperatures downstream of Florence Dam were more than 5°F greater than upstream of Florence Lake, but on

those days mean daily water temperatures did not exceed the 19°C criterion (Table CAWG 5-15). Temperature differences between Boulder Creek upstream of Florence Lake and the SFSJR downstream of Florence Lake Dam exceeded 5°F for many days in September and October of 2001 due to release of mixed lake water containing stored heat from the epilimnion, but not in the summer months of 2000 or 2001 when cool water from the hypolimnion of the stratified lake was released below the dam (Table CAWG 5-16). The number of days increases in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-17 and 5-18.

During the summer months, water temperatures increased fairly rapidly in the first 12 miles downstream of Florence Lake, then stabilized or decreased slightly between Warm and Hoffman creeks. A less dramatic trend of temperature increase was apparent downstream of Hoffman Creek to the San Joaquin River confluence station (Figures CAWG 5-9 and 5-10).

Water temperatures occasionally exceeded 19ºC in the river, particularly in July and August of 2001, for a few days at the stations near Camp 62, Bolsillo, Warm and Hoffman creeks, and for a greater number of days upstream of Camp 61, upstream of Mono Creek, upstream of Rattlesnake Creek, and upstream of the San Joaquin River Confluence (Table CAWG 5-19, also see Appendix H Tables H-A2 to H-A16). However, a daily maximum of 24ºC was not exceeded (Table CAWG 5-19 and Appendix H Tables H-B2 to H-B16; Figures CAWG 5-12 and 5-13). Water temperatures decreased substantially in September and October in all reaches.

Water temperature data at temperature monitoring stations in the river downstream of Florence Lake Dam were compared to data from stations upstream of Florence Lake to determine if the water warmed more than 5ºF (2.78ºC) in the overall reach from Florence Lake to the confluence with the San Joaquin River. Comparisons of daily mean and daily maximum temperatures between unaffected stations above Florence Lake and stations in the bypass reach of the SFSJR below the dam are presented in Tables CAWG 5-20 through 5-71. Although there were days that water temperature increases exceeded 5°F at all stations, water temperatures did not exceed 19°C on those days at stations upstream of Bolsillo Creek.

Water temperatures were relatively stable or decreased slightly between Warm and Hoffman creeks. The cooling trend in this segment of the SFSJR may be due, in part, to the constriction of the river through a very deep, narrow canyon, where it is less subject to warming from solar radiation and summer air temperatures. Cold water inflow from tributaries to this reach also may contribute to cool water temperatures in this reach of the river. Upstream of the San Joaquin River confluence, water temperatures warmed, and mean temperatures were greater than 19ºC for most days in July and August of 2001 (Appendix H Table H-A16 presents the number of days that each of a range of daily mean water temperatures was exceeded). This is a reach characterized by many pools.

Water temperature differences between upstream of Florence Lake and the confluence with the San Joaquin River exceeded 5°F for almost all days monitored in 2000 and

2001, including September and October (Tables CAWG 5-44 and 5-45). However, a substantial part of those increases appeared to occur above the Jackass Meadow station. The number of days increases in daily maximum water temperature exceeded 5°F are presented in Table CAWG 5-46.

5.2.3 TRIBUTARIES TO THE SOUTH FORK SAN JOAQUIN RIVER

Tributaries to the bypass reach of SFSJR downstream of Florence Lake, including diverted and undiverted creeks are presented from upstream near Florence Lake downstream to the confluence with the San Joaquin River. Temperature data and preliminary comparisons with evaluation criteria are presented in Tables CAWG 5-72 through 5-111, and in Figures CAWG 5-14 through 5-22. The number of days for which daily temperatures exceeded each of a range of temperatures for tributaries with diversions are presented in Appendix H Tables H-A17 through H-A40 and Tables H-B17 through H-B40.

5.2.3.1 Tributaries to the Upper South Fork San Joaquin River

Diversions on Tombstone, South Slide, and North Slide creeks were not in operation during the monitoring period, so flows within those creeks were not affected by Project operations. A water temperature monitor was deployed in each of these creeks approximately 0.1 mile upstream of the confluence with the river. Water temperatures were cold, and there was no day when observed water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-72; Figure CAWG 5-14). Days exceeding each of a range of daily temperatures are presented in Appendix H Tables H-A17 through H-A19 and Tables H-B17 through H-B19.

Tombstone, South Slide, and North Slide creeks have their confluences with the SFSJR at RM 27.2, 25.8, and 25.8, respectively. The diversions are located, in order, approximately 1.1, 0.33, and 0.24 miles upstream of their confluences with the river. During 2001, Tombstone and South Slide creeks went dry after July 17 and on July 24, respectively. Average monthly water temperatures in Tombstone, South Slide, and North Slide creeks were cold, 11.8ºC or less, 12.4ºC or less, and 11.8ºC or less, respectively. Monthly maximum temperatures did not exceed 19.5ºC, 20.5ºC, and 15.7ºC in Tombstone, South Slide and North Slide creeks, respectively (Table CAWG 5-73).

Hooper Creek has its confluence with the SFSJR at RM 24.6. Hooper Creek Diversion is located approximately 0.73 miles upstream of the confluence with the river. Four water temperature recorders were deployed in Hooper Creek (Map CAWG 5-2). Hooper Creek Diversion was operated during May 29 to September 30 of 2000 and April 26 to July 20 of 2001.

There were no days when observed water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in Hooper Creek in either 2000 or 2001 (Table CAWG 5-74; Figure CAWG 5-15). Days with daily temperatures exceeding each of a range of

temperatures are presented in Appendix H Tables H-A20 through H-A23 and Tables H-B20 through H-B23. There was no day when an observed daily mean or daily maximum water temperature increase exceeded 5ºF (Tables CAWG 5-75 through 5-78). Average monthly water temperatures in Hooper Creek were cold, 11.3ºC or less, and did not differ substantially between the four monitoring stations. Monthly maximum temperatures did not exceed 16.6ºC. Hooper Creek provided cold water input to the SFSJR that was usually several degrees cooler than water temperatures in the river upstream of Hooper Creek, especially in September (Table CAWG 5-79).

Crater Creek has its confluence with the SFSJR at RM 23.5 and the diversion is located approximately 2.9 miles above the confluence. There is no minimum instream flow release requirement below the diversion, but seepage from the diversion provides flow to the creek, when the diversion is in operation. The diversion was operated from April 28 to July 23 of 2000 and from March 12 to July 15 of 2001.

Three water temperature recorders were deployed to represent Crater Creek and its diversion channel (Map CAWG 5-2). The Crater Creek diversion channel consists of a constructed channel and natural drainage that delivers diverted water to Florence Lake. The diversion channel went dry after August 18 in 2000 and July 27 in 2001. There were no days when observed water temperatures exceeded a daily average of 19ºC in either 2000 or 2001 in Crater Creek or the diversion channel, when flow was being diverted. Days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A24 through H-A26. A daily maximum of 24ºC was exceeded only one day in July 2001 in the Crater Diversion Channel near the inflow to Florence Lake (Table CAWG 5-80 and Appendix H Table H-B25). Daily maximum temperatures at the diversion and upstream of the confluence with the SFSJR did not exceed 20°C (Appendix H Tables H-B24 through H-B26).

In the bypass reach of Crater Creek, daily mean and daily maximum water temperatures were often greater than 5ºF warmer upstream of the SFSJR than at the diversion (Tables CAWG 5-81 and 5-82). However, average monthly water temperatures were still cool, at 14.4ºC or less, and monthly maximum temperatures did not exceed 19.2ºC (Table CAWG 5-83; Figure CAWG 5-16). The increase in water temperatures in the bypass reach was greater than 5ºF for almost half the recorded days in June, and almost all days in July through October of 2000. After July 23, 2000, the diversion was turned out and any warming was natural, not related to Project diversion of flow (Table CAWG 5-81). Temperature fluctuations at the Crater Creek Diversion and in Crater Creek upstream of the SFSJR generally correspond to fluctuations in air temperature at Florence Lake (Figure CAWG 5-16). Air temperatures for this period on a monthly basis were hot, cooler than normal, warmer than normal, and near normal, respectively (Table CAWG 5-11). This trend was less pronounced in 2001, when increases in daily mean water temperatures exceeded 5ºF for eight days in June, about one-third of August, and all recorded days in September and October of 2001. The diversion was turned out on July 15, 2001. Subsequently, all remaining days exceeding 5°F were due to natural warming and not to Project diversion of flow. Air temperatures for June through September were warmer than normal, normal, warmer than normal, and warmer than normal, respectively (Table CAWG 5-11).

Average monthly stream temperatures at the Crater Creek Diversion were cold, 10.8ºC or less. Monthly maximum temperatures did not exceed 14.7ºC. When the diversion was operational, the Crater Creek Diversion Channel provided cold water input to Florence Lake with average monthly temperatures from 11.8 to 15.4ºC. Average daily stream temperatures in the Crater Creek Diversion Channel at the inflow to Florence Lake were greater than 5ºF warmer than at the diversion for many days in July and August, but average monthly temperatures were still cool, 15.4ºC or less (Tables CAWG 5-83 through 5-85; Figure CAWG 5-17). The increase in water temperatures between the Crater Creek Diversion and the Diversion Channel inflow to Florence Lake was greater than 5ºF for about half the recorded days in July and all the recorded days in August of 2000, and for almost all of the recorded days in July of 2001. The diversion of water through the Diversion Channel was halted on July 23, 2000 and on July 15, 2001, and the channel went dry in August of 2000 and July of 2001 (Table CAWG 5-84).

5.2.3.2 Tributaries to the Middle and Lower South Fork San Joaquin River

Temperature data and preliminary comparisons with evaluation criteria for tributaries to the Middle and Lower SFJSR are presented in Tables CAWG 5-86 through 5-111 and Figures CAWG 5-18 through 5-22. The numbers of days in which specific temperatures were exceeded are presented in Appendix H Tables H-A27 through H-A40 and Tables H-B27 through H-B40.

The Mono-Bear Siphon (also known as the Mono-Bear Conduit) carries water from the Mono and Bear Diversions to Ward Tunnel. Bear Creek has its confluence with the SFSJR at RM 22.3 and the diversion is located approximately 1.57 miles upstream of the confluence with the river. Bear Creek Diversion was operated throughout the monitoring period.

Four water temperature recorders were deployed in Bear Creek (Maps CAWG 5-2 and 5-3). There was only one day when water temperatures exceeded a daily average of 19ºC, and it occurred in August of 2001 in Bear Creek Diversion impoundment (Table CAWG 5-86). Days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Table H-A30. Daily average water temperatures upstream and downstream of the diversion never exceeded 19°C (Appendix H Tables H-A27 and H-A28) and upstream of the confluence with the SFSJR never exceeded 18°C (Appendix H Table H-A29). Air temperatures were warmer than normal during that month (Table CAWG 5-11). There was no day when an observed water temperature exceeded a daily maximum of 24ºC during either 2000 or 2001 (Table CAWG 5-86, Appendix H Tables H-B27 through H-B30; Figure CAWG 5-18).

Average monthly stream temperatures in Bear Creek were cool, at 18.2ºC or less, and maximum temperatures did not exceed 21.0ºC (Table CAWG 5-87). The warmest water temperatures occurred in the impoundment behind the diversion dam, but releases from the dam were usually cooler. Water released from the diversion (downstream of diversion) was generally only slightly warmer than upstream of the diversion and slightly cooler than upstream of the confluence with the SFSJR. The increase in daily mean water temperature between downstream of the diversion and the

confluence with the river was greater than 5ºF for two days in 2000 and five days in June 2001 (Tables CAWG 5-88 and 5-89). Increases in daily maximum water temperatures exceeded 5°F for five days in 2001 between upstream of the diversion and upstream of the confluence with the SFSJR (Tables CAWG 5-90 and 5-91). Air temperatures in June 2000 and 2001 were hotter than normal (Table CAWG 5-11).

Mono Creek has its confluence with the SFSJR at RM 16.55 and the diversion is located approximately 5.8 miles upstream of the confluence with the river. Mono Creek Diversion was operated during most of the monitoring period.

Four water temperature recorders were deployed in Mono Creek (Map CAWG 5-3). There was no day when a water temperature exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 92, Appendix H Tables H-A36 through H-A39 and Tables H-B36 through H-B39; Figure CAWG 5-19). Stream temperatures in Mono Creek were cool, with average monthly stream temperatures of 16.0ºC or less and monthly maximum temperatures of 18.7ºC or less (Table CAWG 5-93). At the Mono Creek Diversion, there was a rapid and substantial decrease in water temperature in early July, then a steady increase over the summer months. This trend largely reflected the thermal stratification conditions in Lake Thomas A. Edison, the source of the water reaching the diversion (SCE 2001b).

There was a slight warming trend from upstream of the diversion to within the near surface waters of the forebay created by the diversion. Releases from the diversion dam were cooler than the surface waters of the impoundment, and were comparable to temperatures upstream of the diversion. There were generally minimal fluctuations in water temperatures upstream of the diversion and at the diversion, reflecting the source of the water deep within Lake Edison. There was no day during which the increase in daily mean or maximum water temperatures between upstream of the diversion and downstream of the diversion was greater than 5°F (Tables CAWG 5-94 and 5-95).

Average monthly water temperatures were several degrees warmer at the confluence with the river in June through August, but by September or October were cooler. In the bypass reach of Mono Creek, the increase in water temperature was greater than 5ºF for all of the days recorded in June through September of 2000, and for most of June, July and August of 2001 (Table CAWG 5-96). The number of days increases in daily maximum water temperature exceeded 5°F are presented in Table CAWG 5-97. Mono Creek diversion was in operation throughout this period. Fluctuations in water temperatures upstream of the confluence with the river generally corresponded to fluctuations in air temperature. Air temperatures for June through September 2000 were hot, cooler than normal, warmer than normal, and slightly warmer than normal respectively. For June through August 2001, air temperatures were warmer than normal, near normal, and warmer than normal, respectively (Table CAWG 5-11).

Camp 62 Creek has its confluence with the SFSJR at RM 20.2 and the Camp 62 Creek Diversion is located approximately 1.35 miles upstream of the confluence with the river. The newly rebuilt diversion dam/structure diverts stream flow into Ward Tunnel. The

diversion was not in operation in 2000, and was operated during the first half of the summer of 2001, from May 12 to June 29 and July 4 to 18.

Chinquapin Creek, a tributary of Camp 62 Creek, flows into Camp 62 Creek 1.05 miles upstream of the confluence with the SFSJR, about 0.4 miles downstream of the diversion. The Chinquapin Creek Diversion, located approximately 0.9 miles upstream of the confluence with Camp 62 Creek, also diverts stream flows into Ward Tunnel. The diversion was out of service during 2000. The diversion was operated only from May 9 to June 9, June 12 to 14, and July 6 to 10 of 2001 during the monitoring period.

Two water temperature recorders were deployed in Camp 62 Creek (Map CAWG 5-2). The recorder placed in Camp 62 Creek 0.05 miles upstream of the confluence with the SFSJR represents the downstream temperature for the combined waters of Camp 62 and Chinquapin Creeks. One water temperature recorder was deployed in Chinquapin Creek (Map CAWG 5-2).

There was no day when water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 in Camp 62 or Chinquapin Creek (Table CAWG 5-98, Appendix H Tables H-A31 through H-A33 and Tables H-B31 through H-B33; Figure CAWG 5-20). Stream temperatures near the confluence with the river were cool even when the Camp 62 Creek Diversion was in operation, with average monthly stream temperatures of 15.6ºC or less and monthly maximum temperatures of 18.2ºC or less (Table CAWG 5-99).

Water temperatures increased in the bypass reach of Camp 62 Creek. The daily mean increases exceeded 5ºF for over half of July and all of August, September, and October of 2000 (Table CAWG 5-100). This was wholly due to natural warming since the diversion was not in operation. The number of days during which increases in daily maximum water temperature exceeded 5°F are presented in Table CAWG 5-101. Air temperatures during 2000 were hot in July, cooler than normal in August, warmer than normal in September, and near normal in October (Table CAWG 5-11). Water temperature increases exceeded 5ºF for all days recorded in May through October of 2001 (Table CAWG 5-100). Air temperatures for 2001 were hot in May, warmer than normal in June, near normal in July, warmer than normal in August, and warmer than normal in September (Table CAWG 5-11). The diversion was only in operation for May 12 through June 29 and July 4 through 18 during this period. This indicates that natural warming in the absence of flow diversion was sufficient to exceed 5°F during most periods. During July 2001, when the diversion was in operation warming averaged 3.5°C, during the period the diversion was not in operation warming averaged 4.2°C.

Water temperatures also increased in the bypass reach in Chinquapin Creek. This increase was greater than 5ºF for most days monitored in the summer, and even into September and October, both in 2000 and in 2001 (Tables CAWG 5-102 and 5-103). During most of this time, the diversion was not in operation. This suggests that a fair amount of natural warming takes place. It should be noted that May 2001 was the warmest May on record (Table CAWG 5-11).

Camp 62 Creek and Chinquapin Creek diversions provided cold water input to Ward Tunnel with average monthly temperatures from 6.6 to 10.6ºC and 7.1 to 10.6ºC, respectively, in May through July of 2001 (Table CAWG 5-99).

Bolsillo Creek has its confluence with the SFSJR upstream of RM 19.6 and the diversion is located approximately 1.57 miles upstream of the confluence with the river. Water is diverted to the Ward Tunnel. The diversion was operated from April 5 to June 17 and July 5 to 6 of 2001 during the monitoring period.

Two water temperature recorders were deployed in Bolsillo Creek (Map CAWG 5-2). There was no day when water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-104, Appendix H Tables H-A34, H-B34, H-A35 and H-B35; Figure CAWG 5-21). Stream temperatures near the confluence with the river were cold, with average monthly stream temperatures of 14.4ºC or less and monthly maximum temperatures that did not exceed 18.4ºC (Table CAWG 5-105). Daily mean water temperatures increased more than 5ºF in the bypass reach of Bolsillo Creek for many days in October of 2000 and 2001, but not during the times that the diversion was in operation. Daily maximum temperature increases above 5°F also occurred during the time the diversion was not in operation (Tables CAWG 5-106 and 5-107). This suggests natural warming, not related to diversion of flow, was responsible.

Warm Creek is a tributary of the SFSJR with its confluence near RM 15.9 (Map CAWG 5-3). Warm Creek Diversion is located about 4.4 miles upstream of the SFSJR, where flows are seasonally diverted through Boggy Meadow Creek to Lake Thomas A. Edison. Water temperatures in Warm Creek were evaluated as part of the traditional relicensing process for the Vermilion Valley Hydroelectric Project (SCE 2001b, 2001c; see Appendix I).

A temperature recorder was deployed in Warm Creek approximately 0.4 miles upstream of the confluence with the SFSJR (Map CAWG 5-3). Average monthly water temperatures in Warm Creek upstream of the SFSJR ranged from 7.4ºC to 12.8ºC (Table CAWG 5-108). Observed water temperatures did not exceed a daily average of 15ºC, or a daily maximum of 20ºC during 2000 and 2001 (Table CAWG 5-109, Appendix H Tables H-A40 and H-B40).

Rattlesnake, Hoffman, Four Forks, and Rube Creeks are undiverted tributaries of the SFSJR with their confluences with the river at SFSJR RM 14.5, 6.4, 9.9, and 5.0, respectively. Temperature recorders were deployed 0.3 to 1.6 miles upstream of the confluence with the river (Map CAWG 5-4).

There were no days when water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-110; Figure CAWG 5-22). Water temperatures were cold. Average monthly stream temperatures in Rattlesnake, Hoffman, Four, and Rube Creeks were 12.6ºC or less, 13.0ºC or less, 12.1ºC or less, and 13.2ºC or less, respectively. Monthly maximum temperatures did

not exceed 15.3ºC, 14.8ºC, 15.2ºC, and 16.8ºC in Rattlesnake, Hoffman, Four, and Rube Creeks, respectively (Table CAWG 5-111).

5.3 SAN JOAQUIN RIVER DRAINAGE

The San Joaquin River drainage was monitored from upstream of the confluence with the SFSJR (San Joaquin RM 38.5) to Tunnel 4 intake at Dam 7 at the downstream end of Redinger Lake (San Joaquin RM 6.1). Information on the San Joaquin River downstream of Big Creek Powerhouse 3, including Redinger Lake and the Horseshoe Bend also is included in the Exhibit E of the Application for New License for the Big Creek 4 Project (SCE 1997).

5.3.1 MAMMOTH POOL

Mammoth Pool Dam (San Joaquin River RM 26) impounds water in Mammoth Pool Reservoir. Water is diverted from Mammoth Pool through Mammoth Pool Power Tunnel to the Mammoth Pool Powerhouse at RM 18.2. The base of the tunnel at the intake is the bottom of the reservoir.

5.3.1.1 Mammoth Pool Temperature Profiles

Water temperature profiles were taken monthly in three locations identified as the *Inflow End*, *Middle*, and *Dam* locations during July, September, and October of 2000, and from June through October of 2001 (Figures CAWG 5-23 and 5-24). Water temperature trends were similar between all locations when the reservoir was not stratified; and at the shallow *Inflow End*, the epilimnion at the *Middle* station, and the location near the dam when the reservoir was stratified. Temperature stratification occurred during summer months in both 2000 and 2001, but the lake began to mix in August and was well mixed by October.

Instream flow releases from the Mammoth Pool Dam to the San Joaquin River are made from deep in the reservoir. In 2001, bottom water temperatures warmed from June to August, cooled in September, then warmed again, as depth decreased and the reservoir mixed. Diversions to the Mammoth Pool Powerhouse also are made from the deep layers of the lake, which tend to deplete the cold hypolimnion waters, when the lake is stratified.

5.3.1.2 Upstream of Mammoth Pool Reservoir

Water flowing into the upstream end of Mammoth Pool Reservoir is derived from the San Joaquin River and its tributaries. One temperature recorder was deployed within the river upstream of the confluence of the SFSJR with the SJR (San Joaquin RM 38.5). Project operations do not affect the river at this location. Another temperature recorder was deployed upstream of Mammoth Pool Reservoir (San Joaquin RM 34.6) (Table CAWG 5-112; Figure CAWG 5-25). The temperature unit installed in the SFSJR upstream of the confluence was discussed in the section discussing the SFSJR. Preliminary comparisons to evaluation criteria are presented in Table CAWG 5-113. The number of days in which each of a range of temperatures was exceeded at stations

in the San Joaquin River upstream of Mammoth Pool are presented in Appendix H Tables H-A41, H-A42, H-B41 and H-B42.

Upstream of the SFSJR, water temperatures exceeded a daily average of 19ºC, during one day in July and 11 days in August of 2001. Days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Table H-A41. Air temperatures for those months were near normal and warmer than normal, respectively (Table CAWG 5-11). Water year 2001 was considered to be a "dry" year. There was no day when observed water temperatures exceeded a daily maximum of 24ºC (Table CAWG 5-113, Appendix H Table H-B41; Figure CAWG 5-25).

Upstream of Mammoth Pool, there were 32 days (July through September) when observed water temperatures exceeded a daily average of 19ºC in 2001 (the number of days exceeding each of a range of temperatures are presented in Appendix H Table H-A42). Air temperatures were warmer than normal during July, near normal in June, warmer than normal in August, and warmer than normal in September (Table CAWG 5-11). There was no day when observed water temperatures exceeded a daily maximum of 24ºC (Table CAWG 5-113 and Appendix H Table H-B42).

Water temperatures were only slightly warmer in the San Joaquin River upstream of Mammoth Pool Reservoir than the San Joaquin River upstream of the SFSJR confluence. There was no day when an observed daily mean or maximum water temperature increase exceeded 5ºF between these sites (Tables CAWG 5-114 and 5-115). Temperatures averaged 1.5°C and 1.8°C warmer during May and October 2001, respectively. These were the months with the greatest average warming. During much of the summer, water originating from the lower SFSJR was warmer than that originating from the San Joaquin River upstream of the confluence. By September, water temperatures from these sources were similar, or the SFSJR contributed slightly cooler water. There were many days, primarily in August, that water temperatures exceeded a daily average of 19ºC upstream of Mammoth Pool, but no days that exceeded a daily maximum of 24ºC. There was no day when an observed water temperature increase exceeded 5°F between the station in the SFSJR near the confluence with the San Joaquin River and upstream of Mammoth Pool (Tables CAWG 5-116 and 5-117).

The San Joaquin River provided cool to slightly warm water input to the Mammoth Pool Reservoir with average monthly temperatures 19.5ºC or less. Maximum monthly water temperatures did not exceed 21.2ºC (Table CAWG 5-112). At the time when stratification was being established in the reservoir, water temperatures of inflows from the San Joaquin River in 2000 and 2001 were generally similar to those in the hypolimnion at the *Inflow End* of the reservoir. Mean water temperatures from the river were colder than the bottom waters at the *Inflow End* in September and October, when the lake began to mix.

5.3.1.3 Tributaries to Mammoth Pool Reservoir

Undiverted tributaries of the Mammoth Pool Reservoir include Jackass, Mill, Kaiser, Chiquito and Daulton Creeks. Temperature recorders were deployed in these creeks upstream of Mammoth Pool (Map CAWG 5-5). Monitoring results and preliminary comparisons with evaluation criteria are presented in Tables CAWG 5-118 and 5-119 and Figures CAWG 5-25 and 5-26.

There was no day when water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 in Jackass, Mill, and Kaiser Creeks (Table CAWG 5-118; Figure CAWG 5-26). Average daily water temperatures in these creeks were similar to each other and these creeks provided cold water input to Mammoth Pool. Average monthly temperatures in Jackass and Mill creeks were 17.0ºC or less, with maximum temperatures not exceeding 19.7ºC or 21.2ºC, respectively. In Kaiser Creek they were 16.7ºC or less and maximum temperatures did not exceed 20.3ºC (Table CAWG 5-119).

In Chiquito Creek, water temperatures exceeded a daily average of 19ºC for 25 days in July and August 2000, and 66 days during June through September 2001 (Table CAWG 5-118; Figure CAWG 5-26). Air temperatures during July and August 2000 were cooler than normal and warmer than normal, respectively. Air temperatures during 2001 were warmer than normal in June, near normal in July, warmer than normal in August, and warmer than normal in September, respectively (Table CAWG 5-11). There was no day when water temperatures exceeded a daily maximum of 24ºC in either 2000 or 2001. Chiquito Creek provided cooler water input with average monthly temperatures from 11.5ºC to 20.6ºC to Mammoth Pool. Maximum temperatures did not exceed 23.5ºC.

Average daily water temperatures in Daulton Creek were lower than in Chiquito Creek. Water temperatures exceeded a daily average of 19ºC for eight days in 2001, but not in 2000. Water temperatures exceeded a daily maximum of 24ºC for two days in 2001, but not in 2000 (Table CAWG 5-118; Figure CAWG 5-26). Air temperatures during July and August 2001 were near normal and warmer than normal, respectively. Daulton Creek provided cool water input to Mammoth Pool Reservoir with average monthly temperatures from 9.7ºC to 18.1ºC. Maximum temperatures did not exceed 24.5ºC (Table CAWG 5-119).

5.3.2 MAINSTEM OF THE SAN JOAQUIN RIVER

5.3.2.1 Overview

Water temperatures were recorded at multiple locations in the San Joaquin River between the confluence with the South Fork San Joaquin River and Dam 7 at Redinger Lake, from San Joaquin River RM 38.5 to RM 6.1. Mid-month daily mean water temperatures recorded at monitoring stations in the San Joaquin River were graphed by river mile to show the trends in water temperature in a downstream direction (Figures CAWG 5-27 and 5-28). Individual stations were plotted for each day and are discussed

below. Warming occurred within each of the bypass reaches during the summer months.

The Mammoth Reach includes the Project bypass reach between the Mammoth Pool Dam and the Mammoth Pool Powerhouse. The monitoring station directly downstream of Mammoth Pool Dam at San Joaquin RM 25.55 represents release water temperature as it first enters the river. Temperatures directly downstream of Mammoth Pool Dam were similar to or cooler than in the reach of the river upstream of Mammoth Pool Reservoir from June through August, but were warmer as mixed lake water was released in September and October, while the reaches upstream cooled. Between Mammoth Pool Dam (San Joaquin RM 25.55) and upstream of Ross Creek (San Joaquin RM 18.75), average monthly water temperatures increased during the summer months, then decreased in October of 2000 and in September and October of 2001. At the Mammoth Pool Powerhouse tailrace (San Joaquin RM 18.2), the discharge of cold water withdrawn from the hypolimnion of Mammoth Pool Reservoir resulted in cool temperatures at this location from June through August.

The Stevenson Reach of the San Joaquin River includes the bypass reach between Dam 6 and Big Creek Powerhouse 3 at Jose Creek. Cool water releases from Dam 6 at San Joaquin RM 17.0 resulted in cool temperatures in the river directly below the dam in 2001, but water temperatures increased rapidly in the next 1.5 miles to upstream of Stevenson Creek at San Joaquin RM 15.5.

The San Joaquin River at the downstream end of the Stevenson Reach has received input flow from Stevenson Creek and from Big Creek Powerhouse 3 prior to entering Redinger Lake. Big Creek Powerhouse 3 represents much of the inflow to Redinger Lake and decreases water temperatures from those observed in the bypass reach during warmer months. Summer water temperatures in 2001 downstream of Big Creek Powerhouse 3 (RM 11.2) were much lower than upstream of Stevenson Creek (RM 15.5) and were the same as water temperatures downstream of Dam 6 (RM 17.0). Upstream of Stevenson Creek, average monthly water temperatures were cooler in 2000 than in 2001, but downstream of Big Creek Powerhouse 3; there was not a substantial difference between years.

Downstream of Big Creek Powerhouse 3, water is impounded by Dam 7 in Redinger Lake. Water temperatures gradually increased between Big Creek Powerhouse 3 and the Tunnel 4 Intake at Dam 7 at San Joaquin RM 6.1.

5.3.2.2 Mammoth Reach of the San Joaquin River (Mammoth Pool Reservoir to Upstream of Mammoth Pool Powerhouse)

Water temperatures were recorded at multiple locations in the Project bypass reach of the San Joaquin River between Mammoth Pool Dam and Mammoth Pool Powerhouse, from San Joaquin RM 25.55 to 18.2. Water temperatures and comparisons with evaluation criteria for this reach are presented in Tables CAWG 5-120 and 5-121, 5-122 through 5-137, and Figure CAWG 5-29. The number of days during which daily

temperature exceeded each of a range of temperatures are presented in Appendix H Tables H-A43 through H-A46 and Tables H-B43 through H-B46.

Downstream of Mammoth Pool Dam, observed water temperatures exceeded a daily average of 19ºC for 14 days in 2000 and 33 days in 2001, generally in the months of August through October. There was no day when observed water temperatures exceeded a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-121, Appendix H Tables H-A43 and H-B43). Water temperatures downstream of Mammoth Pool Dam are controlled by releases from the dam. In September and October, the lake generally was no longer thermally stratified and mixing lake waters did not cool substantially until October. Average monthly water temperatures ranged from 14.7ºC to 19.8ºC, and maximum temperatures did not exceed 21.0ºC (Table CAWG 5-120; Figure CAWG 5-29).

Differences in mean daily water temperature between upstream of Mammoth Pool (RM 37.26) and downstream of Mammoth Pool Dam exceeded 5°F for many days in September and almost all days monitored in October (Table CAWG 5-122). During these months, thermal layers in the lake were mixed, resulting in the release of water downstream of the dam containing heat stored in the warm epilimnetic waters over the summer. Mean daily water temperature differences between the San Joaquin River upstream of the confluence with the SFSJR and downstream of Mammoth Pool Dam exceeded 5°F for two days in August, 27 days in September, and 31 days in October of 2000. Temperature differences exceeded 5°F for 23 days in September and all of the days monitored in October of 2001 (Table CAWG 5-123). The number of days with differences in daily maximum water temperature that exceeded 5°F are presented in Tables CAWG 5-124 and 5-125.

In the San Joaquin River upstream of Rock Creek, there were 27 days in 2000 and 59 days in 2001, when observed water temperatures exceeded a daily average of 19ºC during the months of June through September. There was no day when observed water temperatures exceeded a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-121; Figure CAWG 5-29). The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A44 and H-B44. Air temperatures during July through September 2000 were cooler than normal, warmer than normal, and near normal, respectively. Air temperatures during June through September 2001 were warmer than normal, near normal, warmer than normal, and warmer than normal, respectively (Table CAWG 5-11). Average monthly water temperatures ranged from 15.0ºC to 19.3ºC (during 2000), and maximum temperatures did not exceed 22.3ºC (Table CAWG 5-120).

Differences in mean daily water temperature between upstream of Mammoth Pool and upstream of Rock Creek exceeded 5°F for most days monitored in September and October of 2000 and June of 2001, but no other months monitored in 2001 (Table CAWG 5-126). As discussed above, this is likely due to releases from the cold water stored in the hypolimnion of Mammoth Pool during the summer months, which results in water temperatures below the dam that are cooler than lake inflows during that period. During the fall, the release of warm epilimnetic water containing stored heat results in

warmer temperatures downstream of the dam. Mean daily water temperature differences between the San Joaquin River upstream of the confluence with the SFSJR and upstream of Rock Creek exceeded 5°F for three days in August, 27 days in September, and 31 days in October of 2000. Mean daily water temperature differences exceeded 5°F for 23 days in June, 15 days in September and nine days in October, but no days in July and August of 2001 (Table CAWG 5-127). The number of days differences in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-128 and 5-129.

In the San Joaquin River upstream of Ross Creek (San Joaquin RM 18.75), there were 61 days in 2000 and 99 days in 2001, when observed water temperatures exceeded a daily average of 19ºC. Observed water temperatures exceeded a daily maximum of 24ºC for four days in 2000 and for eight days in 2001 (Table CAWG 5-121). The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A45 and H-B45. Air temperatures in June through September 2000 were hot, cooler than normal, warmer than normal, and near normal, respectively. Air temperatures in June through September 2001 were warmer than normal, near normal, warmer than normal, and warmer than normal, respectively (Table CAWG 5-11). Average monthly water temperatures ranged from 14.4ºC to 20.8ºC, and maximum temperatures did not exceed 24.8ºC (Table CAWG 5-120).

Mean daily water temperature differences between upstream of Mammoth Pool and upstream of Ross Creek exceeded 5°F for many days monitored in September and October of 2000 and June 2001, and for nine days during July 2001, but no days in August, September or October 2001 (Table CAWG 5-130). Mean daily water temperature differences between the San Joaquin River upstream of the confluence with the SFSJR and upstream of Ross Creek exceeded 5°F for most or all days in August through October of 2000. Temperature differences exceeded 5°F for most days in May through July of 2001, nine days in September, seven days in October, but no days in August of 2001 (Table CAWG 5-131). The number of days differences in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-132 and 5-133.

Upstream of the Mammoth Pool Powerhouse (San Joaquin River RM 18.3), observed water temperatures exceeded a daily average of 19ºC for 15 days in 2000 and 94 days in 2001. Temperatures exceeded a daily maximum of 24ºC for only two days in 2000 and three days in 2001 (Table CAWG 5-121). The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A46 and H-B46. Average monthly water temperatures ranged from 14.5ºC to 20.7ºC, and maximum temperatures were as high as 26.8ºC (Table CAWG 5-120).

Mean daily water temperature differences between the upstream of Mammoth Pool Reservoir and upstream of the Mammoth Pool Powerhouse exceeded 5°F for many days monitored in June and July of 2001 and September and October of 2000, but no other months monitored in 2001 (Table CAWG 5-134). Mean daily water temperature differences between the San Joaquin River upstream of the confluence with the SFSJR and upstream of the Mammoth Pool Powerhouse exceeded 5°F for about half the days

monitored in August and September, and 28 days in October of 2000. Mean daily water temperature differences exceeded 5°F for all days in May and June, 19 days in July, four days in September, and six days in October, but no days in August of 2001 (Table CAWG 5-135). The number of days differences in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-136 and 5-137.

Air temperatures in June through September 2001 were warmer than normal, near normal, warmer than normal, and warmer than normal, respectively (Table CAWG 5-11).

5.3.3 TRIBUTARIES TO THE MAMMOTH REACH OF THE SAN JOAQUIN RIVER

Tributaries of the Mammoth Reach of the San Joaquin River include both undiverted (Shakeflat, Horsethief, and Fish Creeks) and diverted streams (Rock and Ross Creeks).

Water temperature recorders were deployed in Shakeflat, Horsethief, and Fish creeks upstream of the confluence with the River (Map CAWG 5-5). Temperature monitoring results and comparisons with evaluation criteria are presented in Tables CAWG 5-138 through 5-147 and Figures CAWG 5-30 through 5-32. The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A47 through H-A50 and Tables H-B47 through H-B50.

In Shakeflat Creek, there were 19 days in 2001 when water temperatures exceeded a daily average of 19ºC (primarily in August). There was only one day in August of 2001 when water temperatures exceeded a daily maximum of 24ºC. There was no day in 2000, when water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC (Table CAWG 5-138; Figure CAWG 5-30). Air temperatures during July and August 2001 were near normal and warmer than normal, respectively (Table CAWG 5-11).

Shakeflat Creek provided water to the San Joaquin River with average monthly temperatures from 12.2ºC to 18.9ºC (Table CAWG 5-139). Monthly maximum temperatures did not exceed 24.7ºC. Water from Shakeflat Creek was frequently warmer than water released from Mammoth Pool Dam during the summer and may have contributed to increased temperatures in the reach. During the fall, Shakeflat Creek contributed cooler water to the river than was released at Mammoth Pool Dam.

Water temperatures in Horsethief and Fish Creeks were lower than temperatures in Shakeflat Creek. In Horsethief and Fish Creeks, there was no day when water temperatures exceeded a daily average of 19ºC in either 2000 or 2001. Temperatures in Horsethief and Fish Creeks did not exceed a daily maximum of 24ºC in 2000 or 2001 (Table CAWG 5-138; Figure CAWG 5-30). During August 2000, air temperatures were warmer than normal. Large diurnal fluctuations in water temperatures corresponded to fluctuations in air temperatures recorded at the Mammoth Pool Powerhouse. Air temperatures during July through September 2001 were near normal, warmer than normal and warmer than normal, respectively. Average monthly water temperatures in Horsethief and Fish creeks were cold, 13.9ºC or less and 15.4ºC or less, respectively,

with monthly maximum temperatures not exceeding 18.4ºC or 23.8ºC, respectively (Table CAWG 5-139).

Rock Creek has its confluence with the river at San Joaquin RM 22.55 and the diversion is located approximately 0.4 miles upstream of the confluence with the river. Diverted water is conveyed into Mammoth Pool Power Tunnel. Rock Creek Diversion is designed to operate passively and at very low flows it does not divert water. It was operational throughout the monitoring period.

Two water temperature recorders were deployed in Rock Creek (Map CAWG 5-5). Water temperatures at the diversion exceeded a daily average of 19ºC for six days in July and August 2000 and 16 days in 2001, primarily in August. Air temperatures during July and August 2000 were cooler than normal and warmer than normal, respectively. Air temperatures during July and August 2001 were near normal and warmer than normal, respectively (Table CAWG 5-11). There was no day when water temperatures exceeded a daily maximum of 24ºC in either 2000 or 2001 (Tables CAWG 5-140 and 5-141; Figure CAWG 5-31). The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A47 and H-B47.

Water temperatures upstream of the confluence with the San Joaquin River exceeded a daily average of 19ºC for 19 days in 2000 and 72 days in 2001 (in June, July, and August). During 2000, June was much warmer than normal, July and August 2000 were cooler than normal and warmer than normal, respectively. Air temperatures during June through August 2001 were warmer than normal, near normal and warmer than normal, respectively. There was no day when a water temperature exceeded a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-140). The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A48 and H-B48.

Water temperatures increased in Rock Creek in the 0.3-mile bypass reach from upstream of the diversion to upstream of the confluence with the river. The increase in water temperature in the bypass reach exceeded 5ºF in 17 days in June of 2001 (Table CAWG 5-142), and on most of those days mean daily water temperatures exceeded the 19°C criterion downstream of the diversion. The number of days increases in daily maximum water temperature exceeded 5°F are presented in Table CAWG 5-143. Air temperatures in June of 2001 were warmer than normal with an exceedance value of 18 percent (Table CAWG 5-11).

Ross Creek has its confluence with the river at San Joaquin RM 18.7 and the diversion is located approximately 0.85 mile upstream of the confluence with the river. Water is diverted into the Mammoth Pool Power Tunnel. At very low flows, it does not divert water. The diversion was operational through most of the monitoring period, although flow was not always present. Ross Creek has a relatively small drainage area and the creek was dry upstream of the diversion by mid-June or early July in both years monitored.

Two water temperature recorders were deployed in Ross Creek (Map CAWG 5-6). Monitoring was generally conducted during the time that the diversion was operational. Water temperatures exceeded a daily average of 19ºC for many days, and exceeded a daily maximum of 24ºC for a substantial number of days, at both locations in Ross Creek. It should be noted that May of 2001 was the warmest month in the historical period of record (exceedance value of two percent), and June was warmer than most (exceedance value of 17 percent), which may have contributed to increased natural warming (Table CAWG 5-11). Furthermore, when creek flows decrease before they dry completely, air temperature is likely to have a substantial effect on water temperatures.

Water temperatures at the diversion exceeded a daily average of 19ºC for 38 days in 2000 and 35 days in 2001. Water temperatures exceeded a daily maximum of 24ºC for 15 days in 2000 and 18 days in 2001 (Table CAWG 5-144). The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A49 and H-B49. Air temperatures during June through August 2000 were hot, cooler than normal, and warmer than normal (Table CAWG 5-11). Water year 2000 was an above normal water year. Water temperatures in Ross Creek upstream of the confluence with the San Joaquin River exceeded a daily average of 19ºC for half the days in May and almost all days recorded in June and July of 2001. Water temperatures exceeded a daily maximum of 24ºC for over half of May and most of the days recorded in June and July of 2001 (Table CAWG 5-144). The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A50 and H-B50.

Ross Creek provided relatively warm water to the San Joaquin River in the early portion of the summer of 2001 (normal water year), with average monthly temperatures ranging from 18.7ºC to 23.1ºC between May and July. Average monthly water temperatures in 2000 (dry water year) were substantially cooler, ranging from 12.0ºC to 14.0ºC in June, July and October, but fewer data are available for 2000 (Table CAWG 5-145).

Water temperatures increased in the bypass reach of Ross Creek between the diversion and the confluence with the river. The increase in daily mean water temperatures exceeded 5ºF for 47 of the 73 days recorded in 2001, for most of May and over half of June, and on many of those days mean daily water temperatures exceeded the 19°C criterion downstream of the diversion. Insufficient data are available to make the comparison in 2000 (Tables CAWG 5-146 and 5-147). Air temperatures in May of 2001 were the warmest on record and during June they were warmer than normal. Air temperatures during July 2001 were near normal (Table CAWG 5-11). Water year 2001 was also a dry water year.

5.3.4 BIG CREEK POWERHOUSE 3 FOREBAY (DAM 6)

The Big Creek Powerhouse 3 forebay is located behind Dam 6 at San Joaquin RM 17.0. Water from the forebay is diverted through Tunnel 3 to Big Creek Powerhouse 3 upstream of Redinger Lake. The tunnel has an invert at the bottom of the impoundment. Temperature monitoring results and comparisons to evaluation criteria are presented in Tables CAWG 5-148 and 5-149 and in Figures CAWG 5-33 and 5-34.

5.3.4.1 Big Creek Powerhouse 3 Forebay Temperature Profiles

Water temperature profiles were taken monthly directly upstream of the dam from May through October of 2001 (Figure CAWG 5-33). Thermal gradients formed in June and July, and a thermocline formed between four to five meters in depth in August and September. No thermal stratification was observed in May or October.

Releases are made from the cooler bottom waters of the forebay during the months when it is thermally stratified. Water temperatures at the deepest points of the water temperature profiles were cool, ranging from 8.6 to 16.8ºC from May through October.

5.3.4.2 Inflow to Big Creek Powerhouse 3 Forebay (Dam 6)

Inflow to the Big Creek Powerhouse 3 forebay includes flows from the San Joaquin River and Big Creek. Most of the inflow is from the Mammoth Pool Powerhouse tailrace and Big Creek Powerhouse 8.

Water is provided to the Mammoth Pool Powerhouse from the bottom of Mammoth Pool Reservoir. A temperature recorder was deployed in the Mammoth Pool Powerhouse tailrace. The Mammoth Pool Powerhouse tailrace provided cool water input to the forebay with average monthly water temperatures ranging from 10.8ºC to 21.3ºC (Table CAWG 5-148; Figure CAWG 5-34). Water temperatures in the Mammoth Pool Powerhouse Tailrace exceeded a daily average of 19ºC for one day in August 2000 and for 52 days in 2001. There was no day when a water temperature exceeded a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-149). Air temperatures for all of these months were warmer than normal. Average monthly water temperatures in the Mammoth Pool Powerhouse tailrace were similar to water temperatures at the Mammoth Pool tunnel intake in 2001, although they did become warmer or cooler at times, due to differences in temperatures between the depths of the intake and the recorder.

One water temperature recorder was deployed in the Big Creek Powerhouse 8 Tailrace in the forebay at San Joaquin RM 17.25. The tailrace provided cool water to the forebay on the San Joaquin River with monthly average temperatures 16.6ºC or less and maximum temperatures that did not exceed 18.5ºC (Table CAWG 5-148; Figure CAWG 5-34). Water temperatures increased steadily through the summer months, then began to decrease in October. There was no day when a water temperature exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-149).

5.3.5 Stevenson Reach of the San Joaquin River and Redinger Lake

Water temperatures were recorded at multiple locations in the Project bypass reach of the San Joaquin River between Dam 6 and the Tunnel 4 intake at Redinger Lake, from San Joaquin RM 17.0 to 18.2. Temperature monitoring results and comparisons with evaluation criteria are presented in Tables CAWG 5-150 through 5-173 and Figures CAWG 5-35 through 5-37. The number of days with daily temperatures exceeding each

of a range of temperatures are presented in Appendix H Tables H-A51 through H-A53 and Tables H-B51 through H-B53.

This reach of the San Joaquin River contains a native fish assemblage including hardhead, Sacramento pikeminnow, and Sacramento sucker (see CAWG 7 Fisheries Report). As discussed under methods (Section 3.5.5.2), these fish have different temperature requirements than trout species, among which include warmer temperature preferences. Optimal temperatures for hardhead are 24 to 28°C, while temperatures of 24 to 27°C are lethal to trout except for short exposures (Moyle 2002). Hardhead preference temperatures range from 15.3°C to 28.4°C. This range is discussed with regard to evaluation of temperature criteria for each of the sites in this reach.

5.3.5.1 Downstream of Dam 6

A temperature recorder was deployed in the San Joaquin River downstream of Dam 6 at San Joaquin RM 17.0 from May through October of 2001 (Map CAWG 5-2). Data from this monitoring station are representative of release water temperatures as they first enter the river from the dam. There was no day when water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in 2001 (Table CAWG 5-150, Appendix H Tables H-A51 and H-B51; Figure CAWG 5-35).

Temperatures at this site ranged from below the hardhead preference range (defined as 15.3 to 28.4°C) to the low end of that range. There was a total of 75 days of 184 monitored that occurred within that range during 2001 and conversely, 109 of the days that fell outside the preferred range (Table CAWG 5-151).

Mean daily water temperature differences between the San Joaquin River upstream of the confluence with the SFSJR and downstream of Dam 6 exceeded 5°F for two days in May and 26 days in October, but for no days in June through September of 2001 (Table CAWG 5-152). The number of days differences in daily maximum water temperature exceeded 5°F are presented in Table CAWG 5-153 and 154. Mean daily water temperature increases between upstream of Mammoth Pool Powerhouse and downstream of Dam 6 did not exceed 5°F (Table CAWG 5-155).

Mean daily water temperature differences between Big Creek upstream of Powerhouse 8 and the San Joaquin River downstream of Dam 6 exceeded 5°F for 20 days in October but for no other days in 2001 (Table CAWG 5-156). There were no days that daily maximum water temperature differences exceeded 5°F (Table CAWG 5-157).

5.3.5.2 Upstream of Stevenson Creek

Releases from Dam 6 contribute the majority of the flow in the San Joaquin River between Dam 6 and upstream of Stevenson Creek. A temperature recorder was deployed in the San Joaquin River upstream of Stevenson Creek at San Joaquin RM 15.5. Average monthly water temperatures ranged from 12.8ºC to 21.4ºC, with maximum temperatures as high as 24.9ºC (Table CAWG 5-150). Observed water temperatures exceeded a daily average of 19ºC for only nine days in 2000, but for 92

days in 2001 (Table CAWG 5-151 and Appendix H Table H-A52). Observed water temperatures exceeded a daily maximum of 24ºC for three days in July of 2001, but did not exceed 22°C in 2000 (Appendix H Table H-B52).

Temperatures at this site ranged from below the hardhead preference range (defined as 15.3 to 28.4°C) to well within that range during 2000 and 2001. There were 84 of 117 days monitored that fell into the preference range during 2000 and 33 days that fell outside of the range due to cool temperatures. There were 146 days of 184 monitored that occurred within that range during 2001, and 38 days that were outside the range due to cool temperatures (Table CAWG 5-151). Temperature differences between the San Joaquin River upstream of the confluence with the SFSJR and upstream of Stevenson Creek exceeded 5°F for a few days monitored in August, almost half the days in September, and most days in October of 2000. Temperature differences exceeded 5°F for about half of May, most days in June, July, and October, but no days in August and eight days in September of 2001 (Table CAWG 5-158). The number of days increases in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-159 and 5-160. Mean daily water temperature differences between upstream of Mammoth Pool Powerhouse and upstream of Stevenson Creek did not exceed 5°F (Table CAWG 5-161).

Mean daily water temperature differences between Big Creek upstream of Powerhouse 8 and the San Joaquin River upstream of Stevenson Creek exceeded 5°F for three days in 2000 and one day in 2001 (Table CAWG 5-162). There were three days in 2000 and one day in 2001 that daily maximum water temperature differences exceeded 5°F (Table CAWG 5-163).

5.3.5.3 Downstream of Big Creek Powerhouse 3

A temperature recorder was deployed in the San Joaquin River downstream of Big Creek Powerhouse 3 near Redinger Lake at RM 11.2. Stevenson Creek and releases from Dam 6 contribute the majority of the flow to the San Joaquin River upstream of Powerhouse 3. Powerhouse 3 flows originate from water diverted from Dam 6. The cool water input from Powerhouse 3 provides cool water habitat in this section of the San Joaquin River. Average monthly water temperatures were 17.5ºC or less (Table CAWG 5-164; Figure CAWG 5-36). There was no day when water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-165 and Appendix H Tables H-A53 and H-B53).

Temperatures at this site ranged from below the hardhead preference range (defined as 15.3 to 28.4°C) to within that range during 2000 and 2001. There were 79 of 130 days monitored that fell into the preference range, and conversely 51 days that fell outside of the preference range during 2000. There were 75 days of 184 monitored that occurred within and 109 days that occurred outside the hardhead temperature preference range during 2001. The reduced number of days that occurred within the preference range was a function of cool water delivered by Big Creek Powerhouse 3 (Table CAWG 5-165). Mean daily water temperature differences between the San Joaquin River upstream of the confluence with the SFSJR and downstream of Powerhouse 3

exceeded 5°F for 11 days in September and all days monitored in October 2000. Temperature differences exceeded 5°F for one day in May, one day in September, and all days monitored in October, but no days in June, July, or August of 2001 (Table CAWG 5-166). The number of days differences in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-167 and 5-168. Mean daily water temperature differences between upstream of Mammoth Pool Powerhouse and downstream of Powerhouse 3 exceeded 5°F for one day in October of 2000 and six days in October of 2001 (Table CAWG 5-169).

There was no day in which mean daily water temperature differences between Big Creek upstream of Powerhouse 8 and the San Joaquin River downstream of Big Creek Powerhouse 3 exceeded 5°F (Table CAWG 5-170). There were 12 days in October 2001 that daily maximum water temperature differences exceeded 5°F (Table CAWG 5-171).

5.3.5.4 Redinger Lake at Italian Bar Bridge

A temperature recorder was deployed in the San Joaquin River at the Italian Bar Bridge in the upstream portion of Redinger Lake at RM 9.9. Average monthly water temperatures ranged from 9.2ºC to 19.7ºC (Table CAWG 5-164; Figure CAWG 5-36).

Observed water temperatures exceeded a daily average of 19ºC for 22 days in 2000 and for 50 days in 2001. Many of these days occurred in September of both years, and in July of 2001. There was no day when an observed water temperature exceeded a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-165).

Temperatures at this site ranged from below the hardhead preference range (defined as 15.3 to 28.4°C) to well within that range during 2000 and 2001. There were 88 of 130 days monitored that fell into the preference and conversely, 42 out of 130 that were outside of the range during 2000. There were 104 days of 158 days monitored that occurred within that range during 2001 and 54 that fell outside the range. The increased number of days that fell within the hardhead preference range reflects the warmer temperatures that occurred within Redinger Lake (Table CAWG 5-165).

5.3.5.5 Tunnel 4 Intake (Redinger Lake)

A temperature recorder was deployed in the San Joaquin River at the Tunnel 4 Intake in Redinger Lake at San Joaquin RM 6.1. This location represents the downstream end of Redinger Lake and the end of the monitored reach. Average monthly water temperatures ranged from 11.0°C to 19.9°C (Table CAWG 5-164; Figure CAWG 5-36). Observed water temperatures exceeded a daily average of 19°C for 33 days in 2000 and 31 days in 2001 (Table CAWG 5-165). Observed water temperatures exceeded a daily maximum of 24°C only for five days in 2000 and for no days in 2001.

Temperatures at this site ranged from below the hardhead preference range (defined as 15.3 to 28.4°C) to well within that range during 2000 and 2001. There were 92 of 126 days monitored that fell into the preference range during 2000, and 34 that fell outside the range due to cool temperatures. There were 111 days of 173 monitored that

occurred within that range during 2001, and 62 days that were outside the range due to cool temperatures (Table CAWG 5-165).

5.3.5.6 Saginaw Creek

Saginaw Creek is a tributary of the San Joaquin River at Redinger Lake (San Joaquin RM 9.1), downstream of the Italian Bar Bridge. It is a small stream that goes dry in the summer. A temperature recorder was deployed in the Saginaw Creek 0.2 miles upstream of the confluence with Redinger Lake. Average monthly water temperatures in Saginaw Creek ranged from 18.2ºC to 22.7ºC (Table CAWG 5-172; Figure CAWG 5-37). Observed water temperatures exceeded a daily average of 19ºC for all days monitored in June and July, and for 12 days in May of 2001 (Table CAWG 5-173). Observed water temperatures exceeded a daily maximum of 24ºC for seven out of nine days in July of 2000, for all days monitored in June, and 10 out of 31 days in May of 2001.

Temperatures monitored at this site, when flow was present, were within the hardhead preference range (defined as 15.3 to 28.4°C) during 2000 and 2001. There was a total of nine days monitored during 2000; all fell within the preference range. There were 33 days of 37 monitored that occurred within that range during 2001, and four days that did not, due to cool temperatures (Table CAWG 5-173).

5.4 BIG CREEK DRAINAGE

5.4.1 INTRODUCTION

The Big Creek drainage begins upstream of Huntington Lake with its tributaries and other inflows and ends at its confluence with the San Joaquin River downstream of Big Creek Powerhouse 8 (Figure CAWG 5-5). Mean water temperatures were recorded at monitoring stations located throughout Big Creek (Map CAWG 5-7). Huntington Lake is located on Big Creek upstream of Dam 1. A number of tributaries that flow into Huntington Lake were monitored including Rancheria, Potter, Coon, Line and Home Camp Creeks. Ward Tunnel discharges water from the upper portion of the Project Area through Portal Powerhouse and a Howell-Bunger valve into Huntington Lake (Figure CAWG 5-5).

Huntington Lake meteorological station and an air temperature/relative humidity recorder upstream of Big Creek Powerhouse 2 were used to characterize meteorological conditions in the Big Creek Reach.

Temperature monitoring results and comparisons to evaluation criteria are presented in Tables CAWG 5-174 through 5-309 and Figures CAWG 5-38 through 5-59. The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A54 through H-A73 and Tables H-B54 through H-B73.

5.4.2 HUNTINGTON LAKE

Dam 1 on Big Creek impounds Huntington Lake at RM 9.9. Dams 2, 3 and 3A, located in other areas of the lake, also form the current Huntington Lake and allow its current volume of storage. Water from Huntington Lake is diverted to Big Creek Powerhouse 1 within the Big Creek chain (Figure CAWG 5-5). Currently, Huntington Lake water may also be diverted through Balsam Meadow Forebay to Shaver Lake through Tunnel 7 (also known as the Huntington-Pitman Siphon) to Eastwood Power Station. Water from Huntington Lake also is released through Tunnel 7 to provide augmented flow to North Fork Stevenson Creek.

5.4.2.1 Huntington Lake Temperature Profiles

Water temperature profiles were taken monthly in three locations identified as the *Inflow End*, *Middle*, and *Dam* locations during August and October of 2000, and May through October of 2001 (Figures CAWG 5-38 and CAWG 5-39). Water temperatures were generally similar between the three monitoring locations throughout the summer within each year, although water temperatures were sometimes warmer in the shallow *Inflow End*. Thermal stratification of the lake occurred in the summer months. A thermocline or temperature discontinuity between the epilimnion and hypolimnion occurred in the summer months, but in September and October the lake mixed. Mixing occurred when water temperatures cooled so that density differences between the epilimnion and hypolimnion were insufficient to maintain stratification.

Releases from Huntington Lake to Big Creek are made from the cool deeper layers of Huntington Lake. In 2001, for which there is a more complete thermal record, water temperatures in the lake warmed substantially between May and September, but began to cool in October. Diversions to Big Creek Powerhouse 1 also were made from near the bottom of the dam.

5.4.3 INFLOWS TO HUNTINGTON LAKE

Inflow to the lake is from natural flows from Big Creek and its pre-impoundment tributaries, including Rancheria, Potter, Coon, Line and Home Camp Creeks. Rancheria Creek upstream of the Portal Powerhouse tailrace is included in the Portal Project License Application (SCE 2003) and is not reported in this section. Huntington Lake receives a large portion of water from Ward Tunnel. Inflow volume at Portal Powerhouse averaged 1,346 acre-feet per day from May through October (USGS data). This inflow, times the number of days in that period, exceeds the storage of Huntington Lake making it the major inflow to the lake. Days with daily temperatures exceeding each of a range of temperatures for streams tributary to Huntington Lake are presented in Appendix H Tables H-A54, H-A63 through H-A67 and Tables H-B54, H-B63 through H-B67.

5.4.3.1 Big Creek (Upstream of Huntington Lake)

Big Creek, upstream of Huntington Lake, is an undiverted tributary located at the southeastern end of Huntington Lake. Upstream of Huntington Lake, the creek is

affected by modifications associated with recreational facilities and a road crossing. One water temperature recorder was deployed in Big Creek upstream of Huntington Lake at RM 13.4. Average monthly water temperatures in Big Creek upstream of Huntington Lake were 17.9ºC or less (Table CAWG 5-174; Figure CAWG 5-40). However, monthly maximum temperatures were as high as 38.1ºC in 2001. This was likely due to a horse crossing constructed across the stream in 2001, which created a wide, shallow, stagnant impoundment on an otherwise narrow stream. The temperature monitor, placed in the stream before the impoundment was formed, was located in the deepest portion of this impoundment and checked regularly. Observed water temperatures occasionally exceeded a daily average of 19ºC and often exceeded a daily maximum of 24ºC in 2001, but not in 2000 (Table CAWG 5-175 and Appendix H Tables H-A54 and H-B54).

5.4.3.2 Ward Tunnel Outlet (Portal Tailrace)

Huntington Lake receives a large portion of its inflow from Ward Tunnel via Portal Powerhouse and an adjacent Howell-Bunger valve. Ward Tunnel diverts water from upstream Project diversions and storage and discharges water into the lower segment of Rancheria Creek, immediately upstream of Huntington Lake. The Portal Powerhouse tailrace provided cool water to Huntington Lake with average monthly temperatures of 16.8ºC or less (Table CAWG 5-174; Figure CAWG 5-40). Water temperatures were cooler than those in Rancheria Creek upstream of the tailrace and Big Creek upstream of Huntington Lake in the early summer. By about August or September, when water temperatures begin to cool in the creeks and the backcountry reservoirs started mixing, temperatures in the tailrace were warmer. There was no day when water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 in Rancheria Creek upstream of Huntington Lake (Table CAWG 5-175 and Appendix H Tables H-A63 and H-B63).

5.4.3.3 Potter, Coon, Line, and Home Camp Creeks

Potter, Coon, Line, and Home Camp Creeks are undiverted tributaries that flow into Huntington Lake. Water temperature recorders were deployed in each tributary. Average monthly water temperatures were cold, 13.3°C or less (Table CAWG 5-174; Figure CAWG 5-40). Monthly maximum temperatures were 21.6°C or less. There was no day when observed water temperatures exceeded a daily average of 19°C or a daily maximum of 24°C in either 2000 or 2001 in Potter, Coon, or Line creeks. (Daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A64 through H-A66 and Tables H-B64 through H-B66). In Home Camp Creek, water temperatures did not exceed a daily average of 16°C or a daily maximum of 22°C (Table CAWG 5-175 and Appendix H Tables H-A67 and H-B67). Fluctuations in mean daily water temperatures corresponded to mean daily air temperatures (Figure CAWG 5-40). Water temperatures in Potter, Coon, Line, and Home Camp Creeks were substantially cooler than those in Big Creek upstream of Huntington Lake.

5.4.4 BIG CREEK

5.4.4.1 Overview of Big Creek

Water temperatures were recorded at multiple locations in Big Creek in the three stream reaches between Huntington Lake and the confluence with the San Joaquin River ranging from Big Creek RM 9.9 to Big Creek RM 0.1 (Maps CAWG 5-6 and 5-7).

Mid month daily mean water temperatures recorded at monitoring stations in Big Creek were graphed by river mile to show the trends in water temperatures in a downstream direction by month for 2000 and 2001 (Figures CAWG 5-41 and 5-42). Daily mean temperatures for each location for each year were plotted in other figures discussed below. In general, during the summer months, water temperatures increased in a downstream direction from release points below dams to the Project forebays, where powerhouse tailraces (located upstream of the dams on Big Creek) provided cool water inputs. Tributaries, such as Balsam Meadow Creek also affected temperatures by contributing cool water during the warmer months. During the cooler months, September and October, there was generally cooling of the water flowing in the bypass reaches of Big Creek.

5.4.4.2 Big Creek Dam 1 to Upstream of Big Creek Powerhouse 1 Reach

The uppermost bypass reach of Big Creek is the reach from Huntington Lake Dam 1 to upstream of Big Creek Powerhouse 1 (Big Creek RM 9.9 to Big Creek RM 6.4), which discharges into the Big Creek Powerhouse 2 Forebay formed by Dam 4. Water temperatures in this reach of Big Creek were generally cool and there was no day when observed water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC (Figure CAWG 5-43).

Air temperatures during June through August 2000 were hot, cooler than normal, and warmer than normal, respectively. Air temperatures during June and July 2001 were warmer than normal and near normal (Table CAWG 11), respectively. As shown in Figures CAWG 5-41 and 5-42, the reach of Big Creek between Dam 1 and upstream of Big Creek Powerhouse 1 warmed during the summer months and cooled during the fall.

Water releases from Dam 1 influence water temperatures in Big Creek directly below Huntington Lake. One water temperature recorder was deployed in Big Creek downstream of Dam 1 at RM 9.9. Average monthly water temperatures increased steadily from 6.9ºC to 15.5ºC during 2001 (Table CAWG 5-176; Figure CAWG 5-43). Water temperatures immediately below Dam 1 did not correspond to air temperatures as measured at Huntington Lake (Figure CAWG 5-43) due to the release of water from depth in the lake. The effect of air temperature is apparent in data collected further downstream, where the pattern of increases and decreases in water and air temperatures indicate a corresponding relationship. Days that observed daily mean water temperature differences exceeded 5°F between tributaries to Huntington Lake and downstream of Dam 1 generally occurred in September and October, but not in the summer months (Tables CAWG 5-177 through 5-182). The number of days differences

in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-183 through 5-188.

These data suggest that releases from Dam 1 have a cooling effect in the creek for most of the summer, as water is drawn from the cool hypolimnion of the lake, but not by September and October when the thermal layers in the lake begin to mix. However, water temperatures began to cool by mid- to late September in both 2000 and 2001. There was no day when an observed water temperature exceeded a daily average of 19ºC or a daily maximum of 20ºC in either 2000 or 2001 downstream of Dam 1 (Table CAWG 5-189 and Appendix H Tables H-A55 and H-B55).

A temperature recorder was deployed in Big Creek Canyon downstream from Dam 1 at Big Creek RM 7.65, which is 2.4 miles from the release point of the dam. Average monthly water temperatures were 14.1ºC or less (Table CAWG 5-176). Daily water temperature fluctuations in Big Creek Canyon generally corresponded to mean daily air temperature fluctuations recorded at Huntington Lake in both 2000 and 2001 (Figure CAWG 5-43). The number of days water temperature differences exceeded 5°F between tributaries to Huntington Lake and Big Creek Canyon are presented in Tables CAWG 5-190 through 5-201. Observed daily mean water temperature differences sometimes exceeded 5°F in September and October, occasionally in August, but not in May through July. Overall, water temperatures were cool and there was no day when observed water temperatures exceeded a daily average of 19ºC. The number of days with daily average temperatures exceeding each of a range of temperatures are presented in Appendix H Table H-A56. There was no day that temperatures exceeded a daily maximum of 24ºC at the Big Creek Canyon site (Table CAWG 5-189 and Appendix H Table H-B56).

A temperature recorder was deployed in Big Creek upstream of Big Creek Powerhouse 1 at Big Creek RM 6.4. Average monthly water temperatures were 14.1ºC or less (Table CAWG 5-176; Figure CAWG 5-43). The number of days water temperature differences exceeded 5°F between tributaries to Huntington Lake and Big Creek upstream of Powerhouse 1 are presented in Tables CAWG 5-202 through 5-213. Water temperatures in Big Creek upstream of Big Creek Powerhouse 1 were cold and there were no days when observed water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC (Table CAWG 5-189 and Appendix H Table H-A57 and H-B57).

5.4.4.3 Big Creek Powerhouse 2 Forebay (Dam 4)

Dam 4, located at RM 5.9, creates a medium-size pool (60 acre-feet) in Big Creek. Inflow to the forebay comes from the Big Creek Powerhouse 1 tailrace, Big Creek upstream of Big Creek Powerhouse 1, and Pitman Creek. Water entering the forebay is diverted through Tunnel 2 to Big Creek Powerhouse 2 located upstream of Dam 5 (RM 1.65).

Powerhouse 1 Tailrace

Water temperatures were recorded at the Big Creek Powerhouse 1 tailrace at RM 6.3. The Big Creek Powerhouse 1 tailrace provided cold water input to Big Creek with average monthly temperatures 15.1ºC or less (Table CAWG 5-214). Maximum monthly water temperatures did not exceed 16.1ºC. Average monthly water temperatures in the Big Creek Powerhouse 1 tailrace were about 0.8 to 4.6ºC cooler than in Big Creek upstream of Big Creek Powerhouse 1 in May through August, but became comparatively warmer in September and October by 2.0 to 5.7ºC, when flows in the stream cooled (Figure CAWG 5-44). There was no day when water temperature exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-215).

Pitman Creek

Pitman Creek is a tributary on the southeastern side of Big Creek downstream of Huntington Lake. Its confluence with Big Creek is at RM 6.3 at the forebay. Pitman Creek Diversion is located across Pitman Creek less than 1.6 miles upstream of its confluence with Big Creek. Diverted water is conveyed through a 185-foot-deep bore hole abutting the left side of the dam face, which intersects Tunnel No. 7. This diversion was in operation prior to temperature monitoring beginning on May 3, 2000. Monitoring continued during operation, which lasted until August 4. During 2001, diversion operations began prior to May 3, when monitoring commenced. Temperatures were monitored through the cessation of diversion operations on July 18, 2001.

Two water temperature recorders were deployed in Pitman Creek (Map CAWG 5-7). Stream temperatures in Pitman Creek were cool, with average monthly stream temperatures of 16.7°C or less and monthly maximum temperatures of 22.3°C or less (Table CAWG 5-214; Figure CAWG 5-45). During the months of May through July when the diversion was operational, Pitman Creek provided cold water input to Tunnel No. 7. Average monthly water temperatures upstream of the confluence of Big Creek were 0.1 to 0.9°C cooler than at the diversion in July and August, but were 1.1 to 2.6°C warmer in other months. Temperature increases exceeded 5°F for one day in October of 2000 and for 26 days in 2001, during May and October, when water temperatures are coolest. Differences in mean daily water temperatures exceeded 5°F during eight days in May 2001 during Project operations (Table CAWG 5-216). Differences in daily maximum water temperatures during Project operations exceeded 5°F for six days in May 2001 (Table CAWG 5-217). There was no day when observed water temperatures exceeded a daily average of 19°C or a daily maximum of 23°C in Pitman Creek in either 2000 or 2001 (Table CAWG 5-215). The number of days with daily temperatures exceeding each of a range of temperatures in Pitman Creek upstream of the diversion are presented in Appendix H Tables H-A68 and H-B68. There was no day when an observed water temperature exceeded a daily average of 18°C or a daily maximum of 20°C in Pitman Creek upstream of the confluence with Big Creek (Appendix H Tables H-A69 and H-B69). Air temperatures during May 2001 were the warmest on record (Table CAWG 5-11).

Tunnel 2 Intake

Tunnel 2 is the conduit for water from Big Creek Powerhouse 2 Forebay to Big Creek Powerhouse 2. Average monthly water temperatures at the Tunnel 2 intake were cold, 14.6°C or less (Table CAWG 5-214). There was no day when water temperatures exceeded a daily average of 19°C or a daily maximum of 24°C in either 2000 or 2001 (Table CAWG 5-215).

5.4.4.4 Dam 4 to Upstream of Big Creek Powerhouse 2 Reach

The bypass reach of Big Creek from Dam 4 to upstream of Big Creek Powerhouse 2 (Big Creek RM 2.1 to RM 5.9) contains several tributaries including Balsam, Ely, and Adit No. 8 Creeks.

The monitoring station directly downstream of Dam 4 at Big Creek RM 5.9 represents water temperatures at the upstream end of the bypass reach. Average daily water temperatures in Big Creek were graphed by river mile to show the trends in water temperature in a downstream direction by month for 2000 and 2001 (Figures CAWG 5-41 and 5-42). Average monthly water temperatures were 17.2ºC or less (Table CAWG 5-218; Figure CAWG 5-46). Water temperature fluctuations downstream of Dam 4 corresponded to air temperature fluctuations recorded at Big Creek Powerhouse 2, but temperature fluctuations were relatively small (Figure CAWG 5-46). There was no day when an observed water temperature exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-219). The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A58 and H-B58.

Observed daily mean water temperature differences exceeded 5°F in Big Creek between upstream of Powerhouse 1 to downstream of Dam 4 for many days in September and October, but for only one day during the summer months in 2000 (Table CAWG 5-220). However, temperature differences in this reach exceeded 5°F for most days in 2001. The number of days differences in mean daily water temperatures exceeded 5°F between Pitman Creek upstream of Powerhouse 1 and Big Creek downstream of Dam 4 are presented in Table CAWG 5-221. The number of days mean daily water temperature differences exceeded 5°F between tributaries to Huntington Lake and Big Creek downstream of Dam 4 are presented in Tables CAWG 5-222 through 5-227. The number of days differences in daily maximum water temperature that exceeded 5°F are presented in Tables CAWG 5-228 through 5-235.

In general, during the summer months in 2000, water temperatures increased in a downstream direction from Dam 4 to upstream of Big Creek Powerhouse 2, where powerhouse outflow provided cool water input. In summer 2001, warming in Big Creek occurred, between Dam 4 and upstream of Balsam Creek. Temperatures were cooler downstream of Balsam Creek for all months except May and October. Tributaries, such as Balsam Creek, likely affected temperatures by contributing cool water during the warmer months.

The next temperature monitoring site was located in Big Creek upstream of Balsam Creek at Big Creek RM 5.0, one mile downstream of Dam 4. Average monthly stream temperatures ranged from 8.7ºC to 20.3ºC (Table CAWG 5-218; Figure CAWG 5-46). Water temperature fluctuations generally corresponded to air temperatures recorded at Big Creek Powerhouse 2 (Figure CAWG 5-46). Daily mean water temperature differences exceeded 5°F in Big Creek upstream of Powerhouse 1 to upstream of Balsam Creek for most days monitored in 2001, but for far fewer days in 2000 (Table CAWG 5-236). The number of days temperature differences exceeded 5°F between Pitman Creek upstream of Powerhouse 1 and Big Creek upstream of Balsam Creek are presented in Table CAWG 5-237. Temperature differences exceeded 5°F between tributaries to Huntington Lake and Big Creek upstream of Balsam Creek for most days monitored (Tables CAWG 5-238 through 5-243) except for the summer months between this site and Big Creek upstream of Huntington Lake. The number of days differences in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-244 through 5-251). This was the first monitoring station in Big Creek downstream of Huntington Lake where average daily water temperatures exceeded 19°C (in 2001, but not in 2000) (Table CAWG 5-219). Temperatures exceeded a daily maximum of 24°C for two days in 2001, but did not exceed a daily maximum of 21°C in 2000. Days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A59 and H-B59.

A temperature recorder was deployed in Big Creek upstream of Big Creek Powerhouse 2 at Big Creek RM 2.1. Water temperatures at this site at the downstream end of the reach, were relatively cool throughout the monitoring periods in 2000 and 2001, with average monthly water temperatures of 18.5°C or less (Table CAWG 5-218; Figure CAWG 5-46). Water temperature fluctuations generally corresponded to air temperatures recorded at Big Creek Powerhouse 2, except for a drop in water temperature in 2001 that coincided with the temporary drop in temperatures observed in Big Creek downstream of Dam 4 (Figure CAWG 5-46). Tributary inflow temperatures from Balsam Creek and Ely Creek likely also influenced water temperatures within the reach.

Daily mean water temperature differences exceeded 5°F in Big Creek upstream of Powerhouse 1 to upstream of Powerhouse 2 for most days monitored in 2000 and 2001, except June of 2000 (Table CAWG 5-252). The number of days that daily mean water temperature differences exceeded 5°F between Pitman Creek upstream of Powerhouse 1 and Big Creek upstream of Powerhouse 2 are presented in Table CAWG 5-253. Temperature differences exceeded 5°F between tributaries to Huntington Lake and Big Creek upstream of Powerhouse 2 for most days monitored except June of 2000 (Tables CAWG 5-254 through 5-259), but for fewer days in the summer months in Big Creek upstream of Huntington Lake. The number of days differences in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-260 through 5-267.

In Big Creek upstream of Powerhouse 2, there were only two days in 2000 when observed water temperatures exceeded a daily average of 19ºC, while this temperature was exceeded for 17 days in 2001 (Table CAWG 5-219). There was no day when observed water temperatures exceeded a daily maximum of 24ºC in either 2000 or

2001. The number of days in which daily temperatures exceeded each of a range of temperatures are presented in Appendix H Tables H-A60 and H-B60. Air temperatures during 2000 for June through August were hot, cooler than normal, and warmer than normal, respectively. For May and June 2001 air temperatures were hot and warmer than normal, respectively (Table CAWG 5-11).

5.4.4.5 Powerhouse 8 Forebay (Dam 5)

Dam 5, located at Big Creek RM 1.65, creates a medium-sized forebay (49 acre-feet) in Big Creek. Most of the inflow is from Huntington Lake via Big Creek Powerhouse 2 (derived from the tailrace at Powerhouse 1 at Dam 4) and Shaver Lake via Big Creek Powerhouse 2A. Inflow to Big Creek Powerhouse 2A is diverted through the Tunnel 5 intake in Shaver Lake. Tunnel 5 has an invert that is deep within Shaver Lake. Water impounded behind Dam 5 is diverted through Tunnel 8 to Big Creek Powerhouse 8 near the confluence with the San Joaquin River, but some of the water is released into Big Creek downstream of Dam 5.

To assess the temperature effect of inflows on the forebay, temperature data from Big Creek Powerhouses 2 and Big Creek Powerhouse 2A tailraces were graphed with temperature data in Big Creek upstream of Big Creek Powerhouse 2 (Figure CAWG 5-47).

A temperature recorder was deployed in the Big Creek Powerhouse 2 tailrace at Big Creek RM 1.85. The Big Creek Powerhouse 2 and Big Creek Powerhouse 2A tailraces provided cool water input to Big Creek with average monthly temperatures of 17.6ºC or less and 17.2ºC or less, respectively (Table CAWG 5-268). Water temperatures in the tailraces were cooler than those in Big Creek upstream of the Big Creek Powerhouse 2 in the early summer, but by about September, when water temperatures begin to cool in the creeks, they were warmer. At the Big Creek Powerhouse 2 and Big Creek Powerhouse 2A tailraces there was not one day when water temperature exceeded a daily average of 19ºC or a daily maximum of 24ºC in either 2000 or 2001 (Table CAWG 5-269).

Water temperatures recorded to represent the Tunnel 8 intake were measured in the near bottom depths of the forebay behind Dam 5. Water temperatures in Big Creek behind Dam 5 at the Tunnel 8 intake were cool. Average monthly water temperatures were 15.9ºC or less and monthly maximum temperatures did not exceed 18.3ºC (Table CAWG 5-268). There were no days when observed water temperatures exceeded a daily average of 19ºC or a daily maximum of 24ºC (Table CAWG 5-269).

5.4.4.6 Dam 5 to Upstream of Big Creek Powerhouse 8 Reach

The bypass reach of Big Creek from Dam 5 to upstream of Big Creek Powerhouse 8 extends from Big Creek RM 1.65 to RM 0.1. Average daily water temperatures in Big Creek were graphed by river mile to show the trends in water temperature in a downstream direction by month for 2000 and 2001 (Figures CAWG 5-41 and 5-42). During all months of 2000 and the summer months of 2001, water temperatures

increased from Dam 5 to upstream of Big Creek Powerhouse 8, where powerhouse inflow provided cool water input. In October 2001, the reach cooled rather than warmed.

Dam 5 is located on Big Creek at RM 1.65. A temperature recorder was deployed in Big Creek directly downstream of Dam 5 at RM 1.65, which is 0.3 miles downstream of the recorder in Big Creek upstream of Big Creek Powerhouse 2 (Table CAWG 5-270). Mean daily water temperatures did not fluctuate substantially compared to fluctuations in air temperatures at Big Creek Powerhouse 2, indicating that water temperatures largely originating from releases from upstream reservoirs and traveling through penstocks are less affected by air temperatures than flows within the bypass reaches (Figure CAWG 5-48). There was no day when water temperatures exceeded a daily average of 18ºC or a daily maximum of 20ºC in either 2000 or 2001 (Table CAWG 5-271). The number of days with daily temperatures exceeding each of a range of temperatures is presented in Appendix H Tables H-A61 and H-B61.

Observed mean daily water temperature differences exceeded 5°F in Big Creek upstream of Powerhouse 2 to downstream of Dam 5 for five days in September and 21 days in October of 2000, and for five days in October of 2001, but for no days in the summer months (Table CAWG 5-272). Mean daily water temperature differences exceeded 5°F between tributaries to Huntington Lake and Big Creek downstream of Dam 5 for most days monitored in September and October, but for far fewer days in the summer months (Tables CAWG 5-273 through 5-278). The number of days differences in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-279 through 5-285.

A temperature recorder was deployed in Big Creek upstream of Big Creek Powerhouse 8 near the confluence with the San Joaquin River at Big Creek RM 0.1 (1.65 miles downstream of Dam 5). Water temperatures in Big Creek upstream of Big Creek Powerhouse 8 were substantially warmer than downstream of Dam 5 in May through September, but were cooler in October (Table CAWG 5-270; Figure CAWG 5-48). Water temperature fluctuations generally corresponded to air temperatures recorded at Big Creek Powerhouse 2 (Figure CAWG 5-48). Observed daily mean water temperature differences exceeded 5°F in Big Creek upstream of Powerhouse 2 to upstream of Powerhouse 8 for 14 days (June and July) in 2000 and 12 days (May and June) in 2001 (Table CAWG 5-286). Temperature differences exceeded 5°F between tributaries to Huntington Lake and Big Creek upstream of Powerhouse 8 for most days monitored (Tables CAWG 5-287 through 5-292), but for far fewer days in the summer months that data were collected. The number of days that differences in daily maximum water temperature exceeded 5°F are presented in Tables CAWG 5-293 through 5-299. In Big Creek upstream of Powerhouse 8, observed water temperatures exceeded a daily average of 19ºC for only seven days in 2000, but for 41 days in 2001 (Table CAWG 5-271). There was no day when observed water temperatures exceeded a daily maximum of 24ºC in either 2000 or 2001. The number of days with daily temperatures exceeding each of a range of temperatures is presented in Appendix H Tables H-A62 and H-B62.

5.4.4.7 Tributaries to the Big Creek Reach

Water temperature data were collected in tributaries to Big Creek including both diverted and undiverted streams. Temperature monitoring data and comparisons with evaluation criteria are presented in Tables CAWG 5-300 through 5-309 and in Figures CAWG 5-49 through 5-51. The number of days with daily temperatures exceeding each of a range of temperatures for diverted tributaries is presented in Appendix H Tables H-A70 through H-A73 and Tables H-B70 through H-B73.

Balsam Creek is a small, steep, granitic stream located on the southern side of Big Creek downstream of Dam 4 and Pitman Creek. Its confluence with Big Creek is at RM 4.8. Balsam Meadow Forebay is discussed with Shaver Lake and North Fork Stevenson Creek. Balsam Meadow Dam is located on Balsam Creek 2.7 miles upstream of the confluence with Big Creek.

A water temperature recorder was deployed downstream of the Balsam Meadow Forebay. There was no day when an observed water temperature exceeded a daily average of 19ºC or a daily maximum of 24ºC in 2000, 2001 or 2002 (Table CAWG 5-300).

Balsam Creek Diversion is located across Balsam Creek approximately 0.7 miles upstream of its confluence with Big Creek. Diverted water is conveyed to Tunnel No. 2 where it enters through Adit No. 3. This diversion was not in operation during the 2000 and 2001 monitoring periods, but was in operation from March 28 to November 14 of 2002. However, during a May 19 visit, the valve was found turned off. After reporting that the valve was turned off, the valve was turned back on until operation of the diversion was stopped on November 14.

Two additional water temperature recorders were deployed in Balsam Creek (Map CAWG 5-7). These were located at the diversion and near the confluence with Big Creek. Stream temperatures in Balsam Creek near the confluence with Big Creek were cool, with average monthly stream temperatures of 16.5°C or less and monthly maximum temperatures of 21.6°C or less (Table CAWG 5-301). Water temperatures increased in Balsam Creek between the Balsam Diversion and upstream of the confluence with Big Creek in 2000, 2001 and 2002 (Figure CAWG 5-49). Observed water temperature increases exceeded 5°F for 10 days in 2001, but no days in 2000 and 2002 (Table CAWG 5-302). Increases in daily maximum water temperatures exceeded 5°F on many days when the diversion was in operation in 2002, but also for many days when the diversion was not in operation in 2001 (Table CAWG 5-303). The diversion was not in operation during the 2000 and 2001 monitoring periods, and therefore warming was not due to Project diversion of water in this reach during those two years. There was no day when an observed water temperature exceeded a daily average of 17°C upstream of the diversion or 19°C downstream of the diversion in 2000, 2001 or 2002 (Table CAWG 5-300). The numbers of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A70 and H-A71. There was no day when an observed water temperature exceeded the preliminary daily maximum criterion of 24°C either upstream or

downstream of the diversion in 2000, 2001 or 2002 and did not exceed 20°C upstream of the diversion or 22°C downstream (Table CAWG 5-300, Appendix H Tables H-B70 and H-B71).

Sheepthief and Ordinance Creeks are undiverted tributaries on the north side of Big Creek. Sheepthief and Ordinance Creeks have their confluences with Big Creek at RM 4.4 and 2.1, respectively. One water temperature recorder was deployed in each creek (Map CAWG 5-7). Average monthly water temperatures in Sheepthief and Ordinance Creeks were 11.7ºC or less and 17.3ºC or less, respectively (Table CAWG 5-304) (Figure CAWG 5-50). Monthly maximum temperatures did not exceed 18.7ºC in Sheepthief Creek and 21.8ºC in Ordinance Creek. There was no day when an observed water temperature exceeded a daily average of 19ºC or a daily maximum of 24ºC in Sheepthief Creek in either 2000 or 2001 (Table CAWG 5-305). However, in Ordinance Creek, observed water temperatures exceeded a daily average of 19ºC for three days in August of 2000 and for four days in 2001, including three days in July and one day in August (Table CAWG 5-305). Air temperatures in August 2000 were warmer than normal. Air temperatures during July and August 2001 were near normal and warmer than normal, respectively. There was no day when observed water temperatures exceeded a daily maximum of 24ºC in Ordinance Creek in either 2000 or 2001.

Ely Creek is a tributary on the southern side of Big Creek. Its confluence with Big Creek is at RM 3.3, between Dam 4 and Big Creek Powerhouse 2. Ely Creek Diversion is located across Ely Creek less than 1.0 mile upstream of the confluence with Big Creek. Diverted Ely Creek water is conveyed to Tunnel No. 2, where it enters through Adit No. 6. This diversion was not in operation during the monitoring periods in 2000 and 2001, so all warming was due to natural conditions and not due to Project diversion of water in this reach.

Two water temperature recorders were deployed in Ely Creek (Map CAWG 5-7). However, during 2001, a dry water year, the creek upstream of the diversion went dry on August 6. No further data could be collected at that location after that date. Some flow remained downstream of the diversion, but dropping water levels resulted in some data losses. The following discussion addresses each location for periods in which data were available. Stream temperatures in Ely Creek at the diversion were cool, with average monthly stream temperatures of 15.2°C or less and monthly maximum temperatures of 20.0°C or less (Table CAWG 5-306; Figure CAWG 5-51). Mean daily water temperatures were warmer in Ely Creek upstream of the confluence with Big Creek than at the diversion, but were slightly cooler in May (Figure CAWG 5-51). Temperature increases (based on daily mean water temperatures) between the diversion and the confluence with Big Creek exceeded 5°F for only one day in October of 2000, on a day that water was not diverted (Table CAWG 5-307). Increases in daily maximum water temperatures exceeded 5°F for a combined total of 20 days in September and October 2000, on days that water was not diverted (Table CAWG 5-308). There was no day in 2001 when increases in daily maximum water temperatures exceeded 5°F. Because the diversion was not in operation during the monitoring period, exceedances were due to natural warming and not to Project diversion of flow.

There was no day when an observed water temperature exceeded a daily average of 19°C in either 2000 or 2001 (Table CAWG 5-309). The numbers of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A72 and H-A73. Upstream of the confluence with Big Creek, a daily maximum of 24°C was exceeded for only four days in 2001. Upstream of the diversion, there were no days that the daily maximum criterion of 24°C was exceeded and maximum temperatures never exceeded 20°C (Table CAWG 5-309, Appendix H Tables H-B72 and H-B73).

5.4.5 STEVENSON CREEK DRAINAGE

The Stevenson Creek drainage includes Stevenson Creek and North Fork Stevenson Creek upstream of Shaver Lake, Shaver Lake, and Stevenson Creek downstream of Shaver Lake to the confluence with the San Joaquin River. The Shaver Lake meteorological station was used to characterize meteorological conditions in for this drainage.

5.4.6 SHAVER LAKE

Shaver Lake is impounded by Shaver Lake Dam on Stevenson Creek at RM 4.25. Water from Shaver Lake that is not released to Stevenson Creek is diverted through Tunnel 5 to Big Creek Powerhouse 2A. Stream inflow to Shaver Lake derives primarily from Stevenson and North Fork Stevenson creeks upstream of the lake. The flow in North Fork Stevenson Creek is natural flow augmented by Project releases. Shaver Lake receives most of its volume of water through Eastwood Powerhouse.

5.4.6.1 Shaver Lake Temperature Profiles

Water temperature profiles were taken monthly in two locations identified as the *Inflow End* and *Dam* locations (Map CAWG 5-8; Figures CAWG 5-52 and 5-53). Water temperatures were generally similar between the two monitoring locations throughout the summer, but water temperatures were warmer in 2001 than in 2002. Water temperatures were coolest in May and warmed over the summer months in both surface and bottom layers through August. Temperature gradients occurred in May through August, but in September and October thermal stratification decreased, water temperatures cooled at the surface and mixing was evident. A thermocline developed only in 2001, during the summer months, when mixing occurred by September or October.

Releases from Shaver Lake to Stevenson Creek are made from the deeper, cooler waters of Shaver Lake. Water temperatures released to Stevenson Creek were cold initially, but increased between May and September, reflecting the thermal structure of the lake.

5.4.6.2 Tributaries of Shaver Lake

Water temperature monitoring results and comparisons with temperature evaluation criteria for Shaver Lake tributaries are presented in Tables CAWG 5-310 through 5-315

and Figures CAWG 5-54 and 5-55. The number of days with daily temperatures exceeding each of a range of temperatures are presented in Appendix H Tables H-A74 through H-A77 and Tables H-B74 through H-B77.

Stevenson Creek flows to Shaver Lake from the east. A water temperature recorder was deployed in Stevenson Creek upstream of Shaver Lake at Stevenson Creek RM 8.35. Stevenson Creek provided cold water input to Shaver Lake with average monthly temperatures of 13.8ºC or less (Table CAWG 5-310; Figure CAWG 5-54). Maximum temperatures did not exceed 18.4ºC. Average monthly temperatures were the same as the water temperature at approximately five meters deep in Shaver Lake at the Dam in May, and 18 to 25 meters deep in July and August. By September and October, temperatures were similar to or cooler than the bottom waters of the lake. Observed water temperatures did not exceed a daily average of 16ºC or a daily maximum of 20ºC in either 2000 or 2001 (Table CAWG 5-311 and Appendix H Tables H-A74 and H-B74).

North Fork Stevenson Creek flows to Shaver Lake from the northeast. Its confluence with Stevenson Creek is at approximately RM 6.88. At approximately 3.5 miles upstream of the confluence with Stevenson Creek (approximately 2.5 miles upstream of the confluence with the lake), Tunnel 7 releases water into North Fork Stevenson Creek, which provides most of the flow in the creek. This release augments flows in the creek.

Water temperature recorders were deployed in North Fork Stevenson Creek (Map CAWG 5-8). Water temperatures in North Fork Stevenson Creek downstream of Tunnel 7 were similar to or cooler than water temperatures at the intake to Tunnel 7 in Huntington Lake. Water temperatures in the augmented reach of North Fork Stevenson Creek were warmer upstream of the confluence with Shaver Lake than downstream of Tunnel 7 in May to August, but were cooler by mid-August to September (Figure CAWG 5-55). North Fork Stevenson Creek provided cold water input to Shaver Lake with average monthly stream temperatures of 9.2 to 15.6°C and monthly maximum temperatures that did not exceed 21.2°C (Table CAWG 5-312). This corresponded to water temperatures at a depth of approximately 10 to 20 meters at the dam in Shaver Lake in May through August, but was cooler than bottom waters of the lake by August or September. Observed daily mean water temperature increases in the augmented flow reach of North Fork Stevenson Creek exceeded 5°F for 42 days in 2000 and for 59 days in 2001 (Table CAWG 5-313). Increases in daily maximum water temperatures are presented in Table CAWG 5-314. Observed water temperatures did not exceed a daily average of 19°C or a daily maximum of 24°C in either 2000 or 2001 in North Fork Stevenson Creek downstream of Tunnel 7 (Table CAWG 5-315, Appendix H Tables H-A76 and H-B76). Observed water temperatures did not exceed a daily average of 18°C and only exceeded a daily maximum of 21°C for one day upstream of the confluence with Shaver Lake (Table CAWG 5-315, Appendix H Tables H-A77 and H-B77).

Fluctuations in mean daily water temperatures in North Fork Stevenson Creek upstream of Shaver Lake corresponded to fluctuations in air temperatures recorded at the Eastwood tailrace. Mean daily water temperatures in North Fork Stevenson Creek immediately downstream of the Tunnel 7 release point did not show a close relationship

to air temperatures (Figure CAWG 5-55). This suggests that meteorological conditions influence temperatures along the stream to near the confluence with the lake, but inflow from Tunnel 7, which originates from Huntington Lake, controls water temperatures directly downstream of Tunnel 7.

5.4.6.3 Balsam Meadow Forebay

Balsam Meadow Forebay is a medium-sized impoundment, which is impounded by Balsam Meadow Dam on Balsam Creek at 2.7 miles upstream of the confluence with Big Creek. Water is diverted to the forebay from Balsam Meadow Diversion Conduit, a shunt of Tunnel 7 that carries water from Huntington Lake and Pitman Diversion to the forebay and to North Fork Stevenson Creek. The majority of flow from Balsam Meadow Forebay is routed through Eastwood Power Station and discharged to Shaver Lake. Eastwood Power Station also may operate in pumpback mode at night to supplement peak generation during the day. The water pumped from Shaver Lake passes through Eastwood Power Station Tunnel, the same conduit that draws water from Balsam Meadow Forebay.

Figure CAWG 5-56 presents temperature profiles taken in 2001. Water in the forebay warmed steadily throughout the summer, then cooled in September and October. Water temperatures were cool in early summer, warming in July and August, with a maximum recorded surface temperature of 20.8ºC and a maximum recorded bottom temperature of 18.2ºC in the warmest month of August. In this relatively small impoundment, there was only a small thermal gradient (3ºC or less between surface and bottom layers), which occurred in May through July.

5.4.6.4 Eastwood Power Station Tailrace

Eastwood Power Station tailrace discharges water into Shaver Lake just south of the confluence of Shaver Lake with North Fork Stevenson Creek. Water temperatures in the Eastwood Power Station tailrace included temperatures recorded when the unit was in generation, in pumpback, and offline. Temperature data therefore included information representative of discharge from Balsam Meadow Forebay, as well as surface waters of Shaver Lake. Temperatures recorded in the tailrace included average monthly temperatures of 12.0 to 21.6ºC, but monthly maximum temperatures did not exceed 23.7ºC (Table CAWG 5-310; Figure CAWG 5-54). In the Eastwood Power Station tailrace, observed water temperatures exceeded a daily average of 19ºC for 54 days in 2000 and for 92 days in 2001 (Table CAWG 5-311). There was no day when a daily maximum of 24ºC was exceeded in either 2000 or 2001.

5.4.6.5 Stevenson Creek Downstream of Shaver Lake

This reach of Stevenson Creek includes Stevenson Creek from Shaver Lake Dam to its confluence with the San Joaquin River at RM 13.6. Three water temperature recorders were deployed in Stevenson Creek (Map CAWG 5-8). Temperature monitoring data and comparisons with evaluation criteria are presented in Tables CAWG 5-316 through 5-329 and in Figures CAWG 5-57 through 5-59. The number of days with daily

temperatures exceeding each of a range of temperatures for Stevenson Creek are presented in Appendix H Tables H-A78, H-B78, H-A79 and H-B79.

Daily mean temperatures in Stevenson Creek were graphed by river mile to show the trends in water temperature in a downstream direction (Figures CAWG 5-57 and 5-58). Water temperatures in Stevenson Creek at the release point of Shaver Lake Dam (Stevenson Creek RM 4.25) were cold, with average monthly temperatures ranging from 6.7 to 15.1ºC and maximum monthly temperatures that did not exceed 15.7ºC (Table CAWG 5-316). These temperatures were colder than upstream of Shaver Lake through most of the summer, but by August or September water temperatures below the dam were warmer. When Shaver Lake is stratified during the summer, cold water is released to the stream, but by the end of the summer when the lake begins to mix and lose its thermal stratification, the water released reflects the mixed water temperature of the lake.

The water warmed in Stevenson Creek between the dam and the railroad grade (Stevenson Creek RM 2.4) and from there to upstream of the confluence with the San Joaquin River (Stevenson Creek RM 0.3) over the summer months, but cooled in October. The only location where average daily water temperatures exceeded a daily average of 19ºC was upstream of the San Joaquin River, and there it only occurred for three days in 2000 and six days in 2001 (Table CAWG 5-317).

Water temperatures in Stevenson Creek at the release point of Shaver Lake Dam were cool, as identified above (Table CAWG 5-316; Figure CAWG 5-59). Observed water temperatures did not exceed a daily average of 19ºC or a daily maximum of 24ºC in 2000 or 2001 (Table CAWG 5-317 and Appendix H Tables H-A78 and H-B78). Water temperatures in Stevenson Creek were compared to both those in its tributary North Fork Stevenson Creek upstream of Shaver Lake and Stevenson Creek upstream of Shaver Lake for evaluating warming. The comparison with North Fork Stevenson Creek may be of limited value, since North Fork Stevenson Creek is strongly influenced by instream releases from Tunnel 7. Mean daily water temperature differences exceeded 5ºF between North Fork Stevenson Creek to downstream of Shaver Lake Dam for 18 days in 2000 and 21 days in 2001, mostly in October (Table CAWG 5-318). During the summer months, cool water from the hypolimnion of the stratified lake is released below the dam, but in the fall mixed lake water containing stored heat from the epilimnion is released. Temperature differences also exceeded 5°F between Stevenson Creek upstream of Shaver Lake to downstream of Shaver Lake Dam for most days recorded in September and October of 2000 and 2001 (Table CAWG 5-319). The number of days differences in daily maximum water temperatures exceeded 5°F are presented in Tables CAWG 5-320 and 5-321.

Water temperatures in Stevenson Creek at the railroad grade, the next temperature recorder downstream at Stevenson Creek RM 2.4, which is 1.8 miles from the release point of the dam were cool. Average monthly water temperatures were 14.8ºC or less and monthly maximum water temperatures did not exceed 18.7ºC (Table CAWG 5-316; Figure CAWG 5-59). There was no day when an observed water temperature exceeded a daily average of 17ºC or a daily maximum of 20ºC in either 2000 or 2001 at

this site (Table CAWG 5-317 and Appendix H Tables H-A79 and H-B79). Water temperatures at the railroad grade were warmer than at the release point downstream of the dam in May through August, but by September and October temperatures were cooler due to cooling meteorological conditions in the fall. Mean daily water temperature differences exceeded 5°F between North Fork Stevenson Creek upstream of Shaver Lake to Stevenson Creek at the railroad grade for 15 days in May of 2001, but not in other months in the summer or fall of 2000 or 2001 (Table CAWG 5-322). Temperature differences exceeded 5°F in Stevenson Creek upstream of Shaver Lake to the railroad grade for about half the days in September and all days in October of 2000 and 2001 (Table CAWG 5-323). The number of days differences in daily maximum water temperatures exceeded 5°F are presented in Tables CAWG 5-5-324 and 5-325.

A temperature recorder was deployed in Stevenson Creek upstream of the confluence with the San Joaquin River at Stevenson Creek RM 0.3, which is approximately 3.95 miles downstream of the release point of the dam. Average monthly stream temperatures ranged from 10.9°C to 16.9°C (Table CAWG 5-316). Mean daily water temperature differences exceeded 5°F between North Fork Stevenson Creek upstream of Shaver Lake to Stevenson Creek upstream of the confluence with the San Joaquin River for only one day in 2000 and for 34 days in 2001 (Table CAWG 5-326). Water temperature differences did not exceeded 5°F in Stevenson Creek between upstream of Shaver Lake to upstream of the confluence with the San Joaquin River (Table CAWG 5-327). The number of days differences in daily maximum water temperatures exceeded 5°F are presented in Tables CAWG 5-328 and 5-329.

Observed water temperatures exceeded a daily average of 19ºC for three days in August of 2000 and six days in July of 2001 (Table CAWG 5-317 and Appendix H Table H-A75). There were no days when observed water temperatures exceeded a daily maximum of 24ºC in either 2000 or 2001 (Appendix H Table H-B75). Water temperatures were warmer in Stevenson Creek upstream of the confluence of the San Joaquin River than at the release point downstream of the dam for most months (Figure CAWG 5-59). Water temperatures decreased during October in both 2000 and 2001, reflecting cooling meteorological conditions.

5.5 OVERWINTER TEMPERATURES

To address stakeholder concern about over-winter conditions, water temperatures were recorded in pools in Bear, Mono, and Camp 61 Creeks below the diversions.

5.5.1 BEAR CREEK

A recorder in Bear Creek downstream of the diversion monitored water temperatures in a pool from the fall of 2001 through spring of 2002. Water temperatures were measured at the bottom of the pool above the substrate. Monthly average water temperatures ranged from 0.2ºC to 3.8ºC (Table CAWG 5-330). Daily minimum temperatures never were less than 0.1°C. Water temperatures never reached 0ºC indicating that the pool did not freeze to the bottom. The creek may have provided potential habitat for aquatic life over the winter.

5.5.2 MONO CREEK

A recorder was installed in Mono Creek downstream of the diversion and used to monitor water temperatures in a pool from fall of 2001 through spring of 2002. Winter water temperatures were warmer in Mono Creek than in Bear Creek. Monthly average water temperatures ranged from 2.9ºC to 7.2ºC (Table CAWG 5-331). Water temperature never reached 0ºC, and therefore this location in the creek did not freeze. The creek provided potential habitat for aquatic life over the winter.

5.5.3 CAMP 61 CREEK

Water temperatures were recorded in a pool approximately 2.0 ft deep in Camp 61 Creek, immediately downstream of Portal Forebay Dam from fall 2001 through spring 2002 (Table CAWG 5-332). The temperature recorder was located in a small pool in Camp 61 Creek downstream from the seep from Portal Forebay. The streamflow becomes dry, or subsurface at some point between the monitored pool and the confluence of Adit No. 2 Creek. Due to the limited flow reaching this pool, it represents a worst case scenario for over-winter temperatures in this creek. Monthly average water temperatures ranged from 0.8°C to 8.0°C. The water temperature never reached freezing. Therefore, despite limited flow, the pool never froze or reached 0°C, at which temperature concern for brown trout mortality would occur (Raleigh et al., 1986). The creek may have continued to provide potential habitat for aquatic life over the winter.

6.0
SUMMARY OF COMPARISONS WITH EVALUATION CRITERIA

In the results reported for each of the Project bypass reaches and other study streams, comparisons were made with preliminary evaluation criteria. These comparisons addressed, at a preliminary screening level, whether water temperatures in each of those reaches met conditions related to water quality objectives or affected suitability of habitat and thereby beneficial uses for aquatic life. The criteria used specifically address two types of questions:

1. Does water temperature increase more than 5°F in a bypass reach when compared with upstream monitoring stations, when the Project is in operation in that reach?

2. Are water temperatures too warm for coldwater fish (trout); or outside the preference range of hardhead, in those reaches in which they occur, when the Project is in operation in that reach?

As discussed in Methods, warming of more than 5°F may occur absent Project operations, specifically diversion of flow, while the water quality objective is related to whether an increase of over 5°F above that due to natural warming has occurred. We selected an increase of more than 5°F, regardless of source, between a monitoring station within a bypass reach and an upstream location unaffected by Project operations (or other appropriate reference) as a screening level criterion. The evaluation was made for the results of each individual day of monitoring. If the Project is in operation and warming is less than the criterion, we classify the reach as meeting the criterion. If the Project is not in operation (i.e., not diverting), then the result is not related to Project operations. If the Project is operating and an increase of more than 5°F is found, then the reach is designated for further analysis. The portion of the increased temperature due to natural warming would need to be differentiated from that due to Project operations to identify whether Project operations are responsible for more than 5°F warming above natural warming. For example, if a small tributary diversion was turned out in July and all flow released to the bypass reach; water temperature increases of more than 5°F that occurred in August would not be attributed to Project operations.

For the second set of criteria, water temperatures for each location were evaluated for each day to determine if the preliminary temperature evaluation criteria selected for coldwater fish were exceeded; or in the case of hardhead, whether the temperatures fell outside of the preference range. For these evaluation criteria, a day in which the criteria were not exceeded in a diverted reach, we classify the temperatures as having met the criteria for that day. For a day in which the Project was not in operation, regardless of the outcome of the comparison with the criteria, that day is not included in the total number of days for which the criteria may not have been met. For any day in which the reach was affected by Project operations, a criterion exceedance was counted. Using the same example presented above for 5°F warming, if water temperatures in June did not exceed any of the preliminary temperature evaluation criteria for target aquatic

species, while the diversion was operating, there would not be any day counted towards exceeding the criteria. If in August, after diversion ceased and all natural flow was present in the bypass reach, water temperatures exceeded one of the criteria, it would not be attributed to Project operations. Had the criteria been exceeded when the diversion was operating, each operating day the temperature exceeded one of the criteria would have been counted.

Tables CAWG 5-333 through 5-346 summarize the results by drainage and Project reach for the evaluation of preliminary criteria. The tables present the number of days in which a preliminary criterion was exceeded by location, when the reach was affected by Project operations. The inclusion of days is based on the evaluation rationale explained above.

Temperature monitoring locations are listed in the first column. The number of days monitored are listed for each monitoring station. The number of days in which observed daily mean temperatures exceeded 19°C or daily maximum temperatures exceeded 24°C when a diversion was in operation are presented for each monitoring station.

The remaining columns present the number of days that daily mean or daily maximum temperature differences between upstream reference locations and bypass reach sites were greater than 5°F, when the diversion was in operation. Of those days, the number in which daily temperature means and/or maxima also were greater than temperature evaluation criteria for target aquatic species are presented as well (i.e., daily mean of 19°C and daily maximum of 24°C for trout). The number of days temperatures were outside of the hardhead preference range are presented for sites in the Stevenson Reach of San Joaquin River, the only reach in which they occurred.

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TABLES

Table CAWG 5-1. Big Creek Study Streams Monitored During 2000-2001 - Number of Units Installed by Location.

Location and Number of Temperature Recorders	Above Diversion	Below Diversion	Tributaries Entering Bypass Reach
South Fork San Joaquin River			
Trib. To Florence Lake	0	0	1[1]
Tombstone Creek	0	1	0
South Slide Creek	0	1	0
North Slide Creek	0	1	0
Hooper Creek	2	2	0
Crater Creek	1	2[2]	0
Bear Creek	2	2	0
Chinquapin Creek	1	0	0
Camp 62 Creek	1	1	0
Bolsillo Creek	1	1	0
Camp 61 Creek	2	2	0
Adit #2 Seepage	0	2	0
Mono Creek	2	2	0
Warm Creek	0	1	0
SF San Joaquin River	1	15[3]	5[4]
San Joaquin River Mammoth Reach			
Trib. to Mammoth Pool	0	0	5[5]
Rock Creek	1	1	0
Ross Creek	1	1	0
San Joaquin River (Mammoth Pool Dam to PH)	1	4	3[6]

[1] Boulder Creek
[2] In diversion channel near Florence Lake
[3] SFSJR unit upstream of Warm Creek not installed until 2001
[4] Rattlesnake Creek, Four Forks Creek, Hoffman Creek, Rube Creek, San Joaquin River upstream. of SFSJR confluence
[5] Jackass Creek, Mill Creek, Kaiser Creek, Chiquito Creek, Daulton Creek
[6] Shakeflat, Horsethief Creek, Fish Creek

Table CAWG 5-1. Big Creek Study Streams Monitored During 2000-2001 - Number of Units Installed by Location (cont).

Location and Number of Temperature Recorders	Above Diversion	Below Diversion	Tributaries Entering Bypass Reach
Big Creek Reach			
Rancheria Creek	0	1[7]	0
Trib. To Huntington Lake	0	0	4[8]
Big Creek (Dam 1 to PH No. 1)	1	3	0
Big Creek (Dam 4 to PH No. 2)	2	3	4[9]
Big Creek (Dam 5 to PH No. 8)	3	2	0
Pitman Creek	1	1	0
Balsam Creek (Dam to Low. Div. Forebay)	2	1	0
Balsam Creek (Low. Div. Forebay to Big Creek)	1	1	0
Ely Creek	1	1	0
Stevenson Creek/SJR Stevenson Reach			
NF Stevenson Creek	0	2	0
Stevenson Creek (Shaver Lake to San Joaquin River)	1	3	0
SJR Stevenson Reach (Dam 6 to PH No. 3)	1	2[10]	0
Tribs. to Redinger Lake	0	2	1[11]
Over Winter Temperature Locations			
Bear Creek	1		
Mono Creek	1		
Camp 61 Creek	1		
Amphibian Monitoring Locations			
Jose Creek[12]	1		
Willow Creek[13]	1		

[7] Rancheria Creek is a Tributary to Huntington Lake
[8] Home Camp Creek, Line Creek, Potter Creek, Coon Creek
[9] Balsam Creek, Ely Creek, Sheepthief Creek, Ordinance Creek
[10] SJR downstream of Dam 6 not installed until 2001
[11] Saginaw Creek
[12] Scheduled to be reported in CAWG-6 Amphibian Report
[13] Scheduled to be reported in CAWG-6 Amphibian Report

Table CAWG 5-2. Reservoirs and Impoundment's with Number of Locations Monitored during 2000-2001.

	Profile Locations	Tributaries
Large Dams with Storage		
Florence Lake Dam & Reservoir	2	2
Vermilion Valley Dam & Reservoir (Lake T.A. Edison)[1]	2	2
Huntington Lake Dams 1, 2, 3, 3a, & Reservoir	3	6
Shaver Lake Dam & Reservoir	2	1
Mammoth Pool Dam & Reservoir	3	6
Dam 7 & Redinger Lake Reservoir	R	2
Moderate Diversion Dams – Small Impoundment		
Portal Dam & Forebay[2]	1	1
Balsam Dam & Forebay	1	3
Big Creek Powerhouse 2 (Dam 4) Forebay	R	1
Big Creek Powerhouse 8 (Dam 5) Forebay	R	
San Joaquin River Big Creek Powerhouse 3 (Dam 6) Forebay	1,R	2

R = Temperature recorder

[1] Data presented in Vermilion Valley Hydroelectric Project (FERC Project No. 2086) Final Application for New License for Minor Project-Existing Dam

[2] Data presented in Portal Hydroelectric Project (FERC Project No. 2174) Draft Application for New License

Table CAWG 5-3. Powerhouse Tailraces Monitored for Water Temperatures during 2000-2001

Powerhouse	Years Monitored
Portal Powerhouse	2000,2001
Big Creek Powerhouse 1	2000,2001
Big Creek Powerhouse 2	2000,2001
Big Creek Powerhouse 2A	2000,2001
Big Creek Powerhouse 8	2000,2001
Eastwood Powerhouse	2000,2001
Mammoth Pool Powerhouse	2000,2001
Big Creek Powerhouse 3	2000,2001

Table CAWG 5-4. Meteorological Data Collected by Location During 2000-2001.

Location	Air Temperature	Relative Humidity	Wind Speed	Solar Radiation
Lake Edison[1]	√	√	√	√
Florence Lake	√	√	√	√
Mammoth Pool	√	√	√	√
Huntington Lake	√	√	√	√
Big Creek Powerhouse 3[2]	√	√	√	√
South Fork San Joaquin River upstream of Rattlesnake Creek	√	√		
Eastwood Tailrace	√	√		
Stevenson Creek at RR Grade[3]	√	√		
Upstream of Big Creek Powerhouse 2	√	√		
Upstream of Mammoth Pool	√	√		
Mammoth Pool Powerhouse	√	√		

[1] Only partial record, instrument damaged during windstorm 8/2/2000.
[2] Additional data collected from 6/28/2002 to 10/30/2002.
[3] Only partial record, instrument stolen 7/20/2000.

Table CAWG 5-5. Water Year Classifications for 2000 through 2002[1].

Water Year	Classification
2000	Above Normal
2001	Dry
2002	Dry

1- Source: California Department of Water Resources. 2002. DWR Water Supply Website: http://watersupplyconditions.water.ca.gov/summary.htm

Table CAWG 5-6. Air Temperatures Near the South Fork San Joaquin River Basin, 2000-2001.

	Florence Lake Station			Lake Edison Station			Rattlesnake Creek Station		
Elevation	**7330 ft**			**7650 ft**			**6100 ft**		
Month	**Mean [a] (°C)**	**Maximum [b] (°C)**	**Minimum [c] (°C)**	**Mean [a] (°C)**	**Maximum [b] (°C)**	**Minimum [c] (°C)**	**Mean [a] (°C)**	**Maximum [b] (°C)**	**Minimum [c] (°C)**
May 2000	-	-	-	-	-	-	-	-	-
June 2000	17.0 [23]	30.5	2.1	15.2 [3]	26.1	6.2	17.9 [4]	27.1	6.6
July 2000	17.8	30.5	5.9	10.2 [5]	22.6	-0.8	16.9	32.3	1.2
August 2000	18.0	27.9	8.8	-	-	-	16.8	30.3	2.5
September 2000	14.9	28.5	3.0	-	-	-	12.6 [25]	30.3	-1.5
October 2000	15.2 [8]	24.9	9.5	-	-	-	-	-	-
May 2001	-	-	-	14.5 [12]	27.5	2.0	-	-	-
June 2001	16.3	26.3	5.2	13.8	28.3	-0.8	-	-	-
July 2001	16.9	28.1	7.7	14.5	29.9	1.7	15.9 [19]	29.5	3.3
August 2001	19.6	28.9	8.5	16.6	30.3	1.0	18.0	31.9	2.9
September 2001	16.3	25.5	6.9	12.9	25.9	-0.5	14.0	27.5	1.2
October 2001	13.4 [12]	25.7	7.7	10.2 [10]	24.4	1.5	9.9 [24]	27.5	0.8

[a] Monthly averages are calculated by averaging daily means
[b] Maximum temperature observed during each month
[c] Minimum temperature observed during each month
Note: 17.0 [23] if monthly average not based on full month, days averaged (e.g. 23-day average) is shown as superscript

Table CAWG 5-7. Air Temperatures Near the San Joaquin River Basin, 2000-2001.

	Upstream of Mammoth Pool Station			Mammoth Pool Station			Mammoth Pool Powerhouse Station			Powerhouse 3 Station		
Elevation	**3430 ft**			**3360 ft**			**2235 ft**			**1410 ft**		
Month	**Mean[a]**	**Maximum[b]**	**Minimum[c]**	**Mean[a]**	**Maximum[b]**	**Minimum[c]**	**Mean[a]**	**Maximum[b]**	**Minimum[c]**	**Mean[a]**	**Maximum[b]**	**Minimum[c]**
	(°C)	**(°C)**	**(°C)**	**(°C)**	**(°C)**	**(°C)**	**(°C)**	**(°C)**	**(°C)**	**(°C)**	**(°C)**	**(°C)**
May 2000	-	-	-	-	-	-	-	-	-	-	-	-
June 2000	-	-	-	23.8 [15]	34.3	13.9	25.4 [10]	34.9	16.8	29.8 [10]	39.8	20.8
July 2000	23.1 [12]	36.1	13.3	22.7	37.6	9.8	20.5 [5]	30.3	11.8	26.9	41.3	14.5
August 2000	22.5	35.7	12.2	23.7	39.4	10.7	24.3 [21]	35.3	14.1	28.1	43.5	14.5
September 2000	18.1	34.4	7.8	19.0	37.0	6.5	21.0	36.6	9.0	18.5 [4]	26.7	13.2
October 2000	12.7 [28]	31.1	2.9	13.5 [27]	34.4	2.7	14.7	33.6	1.6	-	-	-
May 2001	-	-	-	20.0	36.0	5.8	20.4	36.1	5.8	24.5	38.8	11.0
June 2001	20.1 [22]	32.3	9.4	21.3 [19]	36.0	8.0	22.9	36.1	10.6	25.7 [16]	37.9	14.8
July 2001	22.0	35.7	12.2	23.7	40.9	12.1	25.2	40.1	14.1	28.6	42.4	18.2
August 2001	23.4	35.3	11.8	24.8	39.2	11.3	25.9	37.9	14.9	29.2	40.0	17.9
September 2001	19.8	31.9	9.4	20.9	35.9	8.9	23.1	36.1	10.6	26.3	38.7	15.3
October 2001	16.5 [16]	32.3	6.2	17.5 [16]	36.4	6.0	18.6	35.7	7.0	21.7	37.4	9.5

[a] Monthly averages are calculated by averaging daily means
[b] Maximum temperature observed during each month
[c] Minimum temperature observed during each month
Note: 17.0 [23] if monthly average not based on full month, days averaged (e.g. 23-day average) is shown as superscript

Table CAWG 5-8. Air Temperatures at the Powerhouse 3 Station, 2002.

	Powerhouse 3 Station		
Elevation	**1410 ft**		
Month	**Mean [a]**	**Maximum [b]**	**Minimum [c]**
	(°C)	**(°C)**	**(°C)**
May 2002	-	-	-
June 2002	26.9^{3}	37.4	18.4
July 2002	28.1	42.2	17.5
August 2002	28.0	40.1	14.5
September 2002	23.5	40.0	9.5
October 2002	21.5	36.8	8.6

[a] Monthly averages are calculated by averaging daily means
[b] Maximum temperature observed during each month
[c] Minimum temperature observed during each month
Note: 17.0^{23} if monthly average not based on full month, days averaged (e.g. 23-day average) is shown as superscript

Table CAWG 5-9. Air Temperatures Near the Big Creek Drainage 2000-2001.

	Huntington Lake Station			Powerhouse 2 Station		
Elevation	**6970 ft**			**3040 ft**		
Month	**Mean [a] (°C)**	**Maximum [b] (°C)**	**Minimum [c] (°C)**	**Mean [a] (°C)**	**Maximum [b] (°C)**	**Minimum [c] (°C)**
May 2000	-	-	-	-	-	-
June 2000	16.9 [8]	24.0	9.8	22.8 [17]	35.3	13.3
July 2000	15.3	27.1	4.5	20.3 [19]	31.9	9.4
August 2000	17.1	29.8	7.6	22.3 [21]	34.0	12.2
September 2000	13.2	27.5	2.8	18.8	34.4	7.8
October 2000	14.3 [9]	24.8	9.0	13.5 [26]	31.5	8.5
May 2001	14.4 [14]	25.6	4.9	18.9	34.0	5.0
June 2001	13.8 [16]	25.6	4.2	20.9	34.0	8.6
July 2001	15.7	29.7	6.9	22.7	37.9	12.2
August 2001	17.8	28.5	7.1	23.9	36.1	12.6
September 2001	15.1	25.5	6.2	20.7	34.0	10.6
October 2001	12.4 [14]	26.2	7.3	16.1	33.6	10.5

[a] Monthly averages are calculated by averaging daily means
[b] Maximum temperature observed during each month
[c] Minimum temperature observed during each month
Note: 17.0 [23] if monthly average not based on full month, days averaged (e.g. 23-day average) is shown as superscript

Table CAWG 5-10. Air Temperatures Near the Stevenson Creek Drainage, 2000-2001.

	Eastwood Tailrace Station			Stevenson Creek RR Grade Station		
Elevation	**5370 ft**			**4270 ft**		
Month	**Mean [a] (°C)**	**Maximum [b] (°C)**	**Minimum [c] (°C)**	**Mean [a] (°C)**	**Maximum [b] (°C)**	**Minimum [c] (°C)**
May 2000	-	-	-	-	-	-
June 2000	17.3 [11]	27.1	7.0	19.7 [17]	31.1	11.4
July 2000	15.3	29.1	2.5	17.2 [19]	28.7	8.6
August 2000	16.4	30.3	3.7	-	-	-
September 2000	12.8	28.3	-0.2	-	-	-
October 2000	8.6 [25]	26.3	-1.1	-	-	-
May 2001	13.3	27.5	-2.0	17.0	31.1	0.7
June 2001	14.5	27.1	1.6	18.7 [27]	31.9	7.8
July 2001	16.4	31.1	5.4	20.4	36.1	11.0
August 2001	17.6	30.3	5.0	21.8	33.6	11.4
September 2001	14.8	27.1	3.3	18.7	31.9	10.6
October 2001	11.4 [26]	27.9	0.7	14.7 [30]	30.7	6.2

[a] Monthly averages are calculated by averaging daily means
[b] Maximum temperature observed during each month
[c] Minimum temperature observed during each month
Note: 17.0 [23] if monthly average not based on full month, days averaged (e.g. 23-day average) is shown as superscript

Table CAWG 5-11. Monthly Average Air Temperatures at North Fork Ranger Station for 2000-2002 and Historical Percent Exceedance.

Month	Avg. Temperature (°C)	Exceedance (percent)
2000		
May	16.9	21
June	22.3	8
July	23.0	78
August	25.1	17
September	20.3	57
2001		
May	20.0	2
June	21.3	17
July	23.9	54
August	24.9	19
September	21.8	27
2002		
May	14.8	70
June	21.3	19
July	25.6	13
August	23.2	70

Table CAWG 5-12. South Fork San Joaquin River Upstream of Florence Lake and Boulder Creek - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	South Fork San Joaquin River Upstream of Florence Lake				Boulder Creek			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	8.7	14.8	2.3	23	10.3	14.6	2.9	23
July 2000	10.5	14.7	7.4	6	12.0	22.3	4.7	31
August 2000	14.2	18.5	10.3	31	13.2	17.4	8.9	21
September 2000	11.8	16.1	7.1	30	9.8	13.5	6.9	8
October 2000	7.4	13.4	2.6	24	6.9	13.4	3.0	24
May 2001	7.4	12.9	3.3	12	8.0	13.4	3.3	12
June 2001	11.8	17.6	5.0	30	11.4	17.9	6.6	30
July 2001	13.8	18.1	10.1	17	13.2	18.7	8.7	31
August 2001	15.6	19.5	12.1	4	13.8	18.1	9.3	31
September 2001	12.6	15.5	9.6	13	11.1	15.6	7.2	30
October 2001	-	-	-	0	9.0	12.4	5.3	12

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-13. South Fork San Joaquin Upstream of Florence Lake and Boulder Creek – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	South Fork San Joaquin River Upstream of Florence Lake			Boulder Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	0	0	0
June 2000	0	0	23	0	0	23
July 2000	0	0	6	0	0	31
August 2000	0	0	31	0	0	21
September 2000	0	0	30	0	0	8
October 2000	0	0	24	0	0	24
May 2001	0	0	12	0	0	12
June 2001	0	0	30	0	0	30
July 2001	0	0	17	0	0	31
August 2001	0	0	4	0	0	31
September 2001	0	0	13	0	0	30
October 2001	-	-	0	0	0	12

Table CAWG 5-14. South Fork San Joaquin River Florence Lake to Upstream of San Joaquin River-Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	South Fork San Joaquin River Downstream of Florence Lake				South Fork San Joaquin River Downstream of Jackass Meadow			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	7.2	8.1	6.2	23	11.3	18.9	5.6	23
July 2000	9.0	10.3	7.6	31	13.0	17.1	8.1	31
August 2000	11.4	13.1	10.0	31	13.3	17.3	9.5	31
September 2000	13.6	15.4	12.6	17	14.2	17.9	10.4	30
October 2000	-	-		0	12.5	16.8	8.4	23
May 2001	-	-	-	0	-	-	-	0
June 2001	8.2	9.3	7.2	23	13.2	16.8	9.5	23
July 2001	10.0	11.2	8.7	24	13.2	17.1	9.5	31
August 2001	11.9	13.2	10.6	31	14.6	17.4	11.0	31
September 2001	14.5	16.8	12.6	30	14.7	17.3	11.5	30
October 2001	13.9	15.9	11.7	22	12.7	16.3	9.5	22

Month	South Fork San Joaquin River Upstream of Hooper Creek				South Fork San Joaquin River Upstream of Crater Creek			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	12.9	18.1	8.2	17	13.4	18.7	9.6	18
July 2000	13.8	18.3	9.2	31	14.4	19.2	9.9	31
August 2000	13.9	17.0	10.4	31	14.3	18.7	11.3	31
September 2000	13.7	16.7	10.1	30	13.5	17.6	10.5	30
October 2000	11.5	15.2	7.2	23	10.0	15.7	4.9	31
May 2001	-	-	-	0	11.7	18.5	4.9	31
June 2001	13.9	19.4	10.4	23	14.3	20.2	9.5	30
July 2001	14.0	18.8	10.3	31	14.6	20.5	10.4	31
August 2001	15.1	18.9	11.7	31	15.7	20.3	11.5	31
September 2001	14.1	17.3	11.5	30	14.0	18.4	11.2	30
October 2001	10.9	16.4	5.0	22	10.9	15.8	7.2	22

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-14. South Fork San Joaquin River Florence Lake to Upstream of San Joaquin River-Monthly Mean, Maximum[1], and Minimum[2] Temperatures (cont).

Month	South Fork San Joaquin River Upstream of Bear Creek				South Fork San Joaquin River Upstream of Mono Hot Springs			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	11.3	17.9	6.2	29
July 2000	15.7	19.7	11.5	14	16.0	19.8	10.8	31
August 2000	14.8	19.2	11.4	31	15.7	20.1	11.9	31
September 2000	13.5	17.5	10.0	30	13.6	17.5	9.9	30
October 2000	9.8	15.3	4.7	31	9.2	15.0	3.5	31
May 2001	11.6	19.3	3.6	31	-	-	-	0
June 2001	15.1	20.4	9.5	30	17.2	20.3	14.0	3
July 2001	15.4	20.4	10.6	31	16.5	20.8	11.8	31
August 2001	16.3	20.4	11.3	31	17.3	20.8	12.9	31
September 2001	14.1	18.2	10.7	30	14.5	18.6	11.3	30
October 2001	11.7	15.5	8.1	13	10.5	15.4	6.8	27

Month	South Fork San Joaquin River Upstream of Camp 62 Creek				South Fork San Joaquin River Upstream of Bolsillo Creek			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	11.5	18.2	6.2	29	11.2	17.9	5.7	29
July 2000	16.5	20.1	11.6	31	16.6	20.3	11.6	31
August 2000	16.2	20.5	12.2	31	16.4	20.3	12.6	31
September 2000	13.9	17.9	10.2	30	14.0	17.4	10.4	30
October 2000	9.3	15.3	3.6	31	9.3	14.9	3.5	31
May 2001	15.0	19.6	10.7	10	15.1	19.4	11.0	10
June 2001	16.9	21.5	12.3	30	17.0	21.6	12.2	30
July 2001	17.2	21.5	12.6	31	17.4	21.8	12.9	31
August 2001	17.9	21.5	13.5	31	18.2	21.6	13.5	31
September 2001	15.0	19.2	11.8	30	15.1	19.2	11.6	30
October 2001	11.4	16.5	7.6	23	11.4	15.8	7.6	23

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-14. South Fork San Joaquin River Florence Lake to Upstream of San Joaquin River-Monthly Mean, Maximum[1], and Minimum[2] Temperatures (cont).

Month	South Fork San Joaquin River Upstream of Camp 61 Creek				South Fork San Joaquin River Upstream of Mono Creek			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	13.9	18.6	10.3	4	14.2	19.4	10.4	4
July 2000	17.4	21.8	12.6	31	17.6	22.2	12.6	31
August 2000	17.1	21.8	13.4	31	17.2	22.7	13.2	31
September 2000	14.3	18.6	10.7	30	14.3	19.1	10.6	30
October 2000	9.4	15.7	3.7	31	9.3	16.2	3.4	31
May 2001	16.0	21.1	12.5	9	16.3	21.9	12.6	9
June 2001	17.7	23.6	12.5	30	17.8	23.4	12.4	30
July 2001	18.4	23.6	13.9	25	18.3	23.9	13.5	31
August 2001	18.8	23.6	13.6	31	18.8	23.4	13.2	31
September 2001	15.5	20.8	11.6	30	15.4	20.9	11.1	30
October 2001	11.4	17.6	7.6	23	11.3	16.5	6.9	23

Month	South Fork San Joaquin River Upstream of Warm Creek				South Fork San Joaquin River Upstream of Rattlesnake Creek			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	14.6	18.7	10.7	4
July 2000	-	-	-	0	17.0	20.0	13.0	31
August 2000	-	-	-	0	17.3	19.8	13.9	13
September 2000	-	-	-	0	12.4	13.8	10.6	4
October 2000	-	-	-	0	9.1	13.5	4.5	31
May 2001	-	-	-	0	12.5	16.7	6.9	31
June 2001	17.2	21.0	12.9	18	16.6	20.9	13.1	30
July 2001	17.6	21.8	13.5	31	18.0	22.0	14.3	31
August 2001	18.1	21.5	13.2	31	18.5	21.7	14.0	31
September 2001	15.2	19.0	11.3	30	15.3	19.2	11.7	30
October 2001	11.1	15.2	7.3	23	11.1	15.6	7.5	24

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-14. South Fork San Joaquin River Florence Lake to Upstream of San Joaquin River-Monthly Mean, Maximum[1], and Minimum[2] Temperatures (cont).

Month	South Fork San Joaquin River Upstream of Hoffman Creek				South Fork San Joaquin River Upstream of San Joaquin River Confluence			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	-	-	-	0
July 2000	-	-	-	0	-	-	-	0
August 2000	16.8	20.2	14.3	24	18.4	20.5	16.2	22
September 2000	13.8	17.1	11.3	30	15.4	17.9	13.2	30
October 2000	9.2	14.1	4.7	31	10.5	15.1	6.2	31
May 2001	12.2	18.1	6.4	31	13.7	18.9	7.6	31
June 2001	16.3	20.8	12.4	30	17.7	21.5	14.4	30
July 2001	17.7	21.5	15.1	31	19.6	22.8	17.4	31
August 2001	18.3	21.7	14.4	31	19.9	23.1	16.8	31
September 2001	15.1	19.0	12.0	30	16.7	20.3	13.8	30
October 2001	10.8	14.7	7.3	25	12.2	16.5	9.1	31

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-15. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Downstream of Florence Lake Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	23	30	8%
July 2000	0	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	4	0	0	0	0	0	17	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	10	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	7	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-16. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Downstream of Florence Lake Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	23	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	24	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	18	0	0	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-17. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Downstream of Florence Lake Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	23	30	8%
July 2000	0	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	17	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	10	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	1	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-18. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Downstream of Florence Lake Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	23	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	24	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	7	0	0	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-19. South Fork San Joaquin River Florence Lake to Upstream of San Joaquin River – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	South Fork San Joaquin River Downstream of Florence Lake			South Fork San Joaquin River Downstream of Jackass Meadow		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	0	0
June 2000	0	0	23	0	0	23
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	17	0	0	30
October 2000	0	0	0	0	0	23
May 2001	-	0	0	0	-	0
June 2001	0	0	23	0	0	23
July 2001	0	0	24	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	22	0	0	22

Month	South Fork San Joaquin River Upstream of Hooper Creek			South Fork San Joaquin River Upstream of Crater Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	17	0	0	18
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	23	0	0	31
May 2001	-	-	0	0	0	31
June 2001	0	0	23	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	22	0	0	22

Table CAWG 5-19. South Fork San Joaquin River Florence Lake to Upstream of San Joaquin River - Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C (cont).

Month	South Fork San Joaquin River Upstream of Bear Creek			South Fork San Joaquin River Upstream of Mono Hot Springs		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	-	-	0	0	0	29
July 2000	0	0	14	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	31	0	0	31
May 2001	0	0	31	-	-	0
June 2001	0	0	30	0	0	3
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	13	0	0	27

Month	South Fork San Joaquin River Upstream of Camp 62 Creek			South Fork San Joaquin River Upstream of Bolsillo Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	29	0	0	29
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	31	0	0	31
May 2001	0	0	10	0	0	10
June 2001	0	0	30	2	0	30
July 2001	1	0	31	2	0	31
August 2001	1	0	31	2	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	23	0	0	23

Table CAWG 5-19. South Fork San Joaquin River Florence Lake to Upstream of San Joaquin River - Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C (cont).

Month	South Fork San Joaquin River Upstream of Camp 61 Creek			South Fork San Joaquin River Upstream of Mono Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	0	0	0
June 2000	0	0	4	0	0	4
July 2000	2	0	31	2	0	31
August 2000	1	0	31	2	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	31	0	0	31
May 2001	0	0	9	0	0	9
June 2001	5	0	30	6	0	30
July 2001	7	0	25	8	0	31
August 2001	16	0	31	16	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	23	0	0	23

Month	South Fork San Joaquin River Upstream of Warm Creek			South Fork San Joaquin River Upstream of Rattlesnake Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	-	-	0	0	0	4
July 2000	-	-	0	0	0	31
August 2000	-	-	0	0	0	13
September 2000	-	-	0	0	0	4
October 2000	-	-	0	0	0	31
May 2001	-	-	0	0	0	31
June 2001	0	0	18	2	0	30
July 2001	2	0	31	3	0	31
August 2001	3	0	31	11	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	23	0	0	24

Table CAWG 5-19. South Fork San Joaquin River Florence Lake to Upstream of San Joaquin River - Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C (cont).

Month	South Fork San Joaquin River Upstream of Hoffman Creek			South Fork San Joaquin River Upstream of San Joaquin River Confluence 1		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	0	-	0	0
July 2000	0	0	0	-	-	0
August 2000	0	0	24	6	0	22
September 2000	0	0	30	0	0	30
October 2000	0	0	21	0	0	31
May 2001	0	0	31	0	0	31
June 2001	0	0	30	4	0	30
July 2001	0	0	31	26	0	31
August 2001	0	0	31	26	0	31
September 2001	0	0	30	1	0	30
October 2001	0	0	25	0	0	31

Table CAWG 5-20. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Downstream of Jackass Meadow, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	8	0	0	0	0	0	23	30	8%
July 2000	0	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	11	0	0	0	0	0	30	30	57%
October 2000	23	0	0	0	0	0	23	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	4	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-21. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Hooper Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	20	0	0	0	0	0	23	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	1	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-22. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Crater Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	15	0	0	0	0	0	18	30	8%
July 2000	2	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	17	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	13	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-23. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Bear Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	15	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	18	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-24. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Mono Hot Springs, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	11	0	0	0	0	0	23	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	10	0	0	0	0	0	24	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	3	0	0	0	0	0	3	30	17%
July 2001	2	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-25. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Camp 62 Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	12	0	0	0	0	0	23	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	30	30	57%
October 2000	12	0	0	0	0	0	24	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	12	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-26. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Bolsillo Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	12	0	0	0	0	0	23	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	3	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	30	30	57%
October 2000	11	0	0	0	0	0	24	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	30	0	2	0	0	0	30	30	17%
July 2001	14	0	0	0	0	0	17	31	54%
August 2001	2	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-27. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Camp 61 Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	14	0	1	0	0	0	31	31	17%
September 2000	8	0	0	0	0	0	30	30	57%
October 2000	11	0	0	0	0	0	24	31	82%
May 2001	9	0	0	0	0	0	9	31	2%
June 2001	30	0	5	0	0	0	30	30	17%
July 2001	11	0	2	0	0	0	11	31	54%
August 2001	4	0	2	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-28. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Mono Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	20	0	2	0	0	0	31	31	17%
September 2000	7	0	0	0	0	0	30	30	57%
October 2000	10	0	0	0	0	0	24	31	82%
May 2001	9	0	0	0	0	0	9	31	2%
June 2001	30	0	6	0	0	0	30	30	17%
July 2001	17	0	3	0	0	0	17	31	54%
August 2001	4	0	2	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-29. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Warm Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	18	0	0	0	0	0	18	30	17%
July 2001	15	0	0	0	0	0	17	31	54%
August 2001	2	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-30. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Rattlesnake Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	3	0	0	0	0	0	4	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	4	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	4	30	57%
October 2000	10	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	30	0	2	0	0	0	30	30	17%
July 2001	16	0	0	0	0	0	17	31	54%
August 2001	4	0	1	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-31. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Hoffman Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	12	0	0	0	0	0	24	31	17%
September 2000	4	0	0	0	0	0	30	30	57%
October 2000	6	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	17	0	1	0	0	0	17	31	54%
August 2001	2	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-32. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Downstream of Jackass Meadow, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	9	0	0	0	0	0	23	30	8%
July 2000	0	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	18	0	0	0	0	0	30	30	57%
October 2000	23	0	0	0	0	0	23	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	5	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-33. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Hooper Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	5	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	18	0	0	0	0	0	23	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	6	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	1	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-34. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Crater Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	12	0	0	0	0	0	18	30	8%
July 2000	3	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	20	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	1	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-35. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Bear Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	15	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	26	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-36. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Mono Hot Springs, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	11	0	0	0	0	0	23	30	8%
July 2000	5	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	13	0	0	0	0	0	24	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	2	0	0	0	0	0	3	30	17%
July 2001	3	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-37. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Camp 62 Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	11	0	0	0	0	0	23	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	2	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	30	30	57%
October 2000	16	0	0	0	0	0	24	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	29	0	0	0	0	0	30	30	17%
July 2001	10	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-38. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Bolsillo Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	23	30	8%
July 2000	5	0	0	0	0	0	6	31	78%
August 2000	2	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	13	0	0	0	0	0	24	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	29	0	0	0	0	0	30	30	17%
July 2001	11	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-39. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Camp 61 Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	20	0	0	0	0	0	31	31	17%
September 2000	9	0	0	0	0	0	30	30	57%
October 2000	15	0	0	0	0	0	24	31	82%
May 2001	9	0	0	0	0	0	9	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	11	0	0	0	0	0	11	31	54%
August 2001	4	0	0	0	0	0	4	31	19%
September 2001	12	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-40. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Mono Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	6	0	0	0	0	0	6	31	78%
August 2000	30	0	0	0	0	0	31	31	17%
September 2000	25	0	0	0	0	0	30	30	57%
October 2000	19	0	0	0	0	0	24	31	82%
May 2001	9	0	0	0	0	0	9	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	16	0	0	0	0	0	17	31	54%
August 2001	4	0	0	0	0	0	4	31	19%
September 2001	12	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-41. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Warm Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	17	0	0	0	0	0	18	30	17%
July 2001	12	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-42. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Rattlesnake Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	3	0	0	0	0	0	4	30	8%
July 2000	5	0	0	0	0	0	6	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	4	30	57%
October 2000	9	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	23	0	0	0	0	0	30	30	17%
July 2001	13	0	0	0	0	0	17	31	54%
August 2001	0	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-43. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of Hoffman Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	7	0	0	0	0	0	24	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	2	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	27	0	0	0	0	0	30	30	17%
July 2001	13	0	0	0	0	0	17	31	54%
August 2001	1	0	0	0	0	0	4	31	19%
September 2001	0	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-44. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	22	0	6	0	0	0	22	31	17%
September 2000	29	0	0	0	0	0	30	30	57%
October 2000	23	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	30	0	4	0	0	0	30	30	17%
July 2001	17	0	14	0	0	0	17	31	54%
August 2001	4	0	4	0	0	0	4	31	19%
September 2001	13	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-45. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of Florence Lake to Upstream of San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	16	0	0	0	0	0	22	31	17%
September 2000	8	0	0	0	0	0	30	30	57%
October 2000	17	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	17	0	0	0	0	0	17	31	54%
August 2001	3	0	0	0	0	0	4	31	19%
September 2001	3	0	0	0	0	0	13	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-46. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Downstream of Jackass Meadow, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	3	0	0	0	0	0	23	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	8	0	0	0	0	0	8	30	57%
October 2000	23	0	0	0	0	0	23	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	18	0	0	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-47. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Hooper Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	17	30	8%
July 2000	1	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	8	0	0	0	0	0	8	30	57%
October 2000	23	0	0	0	0	0	23	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	17	0	0	0	0	0	30	30	27%
October 2001	11	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-48. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Crater Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	4	0	0	0	0	0	18	30	8%
July 2000	10	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	7	0	0	0	0	0	8	30	57%
October 2000	24	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	22	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	17	0	0	0	0	0	30	30	27%
October 2001	6	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-49. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Bear Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	5	0	0	0	0	0	14	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	7	0	0	0	0	0	8	30	57%
October 2000	24	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	27	0	0	0	0	0	30	30	17%
July 2001	6	0	0	0	0	0	31	31	54%
August 2001	8	0	0	0	0	0	31	31	19%
September 2001	18	0	0	0	0	0	30	30	27%
October 2001	5	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-50. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Mono Hot Spring, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	7	0	0	0	0	0	23	30	8%
July 2000	30	0	0	0	0	0	31	31	78%
August 2000	12	0	0	0	0	0	21	31	17%
September 2000	7	0	0	0	0	0	8	30	57%
October 2000	20	0	0	0	0	0	24	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	3	0	0	0	0	0	3	30	17%
July 2001	25	0	0	0	0	0	31	31	54%
August 2001	30	0	0	0	0	0	31	31	19%
September 2001	29	0	0	0	0	0	30	30	27%
October 2001	8	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-51. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Camp 62 Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	9	0	0	0	0	0	23	30	8%
July 2000	31	0	0	0	0	0	31	31	78%
August 2000	18	0	0	0	0	0	21	31	17%
September 2000	8	0	0	0	0	0	8	30	57%
October 2000	20	0	0	0	0	0	24	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	30	0	1	0	0	0	31	31	54%
August 2001	31	0	1	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-52. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Bolsillo Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	9	0	0	0	0	0	23	30	8%
July 2000	31	0	0	0	0	0	31	31	78%
August 2000	20	0	0	0	0	0	21	31	17%
September 2000	8	0	0	0	0	0	8	30	57%
October 2000	20	0	0	0	0	0	24	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	30	0	2	0	0	0	30	30	17%
July 2001	30	0	2	0	0	0	31	31	54%
August 2001	31	0	2	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-53. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Camp 61 Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	31	0	2	0	0	0	31	31	78%
August 2000	21	0	1	0	0	0	21	31	17%
September 2000	8	0	0	0	0	0	8	30	57%
October 2000	19	0	0	0	0	0	24	31	82%
May 2001	9	0	0	0	0	0	9	31	2%
June 2001	30	0	5	0	0	0	30	30	17%
July 2001	25	0	7	0	0	0	25	31	54%
August 2001	31	0	16	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-54. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Mono Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	31	0	2	0	0	0	31	31	78%
August 2000	21	0	2	0	0	0	21	31	17%
September 2000	8	0	0	0	0	0	8	30	57%
October 2000	19	0	0	0	0	0	24	31	82%
May 2001	9	0	0	0	0	0	9	31	2%
June 2001	30	0	6	0	0	0	30	30	17%
July 2001	31	0	8	0	0	0	31	31	54%
August 2001	31	0	16	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	11	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-55. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Warm Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	18	0	0	0	0	0	18	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	31	0	3	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	10	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-56. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Rattlesnake Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	31	0	0	0	0	0	31	31	78%
August 2000	13	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	4	30	57%
October 2000	14	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	30	0	2	0	0	0	30	30	17%
July 2001	31	0	3	0	0	0	31	31	54%
August 2001	31	0	11	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	11	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-57. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Hoffman Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	14	0	0	0	0	0	14	31	17%
September 2000	7	0	0	0	0	0	8	30	57%
October 2000	19	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	31	0	3	0	0	0	31	31	54%
August 2001	31	0	6	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	11	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-58. Comparison of Daily Mean Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	12	0	3	0	0	0	12	31	17%
September 2000	8	0	0	0	0	0	8	30	57%
October 2000	24	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	30	0	4	0	0	0	30	30	17%
July 2001	31	0	26	0	0	0	31	31	54%
August 2001	31	0	26	0	0	0	31	31	19%
September 2001	30	0	1	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-59. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Downstream of Jackass Meadow, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	7	0	0	0	0	0	23	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	8	0	0	0	0	0	8	30	57%
October 2000	23	0	0	0	0	0	23	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	17	0	0	0	0	0	30	30	27%
October 2001	11	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-60. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Hooper Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	4	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	8	30	57%
October 2000	16	0	0	0	0	0	23	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	6	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	9	0	0	0	0	0	30	30	27%
October 2001	11	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-61. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Crater Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	7	0	0	0	0	0	18	30	8%
July 2000	1	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	1	0	0	0	0	0	8	30	57%
October 2000	18	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	23	0	0	0	0	0	30	30	17%
July 2001	2	0	0	0	0	0	31	31	54%
August 2001	6	0	0	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	5	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-62. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Bear Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	14	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	8	30	57%
October 2000	13	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	23	0	0	0	0	0	30	30	17%
July 2001	2	0	0	0	0	0	31	31	54%
August 2001	6	0	0	0	0	0	31	31	19%
September 2001	13	0	0	0	0	0	30	30	27%
October 2001	2	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-63. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Mono Hot Springs, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	9	0	0	0	0	0	23	30	8%
July 2000	3	0	0	0	0	0	31	31	78%
August 2000	3	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	8	30	57%
October 2000	3	0	0	0	0	0	24	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	3	30	17%
July 2001	6	0	0	0	0	0	31	31	54%
August 2001	14	0	0	0	0	0	31	31	19%
September 2001	14	0	0	0	0	0	30	30	27%
October 2001	3	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-64. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Camp 62 Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	23	30	8%
July 2000	6	0	0	0	0	0	31	31	78%
August 2000	6	0	0	0	0	0	21	31	17%
September 2000	1	0	0	0	0	0	8	30	57%
October 2000	5	0	0	0	0	0	24	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	29	0	0	0	0	0	30	30	17%
July 2001	16	0	0	0	0	0	31	31	54%
August 2001	27	0	0	0	0	0	31	31	19%
September 2001	28	0	0	0	0	0	30	30	27%
October 2001	10	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-65. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Bolsillo Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	9	0	0	0	0	0	23	30	8%
July 2000	3	0	0	0	0	0	31	31	78%
August 2000	3	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	8	30	57%
October 2000	3	0	0	0	0	0	24	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	29	0	0	0	0	0	30	30	17%
July 2001	20	0	0	0	0	0	31	31	54%
August 2001	28	0	0	0	0	0	31	31	19%
September 2001	27	0	0	0	0	0	30	30	27%
October 2001	5	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-66. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Camp 61 Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	8	0	0	0	0	0	31	31	78%
August 2000	20	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	8	30	57%
October 2000	6	0	0	0	0	0	24	31	82%
May 2001	9	0	0	0	0	0	9	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	25	0	0	0	0	0	25	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-67. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Mono Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	10	0	0	0	0	0	31	31	78%
August 2000	21	0	0	0	0	0	21	31	17%
September 2000	4	0	0	0	0	0	8	30	57%
October 2000	12	0	0	0	0	0	24	31	82%
May 2001	9	0	0	0	0	0	9	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	30	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	9	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-68. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Warm Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	16	0	0	0	0	0	18	30	17%
July 2001	21	0	0	0	0	0	31	31	54%
August 2001	29	0	0	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	2	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-69. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Rattlesnake Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	4	30	8%
July 2000	5	0	0	0	0	0	31	31	78%
August 2000	2	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	4	30	57%
October 2000	2	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	18	0	0	0	0	0	30	30	17%
July 2001	19	0	0	0	0	0	31	31	54%
August 2001	29	0	0	0	0	0	31	31	19%
September 2001	27	0	0	0	0	0	30	30	27%
October 2001	3	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-70. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of Hoffman Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	5	0	0	0	0	0	14	31	17%
September 2000	0	0	0	0	0	0	8	30	57%
October 2000	2	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	24	0	0	0	0	0	30	30	17%
July 2001	16	0	0	0	0	0	31	31	54%
August 2001	28	0	0	0	0	0	31	31	19%
September 2001	19	0	0	0	0	0	30	30	27%
October 2001	1	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-71. Comparison of Daily Maximum Temperatures: Boulder Creek Upstream of Florence Lake to South Fork San Joaquin River Upstream of San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	12	0	0	0	0	0	12	31	17%
September 2000	0	0	0	0	0	0	8	30	57%
October 2000	6	0	0	0	0	0	24	31	82%
May 2001	12	0	0	0	0	0	12	31	2%
June 2001	29	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	12	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.

[2] South Fork San Joaquin River including Boulder Creek is impounded by Florence Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-72. Tombstone, North Slide, and South Slide Creeks – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Tombstone Creek *			North Slide Creek *		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	23	0	0	23
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	23	0	0	23
May 2001	-	-	0	-	-	0
June 2001	0	0	23	0	0	23
July 2001	0	0	16	0	0	31
August 2001	-	-	0	0	0	31
September 2001	-	-	0	0	0	30
October 2001	-	-	0	0	0	22

Month	South Slide Creek *		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0
June 2000	0	0	23
July 2000	0	0	31
August 2000	0	0	14
September 2000	-	-	0
October 2000	-	-	0
May 2001	-	-	0
June 2001	0	0	23
July 2001	0	0	23
August 2001	-	-	0
September 2001	-	-	0
October 2001	-	-	0

* Not in operation during monitoring period.

Table CAWG 5-73. Tombstone, North Slide, and South Slide Creeks - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Tombstone Creek				North Slide Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	9.7	14.7	4.3	23	9.9	14.4	3.9	23
July 2000	10.5	16.0	6.1	31	10.4	15.7	5.7	31
August 2000	10.4	14.7	8.2	31	11.1	15.0	6.4	31
September 2000	11.3	15.0	9.1	30	8.1	12.6	3.9	30
October 2000	9.9	13.5	7.8	23	4.9	9.4	0.6	23
May 2001	-	-	-	0	-	-	-	0
June 2001	11.3	19.5	5.4	23	9.8	14.3	5.1	23
July 2001	11.8	15.2	5.6	16	11.2	15.4	7.3	31
August 2001	-	-	-	0	11.8	15.4	7.5	31
September 2001	-	-	-	0	9.2	12.7	5.9	30
October 2001	-	-	-	0	6.7	10.6	3.3	22

Month	South Slide Creek			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	8.7	14.6	3.3	23
July 2000	10.3	18.1	4.7	31
August 2000	12.4	20.5	6.7	14
September 2000	-	-	-	0
October 2000	-	-	-	0
May 2001	-	-	-	0
June 2001	9.5	17.2	4.1	23
July 2001	11.2	19.3	6.0	23
August 2001	-	-	-	0
September 2001	-	-	-	0
October 2001	-	-	-	0

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-74. Hooper Creek – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Hooper Creek Upstream of the Diversion			Hooper Creek Diversion		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	--	0	-	-	0 (0)
June 2000	0	0	1	0	0	23 (0)
July 2000	0	0	31	0	0	31 (0)
August 2000	0	0	31	0	0	31 (0)
September 2000	0	0	30	0	0	30 (0)
October 2000	0	0	23	-	-	0 (0)
May 2001	-	-	0	-	0	0 (31)
June 2001	0	0	23	0	0	23 (30)
July 2001	0	0	31	0	0	31 (20)
August 2001	0	0	31	0	0	31 (0)
September 2001	0	0	30	0	0	30 (0)
October 2001	0	0	22	0	0	22 (0)

Month	Hooper Creek Downstream of the Diversion			Hooper Creek Upstream of the South Fork San Joaquin River		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (0)	-	-	0 (0)
June 2000	0	0	2 (0)	0	0	17 (0)
July 2000	0	0	31 (0)	0	0	31 (0)
August 2000	0	0	31 (0)	0	0	31 (0)
September 2000	0	0	30 (0)	0	0	30 (0)
October 2000	0	0	23 (0)	0	0	23 (0)
May 2001	-	-	0 (31)	-	0	0 (31)
June 2001	0	0	23 (30)	0	0	23 (30)
July 2001	0	0	31 (20)	0	0	31 (20)
August 2001	0	0	31 (0)	0	0	31 (0)
September 2001	0	0	30 (0)	0	0	30 (0)
October 2001	0	0	22 (0)	0	0	22 (0)

Table CAWG 5-75. Comparison of Daily Mean Temperatures: Hooper Creek Upstream of Diversion to Downstream of Hooper Diversion, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	3	21%
June 2000	0	0	0	0	0	0	1	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	23	0	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	20	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	0	0	0	22	0	8%

[1] Months without monitoring are hatched.
[2] Hooper Creek is diverted by Hooper Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-76. Comparison of Daily Maximum Temperatures: Hooper Creek Upstream of Diversion to Downstream of Hooper Diversion, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	3	21%
June 2000	0	0	0	0	0	0	1	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	23	0	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	20	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	0	0	0	22	0	8%

[1] Months without monitoring are hatched.

[2] Hooper Creek is diverted by Hooper Diversion.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-77. Comparison of Daily Mean Temperatures: Hooper Creek Upstream of Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	3	21%
June 2000	0	0	0	0	0	0	1	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	23	0	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	20	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	0	0	0	22	0	8%

[1] Months without monitoring are hatched.
[2] Hooper Creek is diverted by Hooper Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-78. Comparison of Daily Maximum Temperatures: Hooper Creek Upstream of Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	3	21%
June 2000	0	0	0	0	0	0	1	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	23	0	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	20	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	0	0	0	22	0	8%

[1] Months without monitoring are hatched.

[2] Hooper Creek is diverted by Hooper Diversion.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-79. Hooper Creek - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Hooper Creek Upstream of Diversion				Hooper Creek Diversion			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	10.5	14.4	7.7	1	8.8	14.6	2.0	23
July 2000	9.7	15.7	4.0	31	9.9	15.9	4.1	31
August 2000	10.3	16.0	5.1	31	10.5	16.2	5.5	31
September 2000	7.5	12.7	3.1	30	7.8	12.9	3.3	30
October 2000	4.3	9.6	0.2	23	-	-	-	0
May 2001	-	-	-	0	-	-	-	0
June 2001	9.4	15.2	3.9	23	9.4	15.2	3.9	23
July 2001	10.5	16.4	6.0	31	10.6	16.2	6.1	31
August 2001	11.2	16.6	6.2	31	11.3	16.3	6.2	31
September 2001	8.6	14.1	5.0	30	8.7	14.0	5.0	30
October 2001	5.9	11.0	2.4	22	5.9	10.9	2.6	22

Month	Hooper Creek Downstream of Diversion				Hooper Creek Upstream of South Fork San Joaquin River			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	10.3	14.6	7.8	2	10.2	13.7	7.0	17
July 2000	9.9	15.8	4.2	31	10.1	14.8	5.0	31
August 2000	10.5	16.2	5.4	31	10.7	14.9	6.4	31
September 2000	7.8	12.9	3.2	30	8.1	11.5	4.2	30
October 2000	4.4	9.6	0.2	23	5.0	9.2	0.9	23
May 2001	-	-	-	0	-	-	-	0
June 2001	9.3	15.0	3.7	23	9.8	14.2	4.9	23
July 2001	10.5	16.0	5.9	31	10.9	15.1	6.9	31
August 2001	11.2	16.3	6.1	31	11.5	15.1	7.2	31
September 2001	8.6	13.9	4.8	30	9.1	12.6	6.0	30
October 2001	5.8	10.7	2.5	22	6.6	10.1	3.6	22

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-80. Crater Creek and Crater Creek Diversion Channel- Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Crater Creek Diversion Inflow to Florence Lake			Crater Creek Upstream of South Fork of San Joaquin River Confluence		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (31)	-	-	0 (31)
June 2000	0	0	23 (30)	0	0	18 (30)
July 2000	0	0	28 (23)	0	0	31 (23)
August 2000	0	0	17 (0)	0	0	31 (0)
September 2000	-	-	0 (0)	0	0	30 (0)
October 2000	-	-	0 (0)	0	0	31 (0)
May 2001	-	-	0 (31)	-	-	0 (31)
June 2001	0	0	23 (30)	0	0	23 (30)
July 2001	0	1	26 (15)	0	0	31 (15)
August 2001	-	-	0 (0)	0	0	31 (0)
September 2001	-	-	0 (0)	0	0	30 (0)
October 2001	-	-	0 (0)	0	0	22 (0)

Month	Crater Creek Diversion Channel		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (31)
June 2000	0	0	18 (30)
July 2000	0	0	31 (23)
August 2000	0	0	31 (0)
September 2000	0	0	30 (0)
October 2000	0	0	31 (0)
May 2001	-	-	0 (31)
June 2001	0	0	23 (30)
July 2001	0	0	31 (15)
August 2001	0	0	31 (0)
September 2001	0	0	30 (0)
October 2001	0	0	27 (0)

Table CAWG 5-81. Comparison of Daily Mean Temperatures: Crater Creek at Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	7	0	0	0	0	0	18	30	8%
July 2000	23	0	0	8	0	0	31	23	78%
August 2000	0	0	0	30	0	0	31	0	17%
September 2000	0	0	0	30	0	0	30	0	57%
October 2000	0	0	0	31	0	0	31	0	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	8	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	31	15	54%
August 2001	0	0	0	11	0	0	31	0	19%
September 2001	0	0	0	30	0	0	30	0	27%
October 2001	0	0	0	22	0	0	22	0	8%

[1] Months without monitoring are hatched.
[2] Crater Creek is diverted by Crater Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-82. Comparison of Daily Maximum Temperatures: Crater Creek at Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	11	0	0	0	0	0	18	30	8%
July 2000	23	0	0	8	0	0	31	23	78%
August 2000	0	0	0	31	0	0	31	0	17%
September 2000	0	0	0	30	0	0	30	0	57%
October 2000	0	0	0	31	0	0	31	0	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	16	0	0	0	0	0	23	30	17%
July 2001	0	0	0	1	0	0	31	15	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	17	0	0	30	0	27%
October 2001	0	0	0	22	0	0	22	0	8%

[1] Months without monitoring are hatched.

[2] Crater Creek is diverted by Crater Diversion.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-83. Crater Creek and Crater Creek Diversion Channel-Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	Crater Creek Upstream of the Diversion				Crater Creek Upstream of the Confluence of the South Fork San Joaquin River			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	11.8	17.1	4.2	23	13.4	18.7	9.6	18
July 2000	12.7	19.2	7.3	28	14.4	19.2	9.9	31
August 2000	15.4	23.0	11.0	17	14.3	18.7	11.3	31
September 2000	-	-	-	0	13.5	17.6	10.5	30
October 2000	-	-	-	0	10.0	15.7	4.9	31
May 2001	-	-	-	0	-	-	-	0
June 2001	11.9	16.1	7.3	23	12.0	17.5	8.4	23
July 2001	13.6	25.0	10.7	26	11.4	14.9	8.9	31
August 2001	-	-	-	0	12.1	14.8	9.2	31
September 2001	-	-	-	0	10.4	13.4	8.6	30
October 2001	-	-	-	0	9.1	11.5	7.5	22

Month	Crater Creek Diversion Channel			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	10.8	14.7	6.8	18
July 2000	10.1	12.3	7.1	31
August2000	9.4	12.6	6.2	31
September 2000	6.1	8.8	3.7	30
October 2000	2.5	6.4	0.1	31
May 2001	-	-	-	0
June 2001	9.9	12.7	6.7	23
July 2001	9.9	14.1	6.7	31
August 2001	9.4	14.4	5.3	31
September 2001	6.9	11.8	4.0	30
October 2001	4.5	8.1	1.7	27

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-84. Comparison of Daily Mean Temperatures: Crater Creek at Diversion to Crater Creek Diversion Inflow to Florence Lake, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	18	30	8%
July 2000	5	0	0	8	0	0	28	23	78%
August 2000	0	0	0	17	0	0	17	0	17%
September 2000	0	0	0	0	0	0	0	0	57%
October 2000	0	0	0	0	0	0	0	0	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	2	0	0	0	0	0	23	30	17%
July 2001	12	0	0	11	0	0	26	15	54%
August 2001	0	0	0	0	0	0	0	0	19%
September 2001	0	0	0	0	0	0	0	0	27%
October 2001	0	0	0	0	0	0	0	0	8%

[1] Months without monitoring are hatched.
[2] Crater Creek is diverted by Crater Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-85. Comparison of Daily Maximum Temperatures: Crater Creek at Diversion to Crater Creek Diversion Inflow to Florence Lake, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	9	0	0	0	0	0	18	30	8%
July 2000	17	0	0	8	0	0	28	23	78%
August 2000	0	0	0	17	0	0	17	0	17%
September 2000	0	0	0	0	0	0	0	0	57%
October 2000	0	0	0	0	0	0	0	0	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	6	0	0	0	0	0	23	30	17%
July 2001	14	0	0	11	0	1	26	15	54%
August 2001	0	0	0	0	0	0	0	0	19%
September 2001	0	0	0	0	0	0	0	0	27%
October 2001	0	0	0	0	0	0	0	0	8%

[1] Months without monitoring are hatched.

[2] Crater Creek is diverted by Crater Diversion.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-86. Bear Creek – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Bear Creek Upstream of Diversion			Bear Creek Diversion *		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	24	0	0	23
July 2000	0	0	31	0	0	31
August 2000	0	0	24	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	7	0	0	31
May 2001	-	-	0	-	-	0
June 2001	0	0	20	0	0	20
July 2001	0	0	31	0	0	31
August 2001	0	0	31	1	0	31
September 2001	0	0	26	0	0	30
October 2001	-	-	0	0	0	11

Month	Bear Creek Downstream of Bear Diversion *			Bear Creek Upstream of South Fork San Joaquin River *		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	-	-	0	0	0	24
July 2000	0	0	14	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	6	0	0	31
May 2001	-	-	0	0	0	31
June 2001	0	0	19	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	31	0	0	13

* In operation continuously except for three days in October 2000.

Table CAWG 5-87. Bear Creek - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Bear Creek Upstream of Diversion				Bear Creek Diversion			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	8.6	14.6	1.9	24	8.5	14.1	2.2	23
July 2000	12.8	17.7	7.1	31	13.0	17.3	7.8	31
August 2000	13.6	18.9	9.1	24	14.2	17.5	11.2	31
September 2000	10.9	16.5	6.3	30	11.4	15.9	7.9	30
October 2000	9.8	15.3	6.9	7	6.8	11.0	1.1	31
May 2001	-	-	-	0	-	-	-	0
June 2001	12.6	17.7	7.6	20	13.1	17.8	8.6	20
July 2001	14.0	20.2	10.1	31	15.3	20.1	10.8	31
August 2001	15.3	20.6	9.8	31	18.2	21.0	14.9	31
September 2001	12.8	19.0	7.8	26	15.2	19.4	12.5	30
October 2001	-	-	-	0	12.7	15.6	9.8	11

Month	Bear Creek Downstream of Diversion				Bear Creek Upstream of South Fork San Joaquin River Confluence			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	10.0	15.3	4.6	24
July 2000	14.2	16.6	11.0	14	14.5	18.1	10.1	31
August 2000	13.9	16.9	11.3	31	14.9	18.3	11.7	31
September 2000	11.0	13.6	8.2	30	11.7	15.1	8.3	30
October 2000	10.6	11.4	10.0	6	7.1	12.6	1.6	31
May 2001	-	-	-	0	10.2	16.2	5.3	31
June 2001	13.0	16.1	9.4	19	14.5	18.4	10.5	30
July 2001	14.4	17.0	11.2	31	15.6	18.9	12.6	31
August 2001	16.0	17.6	13.5	31	16.5	19.2	13.2	31
September 2001	13.5	16.5	11.4	30	13.5	17.3	10.7	30
October 2001	9.2	13.2	5.0	31	11.1	14.1	8.3	13

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-88. Comparison of Daily Mean Temperatures: Bear Creek Upstream of Bear Creek Diversion to Downstream of Bear Creek Diversion, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	14	31	78%
August 2000	0	0	0	0	0	0	24	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	6	28	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	19	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	26	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] Bear Creek is diverted by Bear Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-89. Comparison of Daily Mean Temperatures: Bear Creek Upstream of Bear Creek Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	24	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	24	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	7	28	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	5	0	0	0	0	0	20	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	26	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] Bear Creek is impounded by Bear Diversion Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-90. Comparison of Daily Maximum Temperatures: Bear Creek Upstream of Bear Creek Diversion to Downstream of Bear Creek Diversion, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	14	31	78%
August 2000	0	0	0	0	0	0	24	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	6	28	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	19	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	26	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] Bear Creek is impounded by Bear Diversion Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-91. Comparison of Daily Maximum Temperatures: Bear Creek Upstream of Bear Creek Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	24	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	24	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	7	28	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	5	0	0	0	0	0	20	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	26	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] Bear Creek is impounded by Bear Diversion Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-92. Mono Creek – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Mono Creek Upstream of the Diversion			Mono Creek Diversion		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0	-	-	0 (31)
June 2000	0	0	24	0	0	24 (30)
July 2000	0	0	31	0	0	18 (31)
August 2000	0	0	31	0	0	30 (31)
September 2000	0	0	30	0	0	26 (23)
October 2000	0	0	31	0	0	31 (19)
May 2001	-	-	0	-	-	0 (31)
June 2001	0	0	20	0	0	20 (30)
July 2001	0	0	31	0	0	31 (31)
August 2001	0	0	31	0	0	31 (31)
September 2001	0	0	30	0	0	30 (30)
October 2001	0	0	10	0	0	11 (31)

Month	Mono Creek Downstream of the Diversion			Mono Creek Upstream of the South Fork San Joaquin River		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (31)	-	-	0 (31)
June 2000	0	0	24 (30)	0	0	4 (30)
July 2000	0	0	31 (31)	0	0	31 (31)
August 2000	0	0	31 (31)	0	0	31 (31)
September 2000	0	0	30 (23)	0	0	30 (23)
October 2000	0	0	31 (19)	0	0	31 (19)
May 2001	-	-	0 (31)	0	0	9 (31)
June 2001	0	0	20 (30)	0	0	30 (30)
July 2001	0	0	31 (31)	0	0	31 (31)
August 2001	0	0	31 (31)	0	0	31 (31)
September 2001	0	0	3 (30)	0	0	30 (30)
October 2001	0	0	20 (31)	0	0	23 (31)

Table CAWG 5-93. Mono Creek - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Mono Creek Upstream of the Diversion				Mono Creek Diversion			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	10.1	14.1	7.9	24	13.6	16.2	9.6	24
July 2000	9.9	13.6	8.4	31	11.0	15.4	9.0	18
August 2000	10.5	11.8	9.9	31	10.7	11.8	10.0	30
September 2000	11.3	14.1	9.6	30	11.6	14.0	10.1	26
October 2000	10.5	14.1	7.8	31	10.7	13.1	7.9	31
May 2001	-	-	-	0	-	-	-	0
June 2001	10.6	15.5	7.9	20	13.6	17.6	9.8	20
July 2001	10.4	15.0	8.9	31	10.8	15.4	9.6	31
August 2001	12.4	16.3	10.6	31	12.5	15.8	10.7	31
September 2001	15.8	18.1	13.5	30	15.9	18.4	13.6	30
October 2001	14.0	17.1	12.3	10	14.1	16.3	12.1	11

Month	Mono Creek Downstream of the Diversion				Mono Creek Upstream of the South Fork San Joaquin River			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	10.9	14.5	8.2	24	14.8	17.1	12.0	4
July 2000	10.1	13.5	9.0	31	14.8	17.4	11.6	31
August 2000	10.6	12.4	9.7	31	14.2	17.3	11.3	31
September 2000	11.3	13.3	9.7	30	12.2	14.9	9.0	30
October 2000	10.0	12.1	7.6	31	9.0	12.9	5.3	31
May 2001	-	-	-	0	14.4	17.8	11.7	9
June 2001	11.6	16.3	8.8	20	14.7	18.4	10.9	30
July 2001	10.7	13.4	9.7	31	15.2	18.6	12.4	31
August 2001	12.5	15.8	10.7	31	16.0	18.7	12.3	31
September 2001	15.7	16.9	14.7	3	14.2	17.3	11.2	30
October 2001	11.1	13.6	9.0	20	10.6	14.4	7.5	23

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-94. Comparison of Daily Mean Temperatures: Mono Creek Upstream of Mono Diversion to Downstream of Mono Diversion, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	24	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	23	57%
October 2000	0	0	0	0	0	0	31	19	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	20	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	3	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] Mono Creek is impounded by Vermilion Valley Dam and Mono Diversion and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-95. Comparison of Daily Maximum Temperatures: Mono Creek Upstream of Mono Diversion to Downstream of Mono Diversion, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	24	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	23	57%
October 2000	0	0	0	0	0	0	31	19	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	20	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	3	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] Mono Creek is impounded by Vermilion Valley Dam and Mono Diversion and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-96. Comparison of Daily Mean Temperatures: Mono Creek Upstream of Mono Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	4	0	0	0	0	0	4	30	8%
July 2000	31	0	0	0	0	0	31	31	78%
August 2000	25	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	23	57%
October 2000	0	0	0	0	0	0	31	19	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	20	0	0	0	0	0	20	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	20	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	10	31	8%

[1] Months without monitoring are hatched.
[2] Mono Creek downstream of Mono Diversion is diverted throughout the summer, flows are released from storage at Vermilion Valley Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-97. Comparison of Daily Maximum Temperatures: Mono Creek Upstream of Mono Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	4	0	0	0	0	0	4	30	8%
July 2000	30	0	0	0	0	0	31	31	78%
August 2000	31	0	0	0	0	0	31	31	17%
September 2000	2	0	0	0	0	0	30	23	57%
October 2000	0	0	0	0	0	0	31	19	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	3	0	0	0	0	0	20	30	17%
July 2001	29	0	0	0	0	0	31	31	54%
August 2001	24	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	10	31	8%

[1] Months without monitoring are hatched.
[2] Mono Creek downstream of Mono Diversion is diverted throughout the summer, flows are released from storage at Vermilion Valley Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-98. Chinquapin Creek and Camp 62 Creek – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Chinquapin Creek Diversion			Camp 62 Creek Diversion		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (0)	-	0	0 (0)
June 2000	0	0	29 (0)	0	0	24 (0)
July 2000	0	0	31 (0)	0	0	31 (0)
August 2000	0	0	31 (0)	0	0	31 (0)
September 2000	0	0	30 (0)	0	0	30 (0)
October 2000	0	0	31 (0)	0	0	31 (0)
May 2001	0	0	11 (23)	0	0	11 (20)
June 2001	0	0	30 (12)	0	0	30 (29)
July 2001	0	0	31 (5)	0	0	31 (15)
August 2001	0	0	31 (0)	0	0	31 (0)
September 2001	0	0	30 (0)	0	0	30 (0)
October 2001	0	0	13 (0)	0	0	13 (0)

Month	Camp 62 Creek Upstream of South Fork San Joaquin River		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (0)
June 2000	0	0	29 (0)
July 2000	0	0	31 (0)
August 2000	0	0	31 (0)
September 2000	0	0	30 (0)
October 2000	0	0	31 (0)
May 2001	0	0	10 (20)
June 2001	0	0	30 (29)
July 2001	0	0	31 (15)
August 2001	0	0	31 (0)
September 2001	0	0	30 (0)
October 2001	0	0	23 (0)

Table CAWG 5-99. Chinquapin Creek and Camp 62 Creek - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	Chinquapin Creek Diversion[3]				Camp 62 Creek Diversion			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	8.1	12.2	2.9	29	8.0	11.9	2.4	24
July 2000	9.6	12.4	6.6	31	9.5	12.9	6.0	31
August 2000	10.2	12.7	7.9	31	10.7	13.3	8.4	31
September 2000	7.5	9.6	5.6	30	8.4	10.8	6.2	30
October 2000	3.7	7.0	0.5	31	4.5	8.5	0.8	31
May 2001	7.1	10.6	4.4	11	6.6	10.5	3.9	11
June 2001	8.8	13.1	4.8	30	8.5	11.8	4.0	30
July 2001	10.6	13.8	8.4	31	10.6	12.9	8.5	31
August 2001	10.9	14.5	8.4	31	12.0	13.6	9.9	31
September 2001	8.6	12.8	6.7	30	9.9	12.7	8.1	30
October 2001	6.7	9.2	4.7	13	8.0	9.3	6.2	13

Month	Camp 62 Creek Upstream of the South Fork San Joaquin River			
	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	9.2	13.8	3.7	29
July 2000	12.6	17.4	8.1	31
August 2000	14.6	17.7	11.5	31
September 2000	12.2	15.3	9.0	30
October 2000	8.5	13.2	4.0	31
May 2001	11.1	14.4	8.9	10
June 2001	12.3	17.1	8.3	30
July 2001	14.5	18.0	11.7	31
August 2001	15.6	18.2	12.2	31
September 2001	13.3	16.7	10.3	30
October 2001	10.7	14.0	8.0	23

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

[3] Chinquapin Creek is a tributary of Camp 62 Creek

Table CAWG 5-100. Comparison of Daily Mean Temperatures: Camp 62 Creek at Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	0	21%
June 2000	0	0	0	0	0	0	24	0	8%
July 2000	0	0	0	18	0	0	31	0	78%
August 2000	0	0	0	31	0	0	31	0	17%
September 2000	0	0	0	30	0	0	30	0	57%
October 2000	0	0	0	31	0	0	31	0	82%
May 2001	10	0	0	0	0	0	10	20	2%
June 2001	29	0	0	1	0	0	30	29	17%
July 2001	15	0	0	16	0	0	31	15	54%
August 2001	0	0	0	31	0	0	31	0	19%
September 2001	0	0	0	30	0	0	30	0	27%
October 2001	0	0	0	13	0	0	13	0	8%

[1] Months without monitoring are hatched.
[2] Camp 62 Creek is diverted by Camp 62 Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-101. Comparison of Daily Maximum Temperatures: Camp 62 Creek at Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	0	21%
June 2000	0	0	0	0	0	0	24	0	8%
July 2000	0	0	0	20	0	0	31	0	78%
August 2000	0	0	0	31	0	0	31	0	17%
September 2000	0	0	0	30	0	0	30	0	57%
October 2000	0	0	0	31	0	0	31	0	82%
May 2001	10	0	0	0	0	0	10	20	2%
June 2001	29	0	0	1	0	0	30	29	17%
July 2001	15	0	0	16	0	0	31	15	54%
August 2001	0	0	0	31	0	0	31	0	19%
September 2001	0	0	0	30	0	0	30	0	27%
October 2001	0	0	0	13	0	0	13	0	8%

[1] Months without monitoring are hatched.

[2] Camp 62 Creek is diverted by Camp 62 Diversion.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-102. Comparison of Daily Mean Temperatures: Chinquapin Creek at Diversion to Camp 62 Creek Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	0	21%
June 2000	0	0	0	0	0	0	29	0	8%
July 2000	0	0	0	16	0	0	31	0	78%
August 2000	0	0	0	31	0	0	31	0	17%
September 2000	0	0	0	30	0	0	30	0	57%
October 2000	0	0	0	31	0	0	31	0	82%
May 2001	10	0	0	0	0	0	10	23	2%
June 2001	12	0	0	18	0	0	30	12	17%
July 2001	5	0	0	26	0	0	31	5	54%
August 2001	0	0	0	31	0	0	31	0	19%
September 2001	0	0	0	30	0	0	30	0	27%
October 2001	0	0	0	13	0	0	13	0	8%

[1] Months without monitoring are hatched.
[2] Chinquapin Creek is diverted by Chinquapin Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-103. Comparison of Daily Maximum Temperatures: Chinquapin Creek at Diversion to Camp 62 Creek Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000								0	21%
June 2000	0	0	0	0	0	0	29	0	8%
July 2000	0	0	0	21	0	0	31	0	78%
August 2000	0	0	0	31	0	0	31	0	17%
September 2000	0	0	0	30	0	0	30	0	57%
October 2000	0	0	0	31	0	0	31	0	82%
May 2001	10	0	0	0	0	0	10	23	2%
June 2001	12	0	0	18	0	0	30	12	17%
July 2001	5	0	0	26	0	0	31	5	54%
August 2001	0	0	0	31	0	0	31	0	19%
September 2001	0	0	0	30	0	0	30	0	27%
October 2001	0	0	0	13	0	0	13	0	8%

[1] Months without monitoring are hatched.

[2] Chinquapin Creek is diverted by Chinquapin Diversion.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-104. Bolsillo Creek – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Bolsillo Creek Diversion			Bolsillo Creek Upstream of South Fork San Joaquin River		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (0)	-	-	0 (0)
June 2000	0	0	29 (0)	0	0	29 (0)
July 2000	0	0	31 (0)	0	0	31 (0)
August 2000	0	0	31 (0)	0	0	31 (0)
September 2000	0	0	30 (0)	0	0	30 (0)
October 2000	0	0	31 (0)	0	0	31 (0)
May 2001	0	0	11 (31)	0	0	10 (31)
June 2001	0	0	30 (17)	0	0	30 (17)
July 2001	0	0	31 (2)	0	0	31 (2)
August 2001	0	0	31 (0)	0	0	31 (0)
September 2001	0	0	30 (0)	0	0	30 (0)
October 2001	0	0	13 (0)	0	0	23 (0)

Table CAWG 5-105. Bolsillo Creek - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Bolsillo Creek Diversion				Bolsillo Creek Upstream of the South Fork San Joaquin River			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	9.8	13.5	4.1	29	10.8	14.8	4.7	29
July 2000	10.3	13.4	7.3	31	11.6	14.8	8.4	31
August 2000	10.9	13.7	8.4	31	12.0	16.2	8.4	31
September 2000	8.1	10.6	5.8	30	10.0	14.1	6.9	30
October 2000	4.1	8.4	0.3	31	7.0	12.3	3.6	31
May 2001	9.2	12.5	6.5	11	10.5	13.3	8.4	10
June 2001	9.8	13.7	6.6	30	10.8	13.9	7.9	30
July 2001	11.4	14.4	9.1	31	12.1	16.9	9.0	31
August 2001	12.4	15.1	9.7	31	14.4	18.4	10.5	31
September 2001	10.0	13.3	7.9	30	11.5	15.4	6.1	30
October 2001	8.1	10.8	5.9	13	8.7	15.2	3.6	23

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-106. Comparison of Daily Mean Temperatures: Bolsillo Creek at Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	0	21%
June 2000	0	0	0	0	0	0	29	0	8%
July 2000	0	0	0	0	0	0	31	0	78%
August 2000	0	0	0	0	0	0	31	0	17%
September 2000	0	0	0	0	0	0	30	0	57%
October 2000	0	0	0	21	0	0	31	0	82%
May 2001	0	0	0	0	0	0	10	31	2%
June 2001	0	0	0	0	0	0	30	17	17%
July 2001	0	0	0	0	0	0	31	2	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	0	0	0	13	0	8%

[1] Months without monitoring are hatched.
[2] Bolsillo Creek is diverted by Bolsillo Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-107. Comparison of Daily Maximum Temperatures: Bolsillo Creek at Diversion to Upstream of South Fork San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	0	21%
June 2000	0	0	0	0	0	0	29	0	8%
July 2000	0	0	0	0	0	0	31	0	78%
August 2000	0	0	0	17	0	0	31	0	17%
September 2000	0	0	0	26	0	0	30	0	57%
October 2000	0	0	0	22	0	0	31	0	82%
May 2001	0	0	0	0	0	0	10	31	2%
June 2001	0	0	0	0	0	0	30	17	17%
July 2001	0	0	0	1	0	0	31	2	54%
August 2001	0	0	0	8	0	0	31	0	19%
September 2001	0	0	0	3	0	0	30	0	27%
October 2001	0	0	0	8	0	0	13	0	8%

[1] Months without monitoring are hatched.

[2] Bolsillo Creek is diverted by Bolsillo Diversion.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-108. Warm Creek Upstream of the South Fork San Joaquin River – Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	Warm Creek Upstream of the South Fork San Joaquin River			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	11.6	12.7	10.7	5
July 2000	11.2	12.2	9.8	31
August 2000	11.9	12.8	10.8	31
September 2000	9.2	10.1	8.0	30
October 2000	7.4	8.3	6.5	12
May 2001	8.3	13.0	2.3	23
June 2001	10.8	13.4	7.6	21
July 2001	11.8	14.1	9.3	31
August 2001	12.8	14.8	10.3	31
September 2001	10.6	12.9	8.1	30
October 2001	8.9	11.2	5.9	11

[1] Maximum temperature observed for the month
[2] Minimum temperature observed for the month

Table CAWG 5-109. Warm Creek Upstream of the South Fork San Joaquin River – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C

Month	Warm Creek Upstream of the South Fork San Joaquin River		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0
June 2000	0	0	5
July 2000	0	0	31
August 2000	0	0	31
September 2000	0	0	30
October 2000	0	0	12
May 2001	0	0	23
June 2001	0	0	21
July 2001	0	0	31
August 2001	0	0	31
September 2001	0	0	30
October 2001	0	0	11

Table CAWG 5-110. South Fork San Joaquin River Undiverted Tributaries – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Rattlesnake Creek			Hoffman Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	4	-	-	0
July 2000	0	0	31	0	0	25
August 2000	0	0	13	0	0	31
September 2000	0	0	4	0	0	30
October 2000	0	0	31	0	0	31
May 2001	0	0	31	-	-	0
June 2001	0	0	30	0	0	10
July 2001	0	0	31	0	0	23
August 2001	0	0	31	0	0	23
September 2001	0	0	30	0	0	30
October 2001	0	0	24	0	0	27

Month	Four Forks Creek			Rube Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	-	-	0	-	-	0
July 2000	-	-	-	-	-	0
August 2000	0	0	23	0	0	24
September 2000	0	0	30	0	0	30
October 2000	0	0	31	0	0	31
May 2001	0	0	31	0	0	31
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	25	0	0	26

Table CAWG 5-111. South Fork San Joaquin River Undiverted Tributaries - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Rattlesnake Creek				Hoffman Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	12.6	14.5	10.2	4	-	-	-	0
July 2000	11.6	14.9	7.7	31	10.0	12.6	7.1	25
August 2000	12.6	15.3	9.0	13	10.5	13.1	7.5	31
September 2000	7.9	9.2	6.2	4	7.9	10.9	5.4	30
October 2000	4.9	9.0	0.3	31	4.7	8.0	1.1	31
May 2001	8.0	13.7	2.5	31	-	-	-	0
June 2001	10.9	14.3	6.6	30	12.0	12.9	11.2	10
July 2001	12.3	15.3	8.9	31	13.0	14.8	11.5	23
August 2001	12.5	15.3	8.9	31	10.8	13.9	8.3	23
September 2001	9.7	12.8	6.7	30	8.8	12.2	6.6	30
October 2001	6.8	10.2	3.5	24	6.2	10.0	3.5	27

Month	Four Forks Creek				Rube Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	-	-	-	0
July 2000	-	-		0	-	-	-	0
August 2000	11.1	14.1	7.5	23	11.8	15.0	8.3	24
September 2000	8.9	12.5	4.9	30	10.0	14.4	6.3	30
October 2000	5.5	9.7	1.1	31	6.5	11.9	1.7	31
May 2001	8.1	12.9	1.5	31	7.2	13.3	1.4	31
June 2001	10.1	13.9	5.6	30	10.6	15.1	6.5	30
July 2001	11.8	15.2	8.4	31	12.3	16.4	9.0	31
August 2001	12.1	14.9	8.4	31	13.2	16.8	9.5	31
September 2001	9.8	13.0	7.0	30	11.3	14.6	8.4	30
October 2001	7.2	10.8	4.0	25	9.2	13.1	5.9	26

[1] Maximum temperature observed for the month.
[2] Minimum temperature observed for the month.

Table CAWG 5-112. San Joaquin River Upstream of Mammoth Pool - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	San Joaquin River Upstream of the South Fork San Joaquin River				San Joaquin River Upstream of Mammoth Pool			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	-	-	-	0
July 2000	-	-	-	0	-	-	-	0
August 2000	16.8	18.7	14.9	22	-	-	-	0
September 2000	14.7	17.8	12.6	30	15.9	17.8	14.1	19
October 2000	10.5	15.4	4.7	31	11.6	15.5	7.9	27
May 2001	8.7	14.5	3.2	31	-	-	-	0
June 2001	13.9	17.7	8.4	30	15.4	18.7	11.9	25
July 2001	17.3	20.1	14.9	31	18.3	20.7	16.0	31
August 2001	18.7	21.1	15.8	31	19.5	21.2	17.0	31
September 2001	16.4	19.0	13.9	30	17.1	19.7	14.7	30
October 2001	12.6	16.4	8.8	31	14.4	16.8	12.2	16

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-113. San Joaquin River Upstream of Mammoth Pool - Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	San Joaquin River Upstream of the South Fork San Joaquin River			San Joaquin River Upstream of Mammoth Pool		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	-	-	0	-	-	0
July 2000	-	-	0	-	-	0
August 2000	0	0	22	-	-	0
September 2000	0	0	30	0	0	19
October 2000	0	0	31	0	0	27
May 2001	0	0	31	-	-	0
June 2001	0	0	30	0	0	25
July 2001	1	0	31	6	0	31
August 2001	11	0	31	25	0	31
September 2001	0	0	30	1	0	30
October 2001	0	0	31	0	0	16

Table CAWG 5-114. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Mammoth Pool Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	19	30	57%
October 2000	0	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	25	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River upstream of SFSJR confluence is not diverted, but SFSJR River is a tributary to the reach upstream of Mammoth Pool and is impounded by Florence Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-115. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Mammoth Pool Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	19	30	57%
October 2000	0	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	25	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River upstream of SFSJR confluence is not diverted, but SFSJR River is a tributary to the reach upstream of Mammoth Pool and is impounded by Florence Dam.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-116. Comparison of Daily Mean Temperatures: South Fork San Joaquin River Upstream of San Joaquin River Confluence to San Joaquin River Upstream of Mammoth Pool Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	19	30	57%
October 2000	0	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	25	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River upstream of SFSJR confluence is not diverted, but SFSJR River is a tributary to the reach upstream of Mammoth Pool and is impounded by Florence Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-117. Comparison of Daily Maximum Temperatures: South Fork San Joaquin River Upstream of San Joaquin River Confluence to San Joaquin River Upstream of Mammoth Pool Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	19	30	57%
October 2000	0	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	25	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River upstream of SFSJR confluence is not diverted, but SFSJR River is a tributary to the reach upstream of Mammoth Pool and is impounded by Florence Dam.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-118. Mammoth Pool Tributaries - Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Jackass Creek Upstream of Mammoth Pool			Mill Creek Upstream of Mammoth Pool		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	16	0	0	16
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	6	0	0	6
October 2000	-	-	0	0	0	22
May 2001	-	-	-	-	-	0
June 2001	0	0	25	0	0	18
July 2001	0	0	29	0	0	14
August 2001	0	0	28	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	16	0	0	16

Month	Kaiser Creek Upstream of Mammoth Pool			Daulton Creek Upstream of Mammoth Pool		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	-
June 2000	-	-	0	0	0	16
July 2000	0	0	12	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	27	0	0	31
May 2001	-	-	0	-	-	0
June 2001	0	0	25	0	0	25
July 2001	0	0	31	2	0	31
August 2001	0	0	31	6	2	31
September 2001	0	0	24	0	0	30
October 2001	-	-	0	0	0	16

Table CAWG 5-118. Mammoth Pool Tributaries – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C (cont).

Month	Chiquito Creek Upstream of Mammoth Pool		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0
June 2000	-	-	0
July 2000	10	0	12
August 2000	15	0	31
September 2000	0	0	30
October 2000	0	0	27
Mav 2001	-	-	0
June 2001	3	0	25
July 2001	29	0	31
August 2001	28	0	31
September 2001	6	0	24
October 2001	-	-	0

Table CAWG 5-119. Mammoth Pool Tributaries - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	Jackass Creek Upstream of Mammoth Pool				Mill Creek Upstream of Mammoth Pool			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	17.0	19.1	14.9	16	16.7	19.8	13.8	16
July 2000	15.1	18.7	10.0	31	15.8	20.6	11.6	31
August 2000	15.8	19.2	12.4	31	16.6	21.0	12.4	31
September 2000	12.9	14.9	10.4	6	13.6	16.6	10.2	6
October 2000	-	-	-	0	10.0	17.2	4.8	22
May 2001	-	-	-	0	-	-	-	0
June 2001	14.7	18.1	11.4	25	14.6	19.2	10.8	18
July 2001	16.5	19.7	13.7	29	16.6	21.2	13.4	14
August 2001	16.2	19.2	13.4	28	17.0	21.2	13.4	31
September 2001	14.2	17.1	11.5	30	15.1	19.1	11.7	30
October 2001	12.1	14.6	9.7	16	13.2	16.8	9.6	16

Month	Kaiser Creek Upstream of Mammoth Pool				Daulton Creek Upstream of Mammoth Pool			
	Temperature (ºC)			Days Monitored	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	15.9	18.1	13.2	16	16.2	19.9	12.7	16
July 2000	15.3	19.4	11.3	31	15.6	20.8	10.7	31
August 2000	15.8	19.7	11.8	31	16.4	21.0	11.6	31
September 2000	12.5	14.8	9.5	6	13.4	17.4	9.6	30
October 2000	-	-	-	0	9.7	14.4	4.2	31
May 2001	-	-	-	0	-	-	-	0
June 2001	14.4	18.2	10.7	25	14.6	20.0	9.7	25
July 2001	16.7	20.3	13.3	31	17.3	21.8	13.1	31
August 2001	16.6	20.0	13.0	31	18.1	24.5	13.9	31
September 2001	13.5	17.1	10.4	30	15.7	20.6	12.1	30
October 2001	10.6	13.2	7.9	16	12.9	16.4	9.9	16

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-119. Mammoth Pool Tributaries - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures (cont).

Month	Chiquito Creek Upstream of Mammoth Pool			
	Temperature (ºC)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	-	-	-	0
July 2000	19.4	21.7	16.7	12
August 2000	19.0	22.2	15.6	31
September 2000	15.5	18.4	12.8	30
October 2000	11.5	15.4	7.2	27
May 2001	-	-	-	0
June 2001	17.4	21.5	13.2	25
July 2001	20.2	23.5	17.1	31
August 2001	20.6	23.2	17.0	31
September 2001	18.0	20.9	14.9	24
October 2001	-	-	-	0

[1] Maximum temperature observed for the month
[2] Minimum temperature observed for the month

Table CAWG 5-120. San Joaquin River Mammoth Pool Dam to Mammoth Pool Powerhouse - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	San Joaquin River Downstream of Mammoth Pool				San Joaquin River Upstream of Rock Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	17.0	20.6	12.1	15	17.6	19.2	16.2	5
July 2000	14.7	17.8	11.8	31	18.0	21.8	14.9	25
August 2000	17.8	20.4	15.6	31	19.3	22.3	17.5	31
September 2000	18.8	20.1	17.6	30	18.3	19.9	16.8	30
October 2000	15.8	19.1	12.1	31	15.0	18.1	11.0	31
May 2001	-	-	-	0	-	-	-	0
June 2001	14.7	16.3	12.7	25	18.9	21.3	16.5	24
July 2001	15.1	16.6	13.6	31	18.4	20.5	16.8	31
August 2001	17.3	19.9	15.4	31	19.2	20.8	17.1	31
September 2001	19.8	21.0	18.4	30	19.0	20.5	17.3	30
October 2001	17.1	19.4	14.9	28	16.4	18.6	14.6	19

Month	San Joaquin River Upstream of Ross Creek				San Joaquin River Upstream of the Mammoth Pool Powerhouse			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	19.4	21.5	17.1	3	18.5	21.5	16.0	3
July 2000	19.8	23.9	15.9	25	18.1	26.8	11.7	5
August 2000	20.5	24.4	16.8	31	20.0	24.4	13.8	14
September 2000	18.1	21.3	15.4	30	18.0	22.2	14.3	15
October 2000	14.4	19.2	9.3	31	14.5	18.9	9.8	30
May 2001	16.3	21.4	10.6	31	16.1	21.1	10.5	31
June 2001	19.7	24.2	14.0	30	19.5	23.9	13.9	30
July 2001	20.8	24.8	17.8	31	20.7	24.6	17.7	31
August 2001	20.8	24.4	17.2	31	20.6	24.3	17.1	31
September 2001	19.1	22.5	15.7	30	18.9	22.4	15.8	30
October 2001	15.3	19.7	11.8	31	15.2	19.6	11.9	31

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-121. San Joaquin River Mammoth Pool Dam to Mammoth Pool Powerhouse – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	San Joaquin River Downstream of Mammoth Pool			San Joaquin River Upstream of Rock Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	1	0	15	0	0	5
July 2000	0	0	31	4	0	25
August 2000	4	0	31	17	0	31
September 2000	9	0	30	6	0	30
October 2000	0	0	31	0	0	31
May 2001	-	-	0	-	-	0
June 2001	0	0	25	13	0	24
July 2001	0	0	31	6	0	31
August 2001	3	0	31	22	0	31
September 2001	28	0	30	18	0	30
October 2001	2	0	28	0	0	19

Month	San Joaquin River Upstream of Ross Creek			San Joaquin River Upstream of Mammoth Pool Powerhouse		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	-	-	-	0
June 2000	3	0	3	0	0	3
July 2000	21	0	25	1	1	5
August 2000	29	4	31	13	1	14
September 2000	8	0	30	1	0	15
October 2000	0	0	31	0	0	30
May 2001	1	0	31	0	0	31
June 2001	22	2	30	21	0	30
July 2001	31	4	31	31	2	31
August 2001	29	2	31	28	1	31
September 2001	16	0	30	14	0	30
October 2001	0	0	31	0	0	31

Table CAWG 5-122. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of Mammoth Pool Site to San Joaquin River Mammoth Pool Reach Downstream of Mammoth Pool Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	10	0	0	0	0	0	19	30	57%
October 2000	27	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	25	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	19	0	17	0	0	0	30	30	27%
October 2001	15	0	2	0	0	0	16	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-123. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Downstream of Mammoth Pool Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	2	0	1	0	0	0	22	31	17%
September 2000	27	0	7	0	0	0	30	30	57%
October 2000	31	0	0	0	0	0	31	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	25	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	23	0	21	0	0	0	30	30	27%
October 2001	28	0	2	0	0	0	28	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-124. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of Mammoth Pool Site to San Joaquin River Mammoth Pool Reach Downstream of Mammoth Pool Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	12	0	0	0	0	0	19	30	57%
October 2000	27	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	25	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	19	0	0	0	0	0	30	30	27%
October 2001	11	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River is impounded by Mammoth Pool Dam throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-125. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Downstream of Mammoth Pool Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	2	0	0	0	0	0	22	31	17%
September 2000	23	0	0	0	0	0	30	30	57%
October 2000	31	0	0	0	0	0	31	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	0	0	0	0	0	0	25	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	23	0	0	0	0	0	30	30	27%
October 2001	27	0	0	0	0	0	28	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-126. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of Mammoth Pool Site to San Joaquin River Mammoth Pool Reach Upstream of Rock Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	6	0	0	0	0	0	19	30	57%
October 2000	27	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	21	0	11	0	0	0	24	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-127. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Rock Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	3	0	2	0	0	0	22	31	17%
September 2000	27	0	4	0	0	0	30	30	57%
October 2000	31	0	0	0	0	0	31	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	23	0	13	0	0	0	24	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	15	0	7	0	0	0	30	30	27%
October 2001	9	0	0	0	0	0	19	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-128. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of Mammoth Pool Site to San Joaquin River Mammoth Pool Reach Upstream of Rock Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	5	0	0	0	0	0	19	30	57%
October 2000	24	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	22	0	0	0	0	0	24	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River is impounded by Mammoth Pool Dam throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-129. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Rock Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	1	0	0	0	0	0	22	31	17%
September 2000	20	0	0	0	0	0	30	30	57%
October 2000	29	0	0	0	0	0	31	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	23	0	0	0	0	0	24	30	17%
July 2001	1	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	5	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	19	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-130. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of Mammoth Pool Site to San Joaquin River Mammoth Pool Reach Upstream of Ross Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	6	0	2	0	0	0	19	30	57%
October 2000	22	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	25	0	22	0	0	0	25	30	17%
July 2001	9	1	9	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-131. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Ross Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	19	0	17	0	0	0	22	31	17%
September 2000	28	0	8	0	0	0	30	30	57%
October 2000	31	0	0	0	0	0	31	31	82%
May 2001	31	0	1	0	0	0	31	31	2%
June 2001	30	0	22	0	0	0	30	30	17%
July 2001	23	0	23	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	9	0	5	0	0	0	30	30	27%
October 2001	7	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-132. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of Mammoth Pool Site to San Joaquin River Mammoth Pool Reach Upstream of Ross Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	16	0	0	0	0	0	19	30	57%
October 2000	25	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	25	0	2	0	0	0	25	30	17%
July 2001	29	0	4	0	0	0	31	31	54%
August 2001	10	0	2	0	0	0	31	31	19%
September 2001	16	0	0	0	0	0	30	30	27%
October 2001	6	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River is impounded by Mammoth Pool Dam throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-133. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Ross Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	22	0	0	0	0	0	22	31	17%
September 2000	29	0	0	0	0	0	30	30	57%
October 2000	31	0	0	0	0	0	31	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	30	0	2	0	0	0	30	30	17%
July 2001	31	0	4	0	0	0	31	31	54%
August 2001	24	0	2	0	0	0	31	31	19%
September 2001	28	0	0	0	0	0	30	30	27%
October 2001	23	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-134. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of Mammoth Pool Site to San Joaquin River Mammoth Pool Reach Upstream of Mammoth Pool Powerhouse, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	3	0	0	0	0	0	15	30	57%
October 2000	19	0	0	0	0	0	26	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	25	0	21	0	0	0	25	30	17%
July 2001	8	1	8	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-135. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Mammoth Pool Powerhouse, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	7	0	7	0	0	0	13	31	17%
September 2000	8	0	1	0	0	0	15	30	57%
October 2000	28	0	0	0	0	0	30	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	30	0	21	0	0	0	30	30	17%
July 2001	19	0	19	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	4	0	2	0	0	0	30	30	27%
October 2001	6	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-136. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of Mammoth Pool Site to San Joaquin River Mammoth Pool Reach Upstream of Mammoth Pool Powerhouse, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	14	0	0	0	0	0	15	30	57%
October 2000	24	0	0	0	0	0	26	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	25	0	0	0	0	0	25	30	17%
July 2001	28	0	2	0	0	0	31	31	54%
August 2001	7	0	1	0	0	0	31	31	19%
September 2001	11	0	0	0	0	0	30	30	27%
October 2001	5	0	0	0	0	0	16	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River is impounded by Mammoth Pool Dam throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-137. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Mammoth Pool Powerhouse, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	13	0	0	0	0	0	13	31	17%
September 2000	14	0	0	0	0	0	15	30	57%
October 2000	30	0	0	0	0	0	30	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	19	0	1	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	21	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-138. Shakeflat, Horsethief, and Fish Creeks – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Shakeflat Creek			Horsethief Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	-	0	0	-	-	0
July 2000	0	0	25	0	0	25
August 2000	0	0	31	0	0	30
September 2000	0	0	30	0	0	26
October 2000	0	0	31	0	0	31
May 2001	-	-	0	0	0	14
June 2001	0	0	25	0	0	30
July 2001	1	0	31	0	0	31
August 2001	18	1	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	28	0	0	27

Month	Fish Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0
June 2000	-	-	0
July 2000	0	0	25
August 2000	0	0	30
September 2000	0	0	26
October 2000	0	0	31
May 2001	0	0	14
June 2001	0	0	30
July 2001	0	0	31
August 2001	0	0	31
September 2001	0	0	30
October 2001	0	0	27

Table CAWG 5-139. Shakeflat, Horsethief, and Fish Creeks - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Shakeflat Creek Upstream of the San Joaquin River				Horsethief Creek Upstream of the San Joaquin River			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	-	-	-	0
July 2000	16.8	19.5	14.2	25	12.7	18.3	8.4	25
August 2000	17.4	19.8	14.7	31	13.2	18.3	8.9	30
September 2000	15.1	17.2	12.8	30	10.5	14.8	6.9	26
October 2000	12.2	15.5	8.0	31	7.0	12.0	2.2	31
May 2001	-	-	-	0	10.7	16.0	7.0	14
June 2001	15.9	19.0	13.3	25	11.2	17.1	6.2	30
July 2001	17.9	20.8	15.4	31	13.6	18.4	9.8	31
August 2001	18.9	24.7	14.7	31	13.9	17.9	10.2	31
September 2001	16.6	22.5	12.0	30	11.7	15.7	8.8	30
October 2001	13.4	21.3	10.6	28	9.0	13.0	6.5	27

Month	Fish Creek Upstream Of the San Joaquin River			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	15.4	18.2	12.9	16
July 2000	14.4	18.9	10.4	31
August 2000	15.0	19.5	11.0	31
September 2000	11.2	13.5	8.5	11
October 2000	-	-	-	0
May 2001	11.2	16.4	4.5	31
June 2001	13.2	17.9	9.3	30
July 2001	15.3	20.0	11.6	31
August 2001	15.3	23.8	8.0	31
September 2001	13.0	22.6	7.0	30
October 2001	9.7	17.4	6.8	28

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-140. Rock Creek - Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Rock Creek Diversion			Rock Creek Upstream of the San Joaquin River		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (31)	-	-	0 (31)
June 2000	0	0	15 (30)	1	0	15 (30)
July 2000	1	0	31 (31)	11	0	31 (31)
August 2000	5	0	31 (31)	7	0	31 (31)
September 2000	0	0	30 (30)	0	0	30 (30)
October 2000	0	0	31 (31)	0	0	31 (31)
May 2001	0	0	31 (31)	-	-	0 (31)
June 2001	0	0	29 (30)	20	0	24 (30)
July 2001	2	0	7 (31)	30	0	31 (31)
August 2001	14	0	31 (31)	22	0	31 (31)
September 2001	0	0	30 (30)	0	0	30 (30)
October 2001	0	0	12 (31)	0	0	28 (31)

Table CAWG 5-141. Rock Creek - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	Rock Creek Diversion				Rock Creek Upstream of the San Joaquin River			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	17.7	21.3	12.7	15	18.2	21.9	14.4	15
July 2000	16.6	21.1	12.1	31	18.2	21.4	12.5	31
August 2000	17.3	22.0	13.0	31	18.1	22.1	14.7	31
September 2000	14.0	18.0	10.5	30	14.7	18.2	12.4	30
October 2000	10.1	15.2	4.3	31	11.0	15.0	6.8	31
May 2001	12.8	19.5	5.0	31	-	-	-	0
June 2001	15.5	20.7	10.6	29	20.1	23.8	16.7	24
July 2001	18.5	22.7	15.4	7	20.2	23.6	17.7	31
August 2001	18.8	23.3	14.1	31	19.2	22.4	15.9	31
September 2001	16.1	20.3	12.3	30	16.4	20.1	13.4	30
October 2001	13.7	16.6	9.6	12	12.6	16.6	9.7	28

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-142. Comparison of Daily Mean Temperatures: Rock Creek at Diversion Dam to Upstream of San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	15	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	31	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	17	0	16	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	7	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.
[2] Rock Creek is impounded by Rock Diversion Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-143. Comparison of Daily Maximum Temperatures: Rock Creek at Diversion Dam to Upstream of San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	15	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	1	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	31	31	82%
May 2001	0	0	0	0	0	0	0	31	2%
June 2001	13	0	0	0	0	0	23	30	17%
July 2001	0	0	0	0	0	0	7	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	12	31	8%

[1] Months without monitoring are hatched.
[2] Rock Creek is impounded by Rock Diversion Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-144. Ross Creek – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Ross Creek Diversion			Ross Creek Upstream of the San Joaquin River		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (31)	-	-	0 (31)
June 2000	3	0	9 (30)	0	0	9 (30)
July 2000	12	5	31 (31)	0	0	2 (31)
August 2000	23	10	31 (31)	-	-	0 (31)
September 2000	0	0	11 (12)	-	-	0 (12)
October 2000	-	-	0 (0)	0	0	26 (0)
May 2001	0	0	31 (31)	14	17	31 (31)
June 2001	11	7	30 (30)	28	29	30 (30)
July 2001	24	11	24 (30)	17	14	17 (30)
August 2001	-	-	0 (0)	-	-	0 (0)
September 2001	-	-	0 (0)	-	-	0 (0)
October 2001	-	-	0 (0)	-	-	0 (0)

Table CAWG 5-145. Ross Creek - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	Ross Creek Diversion				Ross Creek Upstream of San Joaquin River			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	18.8	23.9	14.3	9	12.0	13.2	10.9	9
July 2000	18.4	25.6	11.7	31	12.4	13.2	11.8	2
August'2000	20.1	25.9	14.0	31	-	-	-	0
September 2000	16.4	20.5	12.8	11	-	-	-	0
October2000	-	-	-	0	14.0	18.4	9.7	26
May 2001	14.8	22.8	6.4	31	18.7	31.7	9.0	31
June 2001	18.2	26.4	10.9	30	21.2	31.1	11.9	30
July 2001	20.5	26.6	16.0	24	23.1	28.9	18.4	17
August'2001	-	-	-	0	-	-	-	0
September 2001	-	-	-	0	-	-	-	0
October 2001	-		-	0	-	-	-	0

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-146. Comparison of Daily Mean Temperatures: Ross Creek at Diversion Dam to Upstream of San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	9	30	8%
July 2000	0	0	0	0	0	0	2	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	12	57%
October 2000	0	0	0	0	0	0	0	0	82%
May 2001	29	0	14	0	0	0	31	31	2%
June 2001	17	0	15	0	0	0	30	30	17%
July 2001	1	1	1	0	0	0	12	30	54%
August 2001	0	0	0	0	0	0	0	0	19%
September 2001	0	0	0	0	0	0	0	0	27%
October 2001	0	0	0	0	0	0	0	0	8%

[1] Months without monitoring are hatched.
[2] Ross Creek is impounded by Ross Diversion Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-147. Comparison of Daily Maximum Temperatures: Ross Creek at Diversion Dam to Upstream of San Joaquin River Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	9	30	8%
July 2000	0	0	0	0	0	0	2	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	12	57%
October 2000	0	0	0	0	0	0	0	0	82%
May 2001	30	0	17	0	0	0	31	31	2%
June 2001	27	5	27	0	0	0	30	30	17%
July 2001	5	4	5	0	0	0	12	30	54%
August 2001	0	0	0	0	0	0	0	0	19%
September 2001	0	0	0	0	0	0	0	0	27%
October 2001	0	0	0	0	0	0	0	0	8%

[1] Months without monitoring are hatched.
[2] Ross Creek is impounded by Ross Diversion Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-148. Powerhouse 3 Forebay (Dam 6) - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Mammoth Pool Powerhouse Tailrace				Powerhouse 8 Tailrace			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	10.8	13.0	10.1	10	11.3	12.1	10.8	4
July 2000	13.6	17.2	11.3	22	12.3	13.9	11.2	31
August 2000	16.8	20.0	13.2	17	14.0	17.1	12.7	31
September 2000	-	-	-	0	15.5	18.1	13.9	30
October 2000	-	-	-	0	15.7	18.1	13.5	28
May 2001	-	-	-	0	7.3	8.8	6.1	27
June 2001	13.6	14.8	12.8	6	9.5	12.6	8.1	30
July 2001	14.7	20.3	13.1	31	12.2	15.0	10.5	31
August 2001	17.9	21.9	14.8	31	13.9	17.7	11.9	31
September 2001	21.3	22.9	19.3	28	16.6	18.5	14.3	30
October 2001	18.8	22.1	14.6	30	16.5	18.4	14.6	30

Month	Tunnel 3 Intake			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	11.8	11.7	11.1	4
July 2000	13.6	13.8	11.5	31
August 2000	17.2	17.1	14.5	31
September 2000	18.0	18.4	15.1	30
October 2000	16.1	15.9	13.2	31
May 2001	9.0	8.7	7.6	27
June 2001	11.8	11.8	9.6	30
July 2001	14.6	14.6	12.6	31
August 2001	17.2	17.0	13.2	31
September 2001	20.2	20.5	17.0	17
October 2001	-	-	-	0

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-149. Powerhouse 3 Forebay (Dam 6) – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Powerhouse 8 Tailrace			Tunnel 3 Intake		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	4	0	0	4
July 2000	0	0	31	0	0	31
August 2000	0	0	31	1	0	31
September 2000	0	0	30	4	0	30
October 2000	0	0	28	0	0	31
May 2001	0	0	27	0	0	27
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	6	0	31
September 2001	0	0	30	15	0	17
October 2001	0	0	30	-	-	0

Month	Mammoth Pool Powerhouse Tailrace		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0
June 2000	0	0	10
July 2000	0	0	22
August 2000	1	0	17
September 2000	-	-	0
October 2000	-	-	0
May 2001	-	-	0
June 2001	0	0	6
July 2001	0	0	31
August 2001	10	0	31
September 2001	28	0	28
October 2001	14	0	30

Table CAWG 5-150. San Joaquin River Stevenson Reach Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	San Joaquin River Downstream of Dam 6				San Joaquin River Upstream of Stevenson Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	12.8	18.4	11.5	7
July 2000	-	-	-	0	16.5	21.2	10.9	21
August 2000	-	-	-	0	18.0	21.7	15.6	31
September 2000	-	-	-	0	17.5	20.0	14.9	30
October 2000	-	-	-	0	14.6	18.4	11.5	28
May 2001	9.5	11.9	7.9	31	12.8	21.5	8.5	31
June 2001	11.6	14.2	9.4	30	17.9	23.3	10.4	30
July 2001	13.8	15.5	12.4	31	21.4	24.9	18.7	31
August 2001	15.7	18.2	13.5	31	21.0	23.9	18.1	31
September 2001	17.5	20.1	16.3	30	19.1	22.5	16.2	30
October 2001	16.5	18.7	14.1	31	15.8	19.7	13.2	31

[1] Maximum temperature observed for the month.
[2] Minimum temperature observed for the month.

Table CAWG 5-151. Number of Days When Water Temperature Exceeded Daily Mean of 19°C, Daily Maximum of 24°C, or Was Outside of Hardhead Preference Range.

Month	San Joaquin River Downstream Dam 6				San Joaquin River Upstream Stevenson Creek			
	Daily Mean >19°C	Daily Maximum >24°C	No. of Days Outside Hardhead Preference Range	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	No. of Days Outside Hardhead Preference Range	Days Monitored
May 2000	-	-	-	0	-	-	-	0
June 2000	-	-	-	0	0	0	7	7
July 2000	-	-	-	0	2	0	7	21
August 2000	-	-	-	0	7	0	0	31
September 2000	-	-	-	0	0	0	0	30
October 2000	-	-	-	0	0	0	19	28
May 2001	0	0	31	31	2	0	22	31
June 2001	0	0	30	30	15	0	6	30
July 2001	0	0	31	31	31	3	0	31
August 2001	0	0	11	31	31	0	0	31
September 2001	0	0	0	30	13	0	0	30
October 2001	0	0	6	31	0	0	10	31

Table CAWG 5-152. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Downstream of Dam 6, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	2	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	26	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-153. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of Mammoth Pool Powerhouse to Downstream of Dam 6, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-154. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Downstream of Dam 6, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-155. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of Mammoth Pool Powerhouse to Downstream of Dam 6, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-156. Comparison of Daily Mean Temperatures: Big Creek Upstream of Powerhouse 8 to San Joaquin River Stevenson Reach Downstream of Dam 6, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	20	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer. San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-157. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Powerhouse 8 to San Joaquin River Downstream of Dam 6, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	0	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer. San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-158. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Stevenson Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C[4]	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	4	0	4	0	0	0	22	31	17%
September 2000	13	0	0	0	0	0	30	30	57%
October 2000	26	0	0	0	0	0	28	31	82%
May 2001	14	0	2	0	0	0	31	31	2%
June 2001	24	0	15	0	0	0	30	30	17%
July 2001	27	0	27	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	8	0	3	0	0	0	30	30	27%
October 2001	28	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-159. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of Mammoth Pool Powerhouse to San Joaquin River Stevenson Reach Upstream of Stevenson Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000								31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	2	31	78%
August 2000	0	0	0	0	0	0	14	31	17%
September 2000	0	0	0	0	0	0	15	30	57%
October 2000	0	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River is impounded by Dam 6 throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-160. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Upstream of Stevenson Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	6	0	0	0	0	0	22	31	17%
September 2000	19	0	0	0	0	0	30	30	57%
October 2000	28	0	0	0	0	0	28	31	82%
May 2001	13	0	0	0	0	0	31	31	2%
June 2001	24	0	0	0	0	0	30	30	17%
July 2001	31	0	3	0	0	0	31	31	54%
August 2001	17	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	29	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-161. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of Mammoth Pool Powerhouse to San Joaquin River Stevenson Reach Upstream of Stevenson Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	2	31	78%
August 2000	0	0	0	0	0	0	14	31	17%
September 2000	0	0	0	0	0	0	15	30	57%
October 2000	0	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-162. Comparison of Daily Mean Temperatures: Big Creek Upstream of Powerhouse 8 to San Joaquin River Upstream of Stevenson Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	7	30	8%
July 2000	2	0	1	0	0	0	21	31	78%
August 2000	1	0	1	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	1	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer. San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-163. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Powerhouse 8 to San Joaquin River Upstream of Stevenson Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	7	30	8%
July 2000	1	0	0	0	0	0	21	31	78%
August 2000	1	0	0	0	0	0	31	31	17%
September 2000	1	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	1	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer. San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-164. San Joaquin River Redinger Lake Area - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	San Joaquin River Downstream of Powerhouse 3				Lake Redinger at Italian Bar Bridge			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	11.8	13.3	11.2	9	12.4	13.8	11.5	10
July 2000	13.3	14.7	11.6	31	14.2	20.0	11.9	31
August 2000	16.1	18.2	14.2	31	17.5	22.5	14.6	31
September 2000	17.2	19.3	15.0	30	18.9	21.6	16.5	30
October 2000	16.3	18.7	14.1	29	16.9	21.5	14.4	28
May 2001	9.5	11.9	7.9	31	9.2	11.5	8.1	31
June 2001	11.6	14.2	9.4	30	13.3	21.7	10.0	30
July 2001	13.8	15.5	12.4	31	19.0	23.7	13.1	31
August 2001	15.7	18.2	13.5	31	18.6	23.4	14.3	31
September 2001	17.5	20.1	16.3	30	19.7	21.9	16.7	24
October 2001	16.5	18.7	14.1	31	18.1	19.6	14.9	11

Month	Tunnel 4 Intake (Dam 7)			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	13.5	16.2	12.6	10
July 2000	15.2	27.2	12.8	29
August 2000	19.3	27.2	16.5	29
September 2000	18.2	19.7	17.1	30
October 2000	17.8	19.7	15.6	28
May 2001	11.0	16.5	8.9	31
June 2001	13.5	18.6	10.9	30
July 2001	16.4	22.4	13.9	31
August 2001	17.7	21.6	15.6	31
September 2001	19.9	21.7	18.3	27
October 2001	18.4	20.1	17.3	23

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-165. San Joaquin River Redinger Lake Area - Number of Days When Water Temperature Exceeded Daily Mean of 19°C, Daily Maximum of 24°C, or Was Outside of Hardhead Preference Range.

Month	San Joaquin River Downstream of Powerhouse 3				Lake Redinger at Italian Bar Bridge			
	Daily Mean >19°C	Daily Maximum >24°C	No. of Days Outside Hardhead Preference Range	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	No. of Days Outside Hardhead Preference Range	Days Monitored
May 2000	-	-	-	0	-	-	-	0
June 2000	0	0	9	9	0	0	10	10
July 2000	0	0	31	31	0	0	28	31
August 2000	0	0	5	31	6	0	2	31
September 2000	0	0	0	30	12	0	0	30
October 2000	0	0	6	29	4	0	2	28
May 2001	0	0	31	31	0	0	31	31
June 2001	0	0	30	30	0	0	23	30
July 2001	0	0	31	31	18	0	0	31
August 2001	0	0	11	31	8	0	0	31
September 2001	0	0	0	30	24	0	0	24
October 2001	0	0	6	31	0	0	0	11

Month	Tunnel 4 Intake (Dam 7)			
	Daily Mean >19°C	Daily Maximum >24°C	No. of Days Outside Hardhead Preference Range	Days Monitored
May 2000	-	-	-	0
June 2000	0	0	10	10
July 2000	4	2	24	29
August 2000	18	3	0	29
September 2000	2	0	0	30
October 2000	9	0	0	28
May 2001	0	0	31	31
June 2001	0	0	30	30
July 2001	0	0	1	31
August 2001	1	0	0	31
September 2001	27	0	0	27
October 2001	3	0	0	23

Table CAWG 5-166. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Downstream of Big Creek Powerhouse 3, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	22	31	17%
September 2000	11	0	0	0	0	0	30	30	57%
October 2000	28	0	0	0	0	0	28	31	82%
May 2001	1	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	1	0	0	0	0	0	25	30	27%
October 2001	15	0	0	0	0	0	15	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-167. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of Mammoth Pool Powerhouse to San Joaquin River Stevenson Reach Downstream of Big Creek Powerhouse 3, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	5	31	78%
August 2000	0	0	0	0	0	0	14	31	17%
September 2000	0	0	0	0	0	0	15	30	57%
October 2000	0	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	25	30	27%
October 2001	1	0	0	0	0	0	15	31	8%

[1] Months without monitoring are hatched.

[2] San Joaquin River is impounded by Dam 6 throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-168. Comparison of Daily Maximum Temperatures: San Joaquin River Upstream of South Fork San Joaquin River Confluence to Downstream of Big Creek Powerhouse 3, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	0	30	8%
July 2000	0	0	0	0	0	0	0	31	78%
August 2000	0	0	0	0	0	0	22	31	17%
September 2000	11	0	0	0	0	0	30	30	57%
October 2000	29	0	0	0	0	0	29	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	1	0	0	0	0	0	25	30	27%
October 2001	15	0	0	0	0	0	15	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-169. Comparison of Daily Mean Temperatures: San Joaquin River Upstream of Mammoth Pool Powerhouse to San Joaquin River Stevenson Reach Downstream of Big Creek Powerhouse 3, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	5	31	78%
August 2000	0	0	0	0	0	0	14	31	17%
September 2000	0	0	0	0	0	0	15	30	57%
October 2000	1	0	0	0	0	0	27	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	25	30	27%
October 2001	6	0	0	0	0	0	15	31	8%

[1] Months without monitoring are hatched.
[2] San Joaquin River is impounded by Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-170. Comparison of Daily Mean Temperatures: Big Creek Upstream of Powerhouse 8 to San Joaquin River Downstream of Big Creek Powerhouse 3, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	17	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer. San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-171. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Powerhouse 8 to San Joaquin River Stevenson Reach Downstream of Big Creek Powerhouse 3, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	17	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer. San Joaquin River is impounded by Mammoth Pool Dam and Dam 6 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-172. Saginaw Creek - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	Saginaw Creek			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	-	-	-	0
July 2000	22.7	26.6	19.4	9
August 2000	-	-	-	0
September 2000	-	-	-	0
October 2000	-	-	-	0
May 2001	18.2	27.0	9.6	31
June 2001	20.5	26.8	16.6	6
July 2001	-	-	-	0
August 2001	-	-	-	0
September 2001	-	-	-	0
October 2001	-	-	-	0

[1] Maximum temperature observed for the month
[2] Minimum temperature observed for the month

Table CAWG 5-173. Saginaw Creek – Number of Days When Water Temperature Exceeded Daily Mean of 19°C, Daily Maximum of 24°C, or Was Outside of Hardhead Preference Range.

Month	Saginaw Creek			
	Daily Mean >19°C	Daily Maximum >24°C	No. of Days Outside Hardhead Preference Range	Days Monitored
May 2000	-	-	-	0
June 2000	-	-	-	0
July 2000	9	7	0	9
August 2000	-	-	-	0
September 2000	-	-	-	0
October 2000	-	-	-	0
May 2001	12	10	4	31
June 2001	6	6	0	6
July 2001	-	-	-	0
August 2001	-	-	-	0
September 2001	-	-	-	0
October 2001	-	-	-	0

Table CAWG 5-174. Huntington Lake Tributaries – Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Big Creek Upstream of Huntington Lake				Potter Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	14.7	18.3	11.1	17	11.1	15.4	7.6	11
July 2000	14.7	21.5	10.0	19	10.0	14.1	5.6	19
August 2000	16.1	23.8	9.7	17	11.4	16.6	6.8	31
September 2000	12.5	20.0	6.3	30	9.0	14.7	4.8	30
October 2000	7.3	15.6	1.5	25	6.1	12.4	2.0	25
May 2001	6.6	16.0	0.4	31	7.1	14.3	0.9	31
June 2001	14.2	24.6	8.1	30	10.0	15.7	4.7	30
July 2001	16.9	27.3	10.9	31	12.0	17.7	7.9	31
August 2001	17.9	38.1	6.3	31	12.7	18.4	7.9	31
September 2001	12.2	38.1	4.7	30	10.7	16.8	7.0	30
October 2001	7.5	12.7	4.2	24	8.1	13.9	4.2	24

Month	Portal Powerhouse Tailrace				Rancheria Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	8.8	10.4	7.9	11	11.9	15.5	8.6	11
July 2000	10.7	12.1	8.8	30	11.1	15.9	6.2	31
August 2000	12.3	13.8	11.5	31	11.4	15.9	6.8	31
September 2000	13.7	16.0	9.9	20	8.1	12.7	4.8	30
October 2000	-	-	-	0	4.9	9.3	3.6	25
May 2001	6.5	9.8	4.2	31	6.1	14.4	0.5	31
June 2001	9.4	11.8	7.1	30	10.2	15.5	4.8	30
July 2001	11.7	13.5	10.4	31	11.8	16.7	7.9	31
August 2001	13.4	16.5	11.3	31	11.9	16.3	7.1	31
September 2001	16.8	18.1	15.4	30	9.2	14.1	5.5	30
October 2001	14.4	15.7	12.7	18	6.2	11.1	4.4	24

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-174. Huntington Lake Tributaries – Monthly Mean, Maximum[1], and Minimum[2] Temperatures (cont).

Month	Coon Creek				Line Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	13.0	18.4	8.7	17	10.2	16.4	2.1	25
July 2000	11.5	16.1	6.7	31	11.5	17.4	6.5	31
August 2000	11.2	16.3	6.7	31	13.2	17.9	8.8	13
September 2000	7.6	10.7	4.2	30	-	-	-	0
October 2000	4.2	7.7	0.9	25	-	-	-	0
May 2001	9.5	15.9	3.6	13	8.2	14.3	3.6	13
June 2001	10.5	15.7	5.3	30	10.4	16.5	4.7	30
July 2001	11.8	17.0	7.8	31	12.7	18.4	8.9	31
August 2001	11.2	14.8	7.3	31	13.1	19.1	8.6	31
September 2001	8.2	11.1	5.6	30	10.5	15.1	7.4	30
October 2001	5.3	8.4	2.3	24	8.4	12.0	5.5	14

Month	Home Camp Creek			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	11.0	16.9	2.6	25
July 2000	12.4	21.6	6.0	31
August 2000	12.6	18.0	7.9	31
September 2000	9.1	13.0	5.6	30
October 2000	5.2	9.9	0.7	25
May 2001	8.4	14.4	3.4	13
June 2001	11.2	16.8	5.9	30
July 2001	13.3	18.4	9.2	31
August 2001	13.2	17.4	8.7	31
September 2001	10.2	14.4	6.8	30
October 2001	7.7	10.7	4.7	14

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-175. Huntington Lake Tributaries - Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Big Creek Upstream of Huntington Lake			Home Camp Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	17	0	0	25
July 2000	0	0	19	0	0	31
August 2000	0	0	17	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	25	0	0	25
Mav 2001	0	0	31	0	0	13
June 2001	0	1	30	0	0	30
July 2001	0	16	31	0	0	31
August 2001	6	31	31	0	0	31
September 2001	0	12	30	0	0	30
October 2001	-	0	24	0	0	14

Month	Line Creek			Potter Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	25	0	0	11
July 2000	0	0	31	0	0	19
August 2000	0	0	13	0	0	31
September 2000	0	0	0	0	0	30
October 2000	0	0	0	0	0	25
Mav 2001	0	0	13	0	0	31
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	14	0	0	24

Table CAWG 5-175. Huntington Lake Tributaries – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C (cont).

Month	Coon Creek			Portal Powerhouse Tailrace		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	17	0	0	11
July 2000	0	0	31	0	0	30
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	20
October 2000	0	0	25	-	-	0
May 2001	0	0	13	0	0	31
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	24	0	0	18

Month	Rancheria Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0
June 2000	0	0	11
July 2000	0	0	31
August 2000	0	0	31
September 2000	0	0	30
October 2000	0	0	25
May 2001	0	0	31
June 2001	0	0	30
July 2001	0	0	31
August 2001	0	0	31
September 2001	0	0	30
October 2001	0	0	24

Table CAWG 5-176. Big Creek Powerhouse 1 to Dam 1 – Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Big Creek Downstream of Dam 1				Big Creek Canyon			
	Temperature (°C)				Temperature (°C)			
	Average	Maximum	Minimum	Days Monitored	Average	Maximum	Minimum	Days Monitored
May 2000	-	-	-	0	-	-	-	0
June 2000	8.7	10.4	7.5	25	12.8	14.9	10.6	11
July 2000	11.3	12.9	9.6	31	12.5	16.0	8.9	31
August 2000	13.4	14.3	12.3	31	13.4	16.7	10.0	31
September 2000	14.3	15.1	13.8	30	11.5	14.1	8.7	30
October 2000	13.6	14.9	11.6	30	8.4	12.3	3.8	30
May 2001	6.9	8.1	6.1	13	9.9	13.4	6.1	13
June 2001	9.3	11.0	7.3	30	11.2	14.5	7.3	30
July 2001	11.2	12.4	10.2	31	13.1	15.7	10.4	31
August 2001	13.0	14.6	11.8	31	14.1	16.7	10.9	31
September 2001	14.9	15.8	13.8	30	12.9	15.4	10.1	30
October 2001	15.5	15.8	15.0	14	11.1	13.4	8.7	14

Month	Big Creek Upstream Powerhouse 1			
	Temperature (°C)			
	Average	Maximum	Minimum	Days Monitored
May 2000	11.2	15.5	7.1	6
June 2000	12.8	17.9	5.6	30
July 2000	13.1	17.7	8.8	31
August 2000	13.8	17.9	9.4	31
September 2000	11.2	15.2	7.6	30
October 2000	8.6	12.6	4.8	26
May 2001	9.4	15.7	2.0	31
June 2001	11.9	16.0	7.5	30
July 2001	13.9	17.8	10.3	31
August 2001	14.1	17.8	10.1	31
September 2001	12.2	15.9	9.2	30
October 2001	9.4	13.4	6.9	30

[1] Maximum temperature observed for the month
[2] Minimum temperature observed for the month

Table CAWG 5-177. Comparison of Daily Mean Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	12	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	18	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-178. Comparison of Daily Mean Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	11	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	4	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-179. Comparison of Daily Mean Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	9	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-180. Comparison of Daily Mean Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	13	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	11	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-181. Comparison of Daily Mean Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	1	0	0	0	0	0	25	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-182. Comparison of Daily Mean Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	1	0	0	0	0	0	25	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	3	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-183. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	17	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	8	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-184. Comparison of Daily Maximum Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	29	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	19	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by, Dam 4, and Dam 5.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-185. Comparison of Daily Maximum Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	12	0	0	0	0	0	30	30	57%
October 2000	24	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	3	0	0	0	0	0	30	30	27%
October 2001	10	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by, Dam 4, and Dam 5.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-186. Comparison of Daily Maximum Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	5	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	7	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by, Dam 4, and Dam 5.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-187. Comparison of Daily Maximum Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	25	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	13	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by, Dam 4, and Dam 5.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-188. Comparison of Daily Maximum Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	25	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	21	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	20	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by, Dam 4, and Dam 5.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-189. Big Creek Powerhouse 1 to Dam 1 - Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Big Creek Downstream of Dam 1			Big Creek Canyon		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	25	0	0	11
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	30	0	0	30
Mav 2001	0	0	13	0	0	13
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	14	0	0	14

Month	Big Creek Upstream of Powerhouse 1		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	0	0	6
June 2000	0	0	30
July 2000	0	0	31
August 2000	0	0	31
September 2000	0	0	30
October 2000	0	0	26
May 2001	0	0	31
June 2001	0	0	30
July 2001	0	0	31
August 2001	0	0	31
September 2001	0	0	30
October 2001	0	0	30

Table CAWG 5-190. Comparison of Daily Mean Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	3	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	7	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-191. Comparison of Daily Mean Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	1	0	0	0	0	0	31	31	17%
September 2000	28	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	8	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-192. Comparison of Daily Mean Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	1	0	0	0	0	0	31	31	17%
September 2000	7	0	0	0	0	0	30	30	57%
October 2000	10	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	2	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-193. Comparison of Daily Mean Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	7	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	19	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-194. Comparison of Daily Mean Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	5	0	0	0	0	0	30	30	27%
October 2001	5	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-195. Comparison of Daily Mean Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	7	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	18	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-196. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	1	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by, Dam 4, and Dam 5.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-197. Comparison of Daily Maximum Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	11	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	1	0	0	0	0	0	30	30	27%
October 2001	6	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-198. Comparison of Daily Maximum Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	1	0	0	0	0	0	30	30	57%
October 2000	1	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-199. Comparison of Daily Maximum Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	4	0	0	0	0	0	31	31	17%
September 2000	28	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	19	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-200. Comparison of Daily Maximum Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-201. Comparison of Daily Maximum Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Canyon Site, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	16	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	1	0	0	0	0	0	30	30	27%
October 2001	9	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-202. Comparison of Daily Mean Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	1	0	0	0	0	0	25	31	82%
May 2001	19	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	2	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-203. Comparison of Daily Mean Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	3	0	0	0	0	0	11	30	8%
July 2000	1	0	0	0	0	0	31	31	78%
August 2000	7	0	0	0	0	0	31	31	17%
September 2000	20	0	0	0	0	0	30	30	57%
October 2000	23	0	0	0	0	0	25	31	82%
May 2001	22	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	6	0	0	0	0	0	31	31	54%
August 2001	3	0	0	0	0	0	31	31	19%
September 2001	20	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-204. Comparison of Daily Mean Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	11	0	0	0	0	0	11	30	8%
July 2000	7	0	0	0	0	0	19	31	78%
August 2000	7	0	0	0	0	0	31	31	17%
September 2000	3	0	0	0	0	0	30	30	57%
October 2000	9	0	0	0	0	0	25	31	82%
May 2001	3	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	6	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-205. Comparison of Daily Mean Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	8	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	4	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	3	0	0	0	0	0	31	31	54%
August 2001	13	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-206. Comparison of Daily Mean Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	15	0	0	0	0	0	25	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	8	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-207. Comparison of Daily Mean Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	6	0	0	0	0	0	25	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	30	30	57%
October 2000	20	0	0	0	0	0	25	31	82%
May 2001	7	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	3	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-208. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	1	0	0	0	0	0	25	31	82%
May 2001	20	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by, Dam 4, and Dam 5.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-209. Comparison of Daily Maximum Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	1	0	0	0	0	0	31	31	17%
September 2000	18	0	0	0	0	0	30	30	57%
October 2000	23	0	0	0	0	0	25	31	82%
May 2001	16	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	4	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	4	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-210. Comparison of Daily Maximum Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	1	0	0	0	0	0	31	31	17%
September 2000	2	0	0	0	0	0	30	30	57%
October 2000	1	0	0	0	0	0	25	31	82%
May 2001	2	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	2	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-211. Comparison of Daily Maximum Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	7	0	0	0	0	0	31	31	17%
September 2000	27	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	1	0	0	0	0	0	31	31	54%
August 2001	24	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-212. Comparison of Daily Maximum Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	25	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	1	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-213. Comparison of Daily Maximum Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 1, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	1	0	0	0	0	0	25	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	2	0	0	0	0	0	30	30	57%
October 2000	16	0	0	0	0	0	25	31	82%
May 2001	5	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	4	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-214. Powerhouse 2 Forebay Tributaries – Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Big Creek Powerhouse 1 Tailrace				Tunnel 2 Intake			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	6.8	7.5	6.4	6	-	-	-	0
June 2000	8.2	10.1	6.8	30	-	-	-	0
July 2000	10.9	13.3	9.3	31	11.6	12.3	11.1	13
August 2000	13.0	14.3	11.6	31	13.0	14.2	11.8	31
September 2000	14.0	15.2	11.2	30	14.0	14.6	13.1	30
October 2000	14.1	15.4	13.0	16	13.4	15.3	3.3	26
May 2001	6.2	7.7	4.6	31	-	-	-	0
June 2001	8.8	11.0	7.1	30	10.4	11.0	9.9	4
July 2001	11.0	12.7	9.9	31	11.2	12.7	10.3	31
August 2001	12.5	14.2	11.1	31	12.7	14.0	11.3	31
September 2001	14.2	15.3	13.0	30	14.2	15.5	13.3	30
October 2001	15.1	16.1	14.4	3	14.6	15.7	13.0	30

Month	Pitman Diversion				Pitman Creek Upstream of Big Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	15.0	20.2	9.8	17	16.7	19.0	14.6	3
July 2000	15.3	21.7	9.5	31	14.4	18.5	10.4	31
August 2000	15.2	22.3	8.2	31	15.1	19.3	11.8	31
September 2000	10.3	16.8	5.4	30	11.4	14.7	8.5	30
October 2000	5.3	12.4	0.2	30	7.7	11.8	4.6	26
May 2001	9.0	16.0	3.2	13	11.0	17.1	4.0	31
June 2001	13.1	19.5	6.8	30	12.8	17.4	8.8	30
July 2001	15.8	21.7	10.9	31	15.1	19.2	11.3	31
August 2001	15.3	22.3	8.4	31	16.1	18.5	13.3	31
September 2001	11.2	17.3	5.3	30	13.3	16.3	10.7	30
October 2001	6.5	12.3	1.5	26	9.1	14.4	5.7	31

[1] Maximum temperature observed for the month
[2] Minimum temperature observed for the month

Table CAWG 5-215. Powerhouse 2 Forebay Tributaries - Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Big Creek Powerhouse 1 Tailrace			Tunnel 2 Intake		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	0	0	6	-	-	0
June 2000	0	0	30	-	-	0
July 2000	0	0	31	0	0	13
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	16	0	0	26
May 2001	0	0	31	-	-	0
June 2001	0	0	30	0	0	4
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	3	0	0	30

Month	Pitman Diversion			Pitman Creek Upstream of Big Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	-	-	0 (31)	-	-	0 (31)
June 2000	0	0	17 (30)	0	0	3 (30)
July 2000	0	0	31 (31)	0	0	31 (31)
August 2000	0	0	31 (4)	0	0	31 (4)
September 2000	0	0	30 (0)	0	0	30 (0)
October 2000	0	0	30 (5)	0	0	26 (5)
May 2001	0	0	13 (31)	0	0	31 (31)
June 2001	0	0	30 (30)	0	0	30 (30)
July 2001	0	0	31 (18)	0	0	31 (18)
August 2001	0	0	31 (0)	0	0	31 (0)
September 2001	0	0	30 (0)	0	0	30 (0)
October 2001	0	0	26 (0)	0	0	31 (0)

Table CAWG 5-216. Comparison of Daily Mean Temperatures: Pitman Creek Upstream of Diversion to Upstream of Big Creek Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	4	17%
September 2000	0	0	0	0	0	0	30	0	57%
October 2000	0	0	0	1	0	0	26	6	82%
May 2001	8	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	18	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	18	0	0	26	0	8%

[1] Months without monitoring are hatched.
[2] Pitman Creek is diverted by Pitman Diversion.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-217. Comparison of Daily Maximum Temperatures: Pitman Creek Upstream of Diversion to Upstream of Big Creek Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	4	17%
September 2000	0	0	0	0	0	0	30	0	57%
October 2000	0	0	0	1	0	0	26	6	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	18	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	3	0	0	26	0	8%

[1] Months without monitoring are hatched.
[2] Pitman Creek is impounded by Pitman Diversion Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-218. Big Creek Powerhouse 2 to Dam 4 – Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Big Creek Downstream of Dam 4				Big Creek Upstream of Balsam Creek			
	Temperature (°C)				Temperature (°C)			
	Average	Maximum	Minimum	Days Monitored	Average	Maximum	Minimum	Days Monitored
May 2000	-	-	-	0	8.7	12.3	7.3	6
June 2000	9.9	12.0	9.2	10	10.3	18.1	7.3	30
July 2000	12.8	16.6	9.8	31	15.0	20.3	9.9	31
August 2000	14.1	17.1	12.4	31	15.8	20.5	13.0	31
September 2000	13.9	16.0	12.1	30	14.0	16.5	12.7	5
October 2000	11.6	14.9	8.1	31	11.2	15.2	8.2	26
May 2001	12.1	18.2	7.3	31	13.0	20.0	7.9	31
June 2001	13.9	18.9	7.6	30	16.6	22.5	7.6	30
July 2001	17.2	21.0	15.0	31	20.3	24.2	17.1	31
August 2001	17.0	19.8	14.3	31	20.0	23.7	16.3	31
September 2001	15.3	17.6	13.8	30	16.5	19.9	13.5	30
October 2001	13.4	16.2	11.9	30	12.6	16.5	10.1	30

Month	Big Creek Upstream of Powerhouse 2			
	Temperature (°C)			
	Average	Maximum	Minimum	Days Monitored
May 2000	11.5	14.7	8.2	6
June 2000	12.9	19.0	7.6	30
July 2000	16.3	21.7	10.6	31
August 2000	16.9	22.8	13.3	31
September 2000	14.8	18.4	11.8	30
October 2000	11.4	14.9	8.2	26
May 2001	13.7	20.3	7.1	31
June 2001	16.4	20.8	8.5	30
July 2001	18.2	21.8	14.4	31
August 2001	18.5	21.7	15.1	31
September 2001	15.9	19.5	12.7	30
October 2001	12.8	16.5	10.3	31

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-219. Big Creek Powerhouse 2 to Dam 4 - Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Big Creek Downstream of Dam 4			Big Creek Upstream of Balsam Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	0	0	6
June 2000	0	0	10	0	0	30
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	5
October 2000	0	0	31	0	0	26
Mav 2001	0	0	31	0	0	31
June 2001	0	0	30	7	0	30
July 2001	0	0	31	31	2	31
August 2001	0	0	31	24	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	30	0	0	30

Month	Big Creek Upstream of Powerhouse 2		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	0	0	6
June 2000	0	0	30
July 2000	1	0	31
August 2000	1	0	31
September 2000	0	0	30
October 2000	0	0	26
Mav 2001	0	0	31
June 2001	0	0	30
July 2001	7	0	31
August 2001	10	0	31
September 2001	0	0	30
October 2001	0	0	31

Table CAWG 5-220. Comparison of Daily Mean Temperatures: Big Creek Upstream of Powerhouse 1 to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	1	0	0	0	0	0	31	31	17%
September 2000	16	0	0	0	0	0	30	30	57%
October 2000	24	0	0	0	0	0	26	31	82%
May 2001	23	0	0	0	0	0	31	31	2%
June 2001	17	0	0	0	0	0	30	30	17%
July 2001	22	0	0	0	0	0	31	31	54%
August 2001	20	0	0	0	0	0	31	31	19%
September 2001	23	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-221. Comparison of Daily Mean Temperatures: Pitman Creek Upstream of Powerhouse 1 to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	15	0	0	0	0	0	30	30	57%
October 2000	26	0	0	0	0	0	26	31	82%
May 2001	17	0	0	0	0	0	31	31	2%
June 2001	4	0	0	0	0	0	30	30	17%
July 2001	5	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	4	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-222. Comparison of Daily Mean Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	1	0	0	0	0	0	30	30	57%
October 2000	23	0	0	0	0	0	25	31	82%
May 2001	23	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	1	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	18	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-223. Comparison of Daily Mean Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	7	0	0	0	0	0	31	31	78%
August 2000	16	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	23	0	0	0	0	0	31	31	2%
June 2001	23	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-224. Comparison of Daily Mean Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	8	0	0	0	0	0	19	31	78%
August 2000	18	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	23	0	0	0	0	0	31	31	2%
June 2001	23	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-225. Comparison of Daily Mean Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	4	0	0	0	0	0	31	31	78%
August 2000	20	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	5	0	0	0	0	0	13	31	2%
June 2001	23	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-226. Comparison of Daily Mean Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	3	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	23	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-227. Comparison of Daily Mean Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	1	0	0	0	0	0	31	31	78%
August 2000	9	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	21	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-228. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Powerhouse 1 to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	9	0	0	0	0	0	30	30	57%
October 2000	12	0	0	0	0	0	26	31	82%
May 2001	20	0	0	0	0	0	31	31	2%
June 2001	14	0	0	0	0	0	30	30	17%
July 2001	22	0	0	0	0	0	31	31	54%
August 2001	11	0	0	0	0	0	31	31	19%
September 2001	14	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-229. Comparison of Daily Maximum Temperatures: Pitman Creek Upstream of Powerhouse 1 to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	12	0	0	0	0	0	30	30	57%
October 2000	26	0	0	0	0	0	26	31	82%
May 2001	7	0	0	0	0	0	31	31	2%
June 2001	1	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	14	0	0	0	0	0	30	30	27%
October 2001	27	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-230. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	7	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	16	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-231. Comparison of Daily Maximum Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	11	0	0	0	0	0	31	31	17%
September 2000	28	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	20	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	29	0	0	0	0	0	31	31	19%
September 2001	29	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-232. Comparison of Daily Maximum Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	3	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	30	30	57%
October 2000	23	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	20	0	0	0	0	0	30	30	17%
July 2001	21	0	0	0	0	0	31	31	54%
August 2001	1	0	0	0	0	0	31	31	19%
September 2001	3	0	0	0	0	0	30	30	27%
October 2001	21	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downsteam of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-233. Comparison of Daily Maximum Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	15	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	5	0	0	0	0	0	13	31	2%
June 2001	9	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-234. Comparison of Daily Maximum Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	4	0	0	0	0	0	30	30	17%
July 2001	5	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	26	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-235. Comparison of Daily Maximum Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 4, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	1	0	0	0	0	0	31	31	17%
September 2000	27	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	6	0	0	0	0	0	31	31	54%
August 2001	7	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-236. Comparison of Daily Mean Temperatures: Big Creek Upstream of Powerhouse 1 to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	6	31	21%
June 2000	0	0	0	0	0	0	30	30	8%
July 2000	10	0	0	0	0	0	31	31	78%
August 2000	12	0	0	0	0	0	31	31	17%
September 2000	2	0	0	0	0	0	5	30	57%
October 2000	9	0	0	0	0	0	26	31	82%
May 2001	23	0	0	0	0	0	31	31	2%
June 2001	24	0	7	0	0	0	30	30	17%
July 2001	31	0	31	0	0	0	31	31	54%
August 2001	31	0	24	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	27	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-237. Comparison of Daily Mean Temperatures: Pitman Creek Upstream of Powerhouse 1 to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	5	0	0	0	0	0	31	31	78%
August 2000	2	0	0	0	0	0	31	31	17%
September 2000	4	0	0	0	0	0	5	30	57%
October 2000	26	0	0	0	0	0	26	31	82%
May 2001	23	0	0	0	0	0	31	31	2%
June 2001	23	0	7	0	0	0	30	30	17%
July 2001	31	0	31	0	0	0	31	31	54%
August 2001	31	0	24	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-238. Comparison of Daily Mean Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	1	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	1	0	0	0	0	0	5	30	57%
October 2000	20	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	21	0	5	0	0	0	30	30	17%
July 2001	16	0	16	0	0	0	31	31	54%
August 2001	8	0	3	0	0	0	31	31	19%
September 2001	24	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-239. Comparison of Daily Mean Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	23	0	0	0	0	0	31	31	78%
August 2000	26	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	5	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	25	0	7	0	0	0	30	30	17%
July 2001	31	0	31	0	0	0	31	31	54%
August 2001	31	0	24	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-240. Comparison of Daily Mean Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	16	0	0	0	0	0	19	31	78%
August 2000	25	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	5	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	25	0	7	0	0	0	30	30	17%
July 2001	31	0	31	0	0	0	31	31	54%
August 2001	31	0	24	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-241. Comparison of Daily Mean Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	19	0	0	0	0	0	31	31	78%
August 2000	25	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	5	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	25	0	7	0	0	0	30	30	17%
July 2001	31	0	31	0	0	0	31	31	54%
August 2001	31	0	24	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-242. Comparison of Daily Mean Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	6	0	0	0	0	0	25	30	8%
July 2000	19	0	0	0	0	0	31	31	78%
August 2000	5	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	25	0	7	0	0	0	30	30	17%
July 2001	31	0	31	0	0	0	31	31	54%
August 2001	31	0	24	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-243. Comparison of Daily Mean Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	4	0	0	0	0	0	25	30	8%
July 2000	13	0	0	0	0	0	31	31	78%
August 2000	18	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	5	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	25	0	7	0	0	0	30	30	17%
July 2001	31	0	31	0	0	0	31	31	54%
August 2001	31	0	24	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-244. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Powerhouse 1 to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	6	31	21%
June 2000	0	0	0	0	0	0	30	30	8%
July 2000	13	0	0	0	0	0	31	31	78%
August 2000	17	0	0	0	0	0	31	31	17%
September 2000	1	0	0	0	0	0	5	30	57%
October 2000	6	0	0	0	0	0	26	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	24	0	0	0	0	0	30	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	29	0	0	0	0	0	30	30	27%
October 2001	23	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-245. Comparison of Daily Maximum Temperatures: Pitman Creek Upstream of Powerhouse 1 to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	5	0	0	0	0	0	31	31	78%
August 2000	5	0	0	0	0	0	31	31	17%
September 2000	4	0	0	0	0	0	5	30	57%
October 2000	24	0	0	0	0	0	26	31	82%
May 2001	23	0	0	0	0	0	31	31	2%
June 2001	23	0	0	0	0	0	30	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	22	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-246. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	5	30	57%
October 2000	2	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	2	0	0	0	0	0	30	30	17%
July 2001	5	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	17	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-247. Comparison of Daily Maximum Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	23	0	0	0	0	0	31	31	78%
August 2000	25	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	5	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-248. Comparison of Daily Maximum Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	16	0	0	0	0	0	19	31	78%
August 2000	18	0	0	0	0	0	31	31	17%
September 2000	4	0	0	0	0	0	5	30	57%
October 2000	17	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	30	0	0	0	0	0	31	31	19%
September 2001	13	0	0	0	0	0	30	30	27%
October 2001	11	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downsteam of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-249. Comparison of Daily Maximum Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	18	0	0	0	0	0	31	31	78%
August 2000	27	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	5	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	24	0	0	0	0	0	30	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-250. Comparison of Daily Maximum Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	25	30	8%
July 2000	14	0	0	0	0	0	31	31	78%
August 2000	2	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-251. Comparison of Daily Maximum Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Upstream of Balsam Creek, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	2	0	0	0	0	0	25	30	8%
July 2000	9	0	0	0	0	0	31	31	78%
August 2000	16	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	5	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	31	0	2	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-252. Comparison of Daily Mean Temperatures: Big Creek Upstream of Powerhouse 1 to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	6	31	21%
June 2000	1	0	0	0	0	0	30	30	8%
July 2000	19	0	1	0	0	0	31	31	78%
August 2000	21	0	1	0	0	0	31	31	17%
September 2000	27	0	0	0	0	0	30	30	57%
October 2000	12	0	0	0	0	0	26	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	31	0	7	0	0	0	31	31	54%
August 2001	31	0	10	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-253. Comparison of Daily Mean Temperatures: Pitman Creek Upstream of Powerhouse 1 to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	8	0	0	0	0	0	31	31	78%
August 2000	4	0	0	0	0	0	31	31	17%
September 2000	27	0	0	0	0	0	30	30	57%
October 2000	26	0	0	0	0	0	26	31	82%
May 2001	21	0	0	0	0	0	31	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	25	0	5	0	0	0	31	31	54%
August 2001	11	0	7	0	0	0	31	31	19%
September 2001	11	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-254. Comparison of Daily Mean Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	4	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	7	0	0	0	0	0	30	30	57%
October 2000	20	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	13	0	0	0	0	0	30	30	17%
July 2001	6	0	3	0	0	0	31	31	54%
August 2001	1	0	0	0	0	0	31	31	19%
September 2001	20	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-255. Comparison of Daily Mean Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	28	0	1	0	0	0	31	31	78%
August 2000	31	0	1	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	28	0	0	0	0	0	31	30	2%
June 2001	26	0	0	0	0	0	30	30	17%
July 2001	31	0	7	0	0	0	31	31	54%
August 2001	31	0	10	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-256. Comparison of Daily Mean Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	3	0	0	0	0	0	11	30	8%
July 2000	19	0	0	0	0	0	19	31	78%
August 2000	31	0	1	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	28	0	0	0	0	0	31	31	2%
June 2001	28	0	0	0	0	0	30	30	17%
July 2001	31	0	7	0	0	0	31	31	54%
August 2001	31	0	10	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-257. Comparison of Daily Mean Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	28	0	1	0	0	0	31	31	78%
August 2000	31	0	1	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	10	0	0	0	0	0	13	31	2%
June 2001	26	0	0	0	0	0	30	30	17%
July 2001	31	0	7	0	0	0	31	31	54%
August 2001	31	0	10	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-258. Comparison of Daily Mean Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	9	0	0	0	0	0	25	30	8%
July 2000	28	0	1	0	0	0	31	31	78%
August 2000	13	0	1	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	11	0	0	0	0	0	13	31	2%
June 2001	26	0	0	0	0	0	30	30	17%
July 2001	31	0	7	0	0	0	31	31	54%
August 2001	31	0	10	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-259. Comparison of Daily Mean Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	9	0	0	0	0	0	25	30	8%
July 2000	23	0	1	0	0	0	31	31	78%
August 2000	28	0	1	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	10	0	0	0	0	0	13	31	2%
June 2001	26	0	0	0	0	0	30	30	17%
July 2001	31	0	7	0	0	0	31	31	54%
August 2001	31	0	10	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-260. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Powerhouse 1 to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	6	31	21%
June 2000	0	0	0	0	0	0	30	30	8%
July 2000	26	0	0	0	0	0	31	31	78%
August 2000	26	0	0	0	0	0	31	31	17%
September 2000	21	0	0	0	0	0	30	30	57%
October 2000	5	0	0	0	0	0	26	31	82%
May 2001	22	0	0	0	0	0	31	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	28	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-261. Comparison of Daily Maximum Temperatures: Pitman Creek Upstream of Powerhouse 1 to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	12	0	0	0	0	0	31	31	78%
August 2000	10	0	0	0	0	0	31	31	17%
September 2000	27	0	0	0	0	0	30	30	57%
October 2000	26	0	0	0	0	0	26	31	82%
May 2001	17	0	0	0	0	0	31	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	24	0	0	0	0	0	31	31	54%
August 2001	21	0	0	0	0	0	31	31	19%
September 2001	27	0	0	0	0	0	30	30	27%
October 2001	26	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-262. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	2	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	4	0	0	0	0	0	30	30	17%
July 2001	3	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	17	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-263. Comparison of Daily Maximum Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	1	0	0	0	0	0	11	30	8%
July 2000	28	0	0	0	0	0	31	31	78%
August 2000	31	0	0	0	0	0	31	31	17%
September 2000	29	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	26	0	0	0	0	0	31	31	2%
June 2001	26	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	29	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-264. Comparison of Daily Maximum Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	16	0	0	0	0	0	19	31	78%
August 2000	29	0	0	0	0	0	31	31	17%
September 2000	27	0	0	0	0	0	30	30	57%
October 2000	20	0	0	0	0	0	25	31	82%
May 2001	24	0	0	0	0	0	31	31	2%
June 2001	26	0	0	0	0	0	30	30	17%
July 2001	30	0	0	0	0	0	31	31	54%
August 2001	15	0	0	0	0	0	31	31	19%
September 2001	10	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downsteam of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-265. Comparison of Daily Maximum Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	17	30	8%
July 2000	26	0	0	0	0	0	31	31	78%
August 2000	31	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	6	0	0	0	0	0	13	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-266. Comparison of Daily Maximum Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	6	0	0	0	0	0	25	30	8%
July 2000	26	0	0	0	0	0	31	31	78%
August 2000	10	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	8	0	0	0	0	0	13	31	2%
June 2001	26	0	0	0	0	0	30	30	17%
July 2001	22	0	0	0	0	0	31	31	54%
August 2001	19	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-267. Comparison of Daily Maximum Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 2, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	6	0	0	0	0	0	25	30	8%
July 2000	12	0	0	0	0	0	31	31	78%
August 2000	29	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	8	0	0	0	0	0	13	31	2%
June 2001	25	0	0	0	0	0	30	30	17%
July 2001	28	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-268. Big Creek Powerhouse 8 Forebay Tributaries - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Powerhouse 2 Tailrace				Powerhouse 2A Tailrace			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	11.3	11.8	11.0	3	12.5	13.2	12.1	3
July 2000	12.1	13.0	11.0	31	13.2	17.6	11.8	31
August 2000	13.7	14.6	12.9	31	14.5	18.0	13.2	31
September 2000	15.2	17.4	13.9	30	15.6	18.1	12.6	30
October 2000	15.7	17.4	14.2	26	16.4	18.0	8.6	26
May 2001	11.4	14.5	9.6	31	9.7	17.9	6.5	31
June 2001	13.0	15.8	11.1	30	10.0	16.9	8.1	30
July 2001	16.2	18.5	13.5	31	13.0	18.0	10.1	31
August 2001	17.6	19.0	15.0	31	14.3	17.9	11.8	31
September 2001	17.1	19.0	13.9	30	17.2	19.0	14.6	30
October 2001	16.9	19.0	13.9	31	16.8	19.0	11.5	31

Month	Tunnel 8 Intake			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	11.4	11.8	11.1	3
July 2000	12.2	13.2	11.2	31
August 2000	13.8	14.8	12.8	31
September 2000	15.4	17.9	14.0	30
October 2000	15.8	17.8	14.1	26
May 2001	7.0	8.9	5.8	31
June 2001	9.1	12.0	7.8	30
July 2001	11.4	14.0	10.3	31
August 2001	13.2	15.9	11.7	31
September 2001	15.9	17.6	13.8	30
October 2001	15.9	18.3	13.8	31

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-269. Big Creek Powerhouse 8 Forebay Tributaries – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Powerhouse 2 Tailrace			Powerhouse 2A Tailrace		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	3	0	0	3
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	26	0	0	26
May 2001	0	0	31	0	0	31
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	31	0	0	31

Month	Tunnel 8 Intake		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0
June 2000	0	0	3
July 2000	0	0	31
August 2000	0	0	31
September 2000	0	0	30
October 2000	0	0	26
May 2001	0	0	31
June 2001	0	0	30
July 2001	0	0	31
August 2001	0	0	31
September 2001	0	0	30
October 2001	0	0	31

Table CAWG 5-270. Big Creek Powerhouse 8 to Dam 5 – Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Big Creek Downstream of Dam 5				Big Creek Upstream of Powerhouse 8			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	12.0	13.1	11.3	3	18.8	21.9	15.8	10
July 2000	12.6	14.6	11.2	31	16.6	20.7	11.9	31
August 2000	14.1	15.9	13.1	31	17.6	21.2	14.0	31
September 2000	15.2	18.1	13.7	30	16.0	19.3	12.8	22
October 2000	15.4	17.8	13.8	26	-	-	-	0
May 2001	7.7	9.9	5.9	31	15.6	21.1	9.4	31
June 2001	9.7	12.2	7.7	30	17.5	22.1	13.5	30
July 2001	11.8	13.8	10.7	31	19.3	23.6	15.9	31
August 2001	13.5	15.4	11.8	31	19.1	23.4	15.4	31
September 2001	15.5	16.8	13.6	30	17.1	21.6	13.9	30
October 2001	15.2	17.3	13.2	31	13.8	18.8	10.9	31

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-271. Big Creek Drainage Powerhouse 8 to Dam 5 – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Big Creek Downstream of Dam 5			Big Creek Upstream of Powerhouse 8		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	3	4	0	10
July 2000	0	0	31	0	0	31
August 2000	0	0	31	3	0	31
September 2000	0	0	30	0	0	22
October 2000	0	0	26	-	-	0
May 2001	0	0	31	0	0	31
June 2001	0	0	30	3	0	30
July 2001	0	0	31	18	0	31
August 2001	0	0	31	19	0	31
September 2001	0	0	30	1	0	30
October 2001	0	0	31	0	0	31

Table CAWG 5-272. Comparison of Daily Mean Temperatures: Big Creek Upstream of Powerhouse 2 to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	5	0	0	0	0	0	30	30	57%
October 2000	21	0	0	0	0	0	26	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	5	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-273. Comparison of Daily Mean Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	12	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	13	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	18	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-274. Comparison of Daily Mean Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	20	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	13	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	8	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-275. Comparison of Daily Mean Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	4	0	0	0	0	0	19	31	78%
August 2000	17	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	4	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-276. Comparison of Daily Mean Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	22	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	11	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-277. Comparison of Daily Mean Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-278. Comparison of Daily Mean Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	7	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	25	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-279. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Powerhouse 2 to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	2	0	0	0	0	0	30	30	57%
October 2000	18	0	0	0	0	0	26	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-280. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	19	0	0	0	0	0	25	31	82%
May 2001	4	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	16	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-281. Comparison of Daily Maximum Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	4	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	23	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-282 Comparison of Daily Maximum Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	1	0	0	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	7	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-283. Comparison of Daily Maximum Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	13	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	11	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-284. Comparison of Daily Maximum Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	20	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-285. Comparison of Daily Maximum Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Downstream of Dam 5, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	3	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	30	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	13	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	22	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-286. Comparison of Daily Mean Temperatures: Big Creek Upstream of Powerhouse 2 to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	4	0	0	0	10	30	8%
July 2000	4	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	7	0	0	0	0	0	31	31	2%
June 2001	5	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-287. Comparison of Daily Mean Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	4	0	0	0	10	30	8%
July 2000	8	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	13	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	19	0	0	0	0	0	30	30	17%
July 2001	9	0	8	0	0	0	31	31	54%
August 2001	3	0	1	0	0	0	31	31	19%
September 2001	26	0	1	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-288. Comparison of Daily Mean Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	4	0	0	0	10	30	8%
July 2000	28	0	0	0	0	0	31	31	78%
August 2000	31	0	3	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	30	0	3	0	0	0	30	30	17%
July 2001	31	0	18	0	0	0	31	31	54%
August 2001	31	0	19	0	0	0	31	31	19%
September 2001	30	0	1	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-289. Comparison of Daily Mean Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	4	0	0	0	10	30	8%
July 2000	18	0	0	0	0	0	19	31	78%
August 2000	31	0	3	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	30	0	3	0	0	0	30	30	17%
July 2001	31	0	18	0	0	0	31	31	54%
August 2001	31	0	19	0	0	0	31	31	19%
September 2001	30	0	1	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-290. Comparison of Daily Mean Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	4	0	0	0	10	30	8%
July 2000	28	0	0	0	0	0	31	31	78%
August 2000	31	0	3	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	13	0	0	0	0	0	13	31	2%
June 2001	30	0	3	0	0	0	30	30	17%
July 2001	31	0	18	0	0	0	31	31	54%
August 2001	31	0	19	0	0	0	31	31	19%
September 2001	30	0	1	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-291. Comparison of Daily Mean Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	4	0	0	0	10	30	8%
July 2000	28	0	0	0	0	0	31	31	78%
August 2000	13	0	3	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	13	0	0	0	0	0	13	31	2%
June 2001	30	0	3	0	0	0	30	30	17%
July 2001	31	0	18	0	0	0	31	31	54%
August 2001	31	0	19	0	0	0	31	31	19%
September 2001	30	0	1	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-292. Comparison of Daily Mean Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	4	0	0	0	10	30	8%
July 2000	26	0	0	0	0	0	31	31	78%
August 2000	31	0	3	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	13	0	0	0	0	0	13	31	2%
June 2001	30	0	3	0	0	0	30	30	17%
July 2001	31	0	18	0	0	0	31	31	54%
August 2001	31	0	19	0	0	0	31	31	19%
September 2001	30	0	1	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-293. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Powerhouse 2 to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	10	30	8%
July 2000	3	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	9	0	0	0	0	0	31	31	2%
June 2001	5	0	0	0	0	0	30	30	17%
July 2001	1	0	0	0	0	0	31	31	54%
August 2001	1	0	0	0	0	0	31	31	19%
September 2001	1	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.

[2] Big Creek is impounded by Huntington Lake, Dam 1, Dam 4, and Dam 5 and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-294. Comparison of Daily Maximum Temperatures: Big Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	8	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	17	31	17%
September 2000	2	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	14	0	0	0	0	0	30	30	17%
July 2001	5	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	17	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-295. Comparison of Daily Maximum Temperatures: Rancheria Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	10	30	8%
July 2000	28	0	0	0	0	0	31	31	78%
August 2000	31	0	0	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-296. Comparison of Daily Maximum Temperatures: Potter Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	10	30	8%
July 2000	16	0	0	0	0	0	19	31	78%
August 2000	31	0	0	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-297. Comparison of Daily Maximum Temperatures: Coon Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	10	30	8%
July 2000	28	0	0	0	0	0	31	31	78%
August 2000	31	0	0	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	13	0	0	0	0	0	13	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	24	0	0	0	0	0	24	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-298. Comparison of Daily Maximum Temperatures: Line Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	10	30	8%
July 2000	27	0	0	0	0	0	31	31	78%
August 2000	13	0	0	0	0	0	13	31	17%
September 2000	0	0	0	0	0	0	0	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	13	0	0	0	0	0	13	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-299. Comparison of Daily Maximum Temperatures: Home Camp Creek Upstream of Huntington Lake to Big Creek Upstream of Powerhouse 8, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	10	0	0	0	0	0	10	30	8%
July 2000	19	0	0	0	0	0	31	31	78%
August 2000	31	0	0	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	22	30	57%
October 2000	0	0	0	0	0	0	0	31	82%
May 2001	13	0	0	0	0	0	13	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	31	0	0	0	0	0	31	31	19%
September 2001	30	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	14	31	8%

[1] Months without monitoring are hatched.
[2] Big Creek tributaries upstream of Huntington Lake are impounded by Huntington Lake throughout the year, but downstream of Huntington Lake Big Creek is impounded by Dam 4, and Dam 5.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-300. Balsam Creek – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Balsam Creek Downstream of Balsam Meadow Forebay			Balsam Creek Diversion		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	0	0	6
June 2000	0	0	30	0	0	30
July 2000	0	0	31	0	0	19
August 2000	0	0	31	0	0	16
September 2000	0	0	30	0	0	30
October 2000	0	0	25	0	0	26
May 2001	0	0	31	0	0	31
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	13	0	0	30
May 2002	0	0	7	0	0	7
June 2002	0	0	30	0	0	30
July 2002	0	0	31	0	0	31
August 2002	0	0	31	0	0	31
September 2002	0	0	30	0	0	30
October 2002	0	0	29	0	0	29

Table CAWG 5-300. Balsam Creek – Number of Days When Water Temperature Exceeded Daily Mean of 19°C or Daily Maximum of 24°C (cont).

Month	Balsam Creek Upstream of Big Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	0	0	6
June 2000	0	0	30
July 2000	0	0	31
August 2000	0	0	31
September 2000	0	0	30
October 2000	0	0	26
May 2001	0	0	31
June 2001	0	0	30
July 2001	0	0	31
August 2001	0	0	31
September 2001	0	0	30
October 2001	0	0	30
May 2002	0	0	7
June 2002	0	0	30
July 2002	0	0	31
August 2002	0	0	31
September 2002	0	0	30
October 2002	0	0	29

Table CAWG 5-301. Balsam Creek – Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Balsam Creek Downstream of Balsam Meadow Forebay				Balsam Creek Diversion			
	Temperature (°C)			Days	Temperature (°C)			Days
	Average	Maximum	Minimum	Monitored	Average	Maximum	Minimum	Monitored
May 2000	-	-	-	0	11.4	15.8	6.8	6
June 2000	10.2	12.1	8.1	30	12.6	18.4	5.7	30
July 2000	12.6	15.9	11.0	31	12.3	16.4	8.2	19
August 2000	16.2	17.6	14.9	31	12.4	15.6	8.7	16
September 2000	16.1	18.3	14.9	30	10.9	14.9	7.0	30
October 2000	14.6	18.1	11.5	25	8.3	12.1	5.0	26
May 2001	6.5	10.4	3.7	31	9.0	12.8	4.0	31
June 2001	11.7	14.9	9.0	30	10.5	13.3	8.4	30
July 2001	15.0	16.2	14.0	31	13.3	16.8	10.7	31
August 2001	16.4	17.9	15.4	31	13.6	17.2	10.1	31
September 2001	17.0	19.1	15.9	30	11.5	15.5	8.8	30
October 2001	15.6	17.1	14.4	13	8.8	12.7	6.7	30
May 2002	8.5	10.0	7.2	7	10.7	15.6	6.3	7
June 2002	11.5	13.4	9.0	30	12.3	17.8	7.8	30
July 2002	13.9	15.4	12.1	31	14.8	18.9	10.6	31
August 2002	14.9	17.0	13.8	31	12.9	16.7	8.7	31
September 2002	16.1	17.5	14.9	30	11.3	14.9	7.3	30
October 2002	13.4	14.9	11.7	29	7.4	10.7	4.4	29

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-301. Balsam Creek – Monthly Mean, Maximum[1], and Minimum[2] Temperatures (cont).

Month	Balsam Creek Upstream of Big Creek			
	Temperature (°C)			Days
	Average	Maximum	Minimum	Monitored
May 2000	12.2	18.1	7.9	6
June 2000	13.4	19.6	5.9	30
July 2000	13.6	18.8	9.3	31
August 2000	14.1	19.7	9.5	31
September 2000	11.2	15.2	7.6	30
October 2000	8.4	12.3	5.3	26
May 2001	10.7	16.8	2.8	31
June 2001	12.7	17.6	7.9	30
July 2001	14.9	20.0	11.5	31
August 2001	14.6	19.4	10.9	31
September 2001	12.2	16.8	9.2	30
October 2001	9.4	14.0	6.7	30
May 2002	12.7	18.2	8.3	7
June 2002	14.3	20.3	10.3	30
July 2002	16.5	21.6	12.3	31
August 2002	14.2	19.7	10.1	31
September 2002	12.5	17.1	8.9	30
October 2002	8.4	11.8	5.0	29

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-302. Comparison of Daily Mean Temperatures: Balsam Creek at Diversion Dam to Upstream of Big Creek Confluence, 2000-2002. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	6	0	21%
June 2000	0	0	0	0	0	0	30	0	8%
July 2000	0	0	0	0	0	0	19	0	78%
August 2000	0	0	0	0	0	0	16	0	17%
September 2000	0	0	0	0	0	0	30	0	58%
October 2000	0	0	0	0	0	0	26	0	83%
May 2001	0	0	0	2	0	0	31	0	2%
June 2001	0	0	0	5	0	0	30	0	17%
July 2001	0	0	0	3	0	0	31	0	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	0	0	0	30	0	8%

Table CAWG 5-302. Comparison of Daily Mean Temperatures: Balsam Creek at Diversion Dam to Upstream of Big Creek Confluence, 2000-2002. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C (cont).

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2002	0	0	0	0	0	0	7	13	70%
June 2002	0	0	0	0	0	0	30	30	19%
July 2002	0	0	0	0	0	0	31	31	13%
August 2002	0	0	0	0	0	0	31	31	70%
September 2002	0	0	0	0	0	0	30	30	31%
October 2002	0	0	0	0	0	0	29	31	52%

[1] Months without monitoring are hatched.
[2] Balsam Creek is impounded by Balsam Meadow Forebay Dam and Balsam Diversion Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-303. Comparison of Daily Maximum Temperatures: Balsam Creek at Diversion Dam to Upstream of Big Creek Confluence, 2000-2002. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	6	0	21%
June 2000	0	0	0	0	0	0	30	0	8%
July 2000	0	0	0	0	0	0	19	0	78%
August 2000	0	0	0	0	0	0	16	0	17%
September 2000	0	0	0	0	0	0	30	0	58%
October 2000	0	0	0	0	0	0	26	0	83%
May 2001	0	0	0	23	0	0	31	0	2%
June 2001	0	0	0	23	0	0	30	0	17%
July 2001	0	0	0	11	0	0	31	0	54%
August 2001	0	0	0	0	0	0	31	0	19%
September 2001	0	0	0	0	0	0	30	0	27%
October 2001	0	0	0	0	0	0	30	0	8%

Table CAWG 5-303. Comparison of Daily Maximum Temperatures: Balsam Creek at Diversion Dam to Upstream of Big Creek Confluence, 2000-2002. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C (cont).

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2002	5	0	0	0	0	0	7	13	70%
June 2002	24	0	0	0	0	0	30	30	19%
July 2002	18	0	0	0	0	0	31	31	13%
August 2002	12	0	0	0	0	0	31	31	70%
September 2002	0	0	0	0	0	0	30	30	31%
October 2002	0	0	0	0	0	0	29	31	52%

[1] Months without monitoring are hatched.
[2] Balsam Creek is impounded by Balsam Meadow Forebay Dam and Balsam Diversion Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-304. Sheepthief Creek and Ordinance Creek – Monthly Mean, Maximum[1], and Minimum[2] Temperatures,

Month	Sheepthief Creek				Ordinance Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	14.0	19.1	8.9	6
June 2000	11.7	15.5	9.0	17	15.5	21.5	7.0	30
July 2000	10.7	15.2	7.3	31	15.7	21.0	10.4	31
August 2000	11.2	15.5	7.7	31	16.7	21.7	11.5	25
September 2000	9.7	13.6	6.5	30	14.0	18.8	9.4	30
October 2000	7.9	11.8	4.6	25	11.1	16.0	6.6	26
May 2001	8.9	14.2	3.4	31	13.2	19.5	4.4	31
June 2001	9.9	14.2	6.5	30	14.5	19.9	8.9	30
July 2001	11.3	18.3	8.0	31	17.0	21.8	12.7	31
August 2001	11.6	18.7	7.6	31	17.3	21.2	13.2	31
September 2001	10.2	13.6	7.6	30	15.3	19.2	11.3	30
October 2001	8.5	12.4	5.9	27	12.4	17.6	8.2	31

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-305. Sheepthief Creek and Ordinance Creek – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Sheepthief Creek			Ordinance Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	0	0	6
June 2000	0	0	17	0	0	30
July 2000	0	0	31	0	0	31
August 2000	0	0	31	3	0	25
September 2000	0	0	30	0	0	30
October 2000	0	0	25	0	0	26
May 2001	0	0	31	0	0	31
June 2001	0	0	30	0	0	30
July 2001	0	0	31	3	0	31
August 2001	0	0	31	1	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	27	0	0	31

Table CAWG 5-306. Big Creek Drainage Ely Creek – Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Ely Creek Diversion				Ely Creek Upstream of Big Creek			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	12.6	16.2	8.6	6	-	-	-	0
June 2000	13.5	18.6	6.1	30	15.3	17.6	13.7	3
July 2000	13.7	18.2	8.9	31	14.0	19.6	10.6	31
August 2000	14.2	19.2	9.9	31	15.3	20.4	11.1	31
September 2000	10.4	13.2	7.6	30	12.2	16.8	9.2	30
October 2000	7.0	10.1	3.9	26	9.4	13.5	6.7	26
May 2001	11.4	16.6	3.4	31	10.7	14.8	5.4	31
June 2001	12.8	18.0	8.0	30	12.7	17.7	9.4	30
July 2001	15.2	20.0	11.8	31	14.8	21.1	11.6	31
August 2001	14.9	20.0	10.0	5	16.3	25.7	12.0	17
September 2001	-	-	-	0	13.7	25.2	10.3	30
October 2001	-	-	-	0	10.9	16.4	8.8	31

[1] Maximum temperature observed for the month.

[2] Minimum temperature observed for the month.

Table CAWG 5-307. Comparison of Daily Mean Temperatures: Ely Creek at Diversion to Upstream of Big Creek Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	0	21%
June 2000	0	0	0	0	0	0	3	0	8%
July 2000	0	0	0	0	0	0	31	0	78%
August 2000	0	0	0	0	0	0	31	0	17%
September 2000	0	0	0	0	0	0	30	0	57%
October 2000	0	0	0	1	0	0	26	0	82%
May 2001	0	0	0	0	0	0	31	0	2%
June 2001	0	0	0	0	0	0	30	0	17%
July 2001	0	0	0	0	0	0	31	0	54%
August 2001	0	0	0	0	0	0	2	0	19%
September 2001	0	0	0	0	0	0	0	0	27%
October 2001	0	0	0	0	0	0	0	0	8%

[1] Months without monitoring are hatched.

[2] Ely Creek is diverted by Ely Diversion.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-308. Comparison of Daily Maximum Temperatures: Ely Creek at Diversion to Upstream of Big Creek Confluence, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	0	21%
June 2000	0	0	0	0	0	0	3	0	8%
July 2000	0	0	0	0	0	0	31	0	78%
August 2000	0	0	0	0	0	0	31	0	17%
September 2000	0	0	0	13	0	0	30	0	57%
October 2000	0	0	0	7	0	0	26	0	82%
May 2001	0	0	0	0	0	0	31	0	2%
June 2001	0	0	0	0	0	0	30	0	17%
July 2001	0	0	0	0	0	0	31	0	54%
August 2001	0	0	0	0	0	0	2	0	19%
September 2001	0	0	0	0	0	0	0	0	27%
October 2001	0	0	0	0	0	0	0	0	8%

[1] Months without monitoring are hatched.
[2] Ely Creek is impounded by Ely Diversion Dam.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-309. Ely Creek – Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Ely Creek Diversion			Ely Creek Upstream of Big Creek		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored (days diversion in operation)
May 2000	0	0	6 (0)	-	-	0 (0)
June 2000	0	0	30 (0)	0	0	3 (0)
July 2000	0	0	31 (0)	0	0	31 (0)
August 2000	0	0	31 (0)	0	0	31 (0)
September 2000	0	0	30 (0)	0	0	30 (0)
October 2000	0	0	26 (0)	0	0	26 (0)
May 2001	0	0	31 (0)	0	0	31 (0)
June 2001	0	0	30 (0)	0	0	30 (0)
July 2001	0	0	31 (0)	0	0	31 (0)
August 2001	0	0	5 (0)	0	3	17 (0)
September 2001	-	-	0 (0)	0	1	30 (0)
October 2001	-	-	0 (0)	0	0	31 (0)

Table CAWG 5-310. Shaver Lake Tributaries - Monthly Mean, Maximum[1], and Minimum[2] Temperatures.

Month	Stevenson Creek Upstream of Shaver Lake				Eastwood Powerhouse Tailrace			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	14.1	17.1	11.5	11	15.3	21.5	12.1	11
July 2000	13.2	17.8	9.8	31	17.2	22.7	13.3	31
August 2000	13.8	18.4	9.6	31	20.5	23.2	17.3	31
September 2000	10.4	16.5	4.3	30	19.1	20.5	17.6	30
October 2000	7.2	10.4	4.0	25	17.6	19.5	14.1	21
May 2001	11.0	14.3	7.6	10	12.0	18.4	5.6	31
June 2001	-	-	-	0	15.5	21.0	11.1	30
July 2001	12.7	15.8	10.6	21	19.9	23.0	16.2	31
August 2001	13.1	16.5	9.6	31	21.6	23.7	18.8	31
September 2001	10.7	15.7	7.9	30	20.2	22.2	17.5	30
October 2001	7.8	11.5	5.3	31	17.9	19.7	14.8	26

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-311. Shaver Lake Tributaries - Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Stevenson Creek Upstream of Shaver Lake			Eastwood Powerhouse Tailrace		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	0	0	0	0	0	0
June 2000	0	0	11	0	0	11
July 2000	0	0	31	8	0	31
August 2000	0	0	31	31	0	31
September 2000	0	0	30	15	0	30
October 2000	0	0	25	0	0	21
Mav 2001	0	0	10	0	0	31
June 2001	-	-	0	0	0	30
July 2001	0	0	21	27	0	31
August 2001	0	0	31	31	0	31
September 2001	0	0	30	28	0	30
October 2001	0	0	31	6	0	26

Table CAWG 5-312. North Fork Stevenson Creek Drainage - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures.

Month	Downstream of Tunnel 7				Upstream of Shaver Lake			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	12.8	15.9	10.7	11	14.3	21.2	5.9	30
July 2000	15.0	17.8	11.8	31	15.1	20.7	9.8	31
August 2000	16.4	19.1	14.1	31	15.3	21.0	9.9	31
September 2000	15.6	17.0	14.9	30	13.1	18.1	8.4	30
October 2000	13.6	15.6	11.2	30	10.4	16.6	6.4	25
May 2001	7.7	10.1	6.0	13	9.2	17.9	2.1	31
June 2001	10.6	12.7	7.7	30	13.5	19.4	8.1	30
July 2001	12.6	14.4	10.7	31	15.1	20.3	10.7	31
August 2001	14.7	16.3	13.0	31	15.6	20.3	10.9	31
September 2001	16.6	17.5	15.2	30	14.1	18.7	10.2	30
October 2001	15.8	16.3	15.0	14	10.8	16.0	6.7	26

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-313. Comparison of Daily Mean Temperatures: North Fork Stevenson Creek Downstream of Tunnel 7 to North Fork Stevenson Creek Upstream of Shaver Lake, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	26	0	0	0	0	0	30	30	8%
July 2000	12	0	0	0	0	0	31	31	78%
August 2000	4	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	25	31	82%
May 2001	27	0	0	0	0	0	31	31	2%
June 2001	17	0	0	0	0	0	30	30	17%
July 2001	13	0	0	0	0	0	31	31	54%
August 2001	2	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	27	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.
[2] Stevenson and NF Stevenson Creeks are impounded by Shaver Lake Dam and are diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.
Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-314. Comparison of Daily Maximum Temperatures: North Fork Stevenson Creek Downstream of Tunnel 7 to North Fork Stevenson Creek Upstream of Shaver Lake, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	30	0	0	0	0	0	30	30	8%
July 2000	31	0	0	0	0	0	31	31	78%
August 2000	22	0	0	0	0	0	31	31	17%
September 2000	2	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	25	31	82%
May 2001	31	0	0	0	0	0	31	31	2%
June 2001	30	0	0	0	0	0	30	30	17%
July 2001	31	0	0	0	0	0	31	31	54%
August 2001	22	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	27	30	27%
October 2001	0	0	0	0	0	0	0	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson and NF Stevenson Creeks are impounded by Shaver Lake Dam and are diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-315. North Fork Stevenson Creek Downstream of Tunnel 7 Outlet and Upstream of Shaver Lake - Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Downstream of Tunnel 7			Upstream of Shaver Lake		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	-	-	0	-	-	0
June 2000	0	0	30	0	0	30
July 2000	0	0	31	0	0	31
August 2000	0	0	31	0	0	31
September 2000	0	0	30	0	0	30
October 2000	0	0	25	0	0	25
May 2001	0	0	31	0	0	31
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	27	0	0	30
October 2001	-	-	0	0	0	26

Table CAWG 5-316. Stevenson Creek Downstream of Shaver Lake to San Joaquin River Confluence - Monthly Mean, Maximum[1], and Minimum[2] Water Temperatures

Month	Stevenson Creek Downstream of Shaver Lake				Stevenson Creek Railroad Grade			
	Temperature (°C)			Days Monitored	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum		Average	Maximum	Minimum	
May 2000	-	-	-	0	-	-	-	0
June 2000	10.5	11.8	8.8	30	12.8	17.6	9.8	22
July 2000	11.7	12.4	11.2	31	14.0	17.1	10.7	19
August 2000	12.7	13.4	12.1	31	14.2	16.9	11.3	21
September 2000	13.8	14.7	13.0	30	12.9	16.0	10.1	30
October 2000	15.1	15.7	14.3	26	11.2	14.1	8.5	28
May 2001	6.7	7.8	5.6	31	11.8	16.4	5.4	31
June 2001	8.1	9.7	7.0	30	13.1	17.2	9.0	30
July 2001	9.7	10.7	8.7	31	14.8	18.7	11.9	31
August 2001	11.4	12.9	10.1	31	14.8	18.0	11.6	31
September 2001	13.6	14.9	12.3	30	13.5	16.6	11.1	30
October 2001	15.0	15.4	14.5	26	11.7	15.2	9.6	30

Month	Stevenson Creek Upstream of San Joaquin River			
	Temperature (°C)			Days Monitored
	Average	Maximum	Minimum	
May 2000	-	-	-	0
June 2000	16.8	20.6	13.8	10
July 2000	15.9	21.0	11.3	31
August 2000	16.0	21.1	11.0	31
September 2000	13.6	18.2	9.6	30
October 2000	10.9	15.7	6.1	28
May 2001	14.3	19.8	5.6	31
June 2001	14.8	20.1	10.0	30
July 2001	16.9	21.9	12.8	31
August 2001	16.5	20.4	12.6	31
September 2001	14.4	18.5	11.2	30
October 2001	11.6	16.2	8.8	31

[1] Maximum temperature observed for the month

[2] Minimum temperature observed for the month

Table CAWG 5-317. Stevenson Creek Downstream of Shaver Lake to San Joaquin River Confluence - Number of Days When Water Temperatures Exceeded Daily Mean of 19°C or Daily Maximum of 24°C.

Month	Stevenson Creek Downstream of Shaver Lake			Stevenson Creek Railroad Grade		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	0	0	0	0	0	0
June 2000	0	0	30	0	0	22
July 2000	0	0	31	0	0	19
August 2000	0	0	31	0	0	21
September 2000	0	0	30	0	0	30
October 2000	0	0	26	0	0	28
May 2001	0	0	31	0	0	31
June 2001	0	0	30	0	0	30
July 2001	0	0	31	0	0	31
August 2001	0	0	31	0	0	31
September 2001	0	0	30	0	0	30
October 2001	0	0	26	0	0	30

Month	Stevenson Creek Upstream of San Joaquin River		
	Daily Mean >19°C	Daily Maximum >24°C	Days Monitored
May 2000	0	0	0
June 2000	0	0	10
July 2000	0	0	31
August 2000	3	0	31
September 2000	0	0	30
October 2000	0	0	28
May 2001	0	0	31
June 2001	0	0	30
July 2001	6	0	31
August 2001	0	0	31
September 2001	0	0	30
October 2001	0	0	31

Table CAWG 5-318. Comparison of Daily Mean Temperatures: North Fork Stevenson Creek Upstream of Shaver Lake to Stevenson Creek Downstream of Shaver Lake Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	30	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	1	0	0	0	0	0	30	30	57%
October 2000	17	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	21	0	0	0	0	0	26	31	8%

[1] Months without monitoring are hatched.
[2] Stevenson and NF Stevenson Creeks are impounded by Shaver Lake Dam and are diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-319. Comparison of Daily Mean Temperatures: Stevenson Creek Upstream of Shaver Lake to Stevenson Creek Downstream of Shaver Lake Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	18	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	10	31	2%
June 2001	0	0	0	0	0	0	0	30	17%
July 2001	0	0	0	0	0	0	21	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	18	0	0	0	0	0	30	30	27%
October 2001	26	0	0	0	0	0	26	31	8%

[1] Months without monitoring are hatched.
[2] Stevenson Creek is impounded by Shaver Lake Dam and is diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-320. Comparison of Daily Maximum Temperatures: North Fork Stevenson Creek Upstream of Shaver Lake to Stevenson Creek Downstream of Shaver Lake Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	30	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	16	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	14	0	0	0	0	0	26	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson and NF Stevenson Creeks are impounded by Shaver Lake Dam and are diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-321. Comparison of Daily Maximum Temperatures: Stevenson Creek Upstream of Shaver Lake to Stevenson Creek Downstream of Shaver Lake Dam, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	8	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	10	31	2%
June 2001	0	0	0	0	0	0	0	30	17%
July 2001	0	0	0	0	0	0	21	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	6	0	0	0	0	0	30	30	27%
October 2001	26	0	0	0	0	0	26	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson Creek is impounded by Shaver Lake Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-322. Comparison of Daily Mean Temperatures: North Fork Stevenson Creek Upstream of Shaver Lake to Stevenson Creek at Railroad Grade, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	22	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	25	31	82%
May 2001	15	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	26	31	8%

[1] Months without monitoring are hatched.
[2] Stevenson and NF Stevenson Creeks are impounded by Shaver Lake Dam and are diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-323. Comparison of Daily Mean Temperatures: Stevenson Creek Upstream of Shaver Lake to Stevenson Creek at Railroad Grade, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	11	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	10	31	2%
June 2001	0	0	0	0	0	0	0	30	17%
July 2001	0	0	0	0	0	0	21	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	17	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson Creek is impounded by Shaver Lake Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-324. Comparison of Daily Maximum Temperatures: North Fork Stevenson Creek Upstream of Shaver Lake to Stevenson Creek at Railroad Grade, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	22	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	25	31	82%
May 2001	3	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	0	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	26	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson and NF Stevenson Creeks are impounded by Shaver Lake Dam and are diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-325. Comparison of Daily Maximum Temperatures: Stevenson Creek Upstream of Shaver Lake to Stevenson Creek at Railroad Grade, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	11	30	8%
July 2000	0	0	0	0	0	0	19	31	78%
August 2000	0	0	0	0	0	0	21	31	17%
September 2000	7	0	0	0	0	0	30	30	57%
October 2000	25	0	0	0	0	0	25	31	82%
May 2001	0	0	0	0	0	0	10	31	2%
June 2001	0	0	0	0	0	0	0	30	17%
July 2001	1	0	0	0	0	0	21	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	3	0	0	0	0	0	30	30	27%
October 2001	27	0	0	0	0	0	30	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson Creek is impounded by Shaver Lake Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-326. Comparison of Daily Mean Temperatures: North Fork Stevenson Creek Upstream of Shaver Lake to Stevenson Creek Upstream of San Joaquin River, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	1	0	1	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	25	31	82%
May 2001	28	0	0	0	0	0	31	31	2%
June 2001	1	0	0	0	0	0	30	30	17%
July 2001	5	0	5	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	26	31	8%

[1] Months without monitoring are hatched.
[2] Stevenson and NF Stevenson Creeks are impounded by Shaver Lake Dam and are diverted throughout the summer.
[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-327. Comparison of Daily Mean Temperatures: Stevenson Creek Upstream of Shaver Lake to Stevenson Creek Upstream of San Joaquin River, 2000-2001. Identification of Temperature Increases >5°F and Daily Mean Temperatures that Exceed 19°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C	Total >5°F	Days Upstream Site >19°C	Days Downstream Site >19°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	5	0	0	0	0	0	10	30	8%
July 2000	14	0	0	0	0	0	31	31	78%
August 2000	5	0	3	0	0	0	31	31	17%
September 2000	22	0	0	0	0	0	30	30	57%
October 2000	22	0	0	0	0	0	25	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	0	0	0	0	0	0	0	30	17%
July 2001	17	0	0	0	0	0	21	31	54%
August 2001	28	0	0	0	0	0	31	31	19%
September 2001	29	0	0	0	0	0	30	30	27%
October 2001	31	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson Creek is impounded by Shaver Lake Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-328. Comparison of Daily Maximum Temperatures: North Fork Stevenson Creek Upstream of Shaver Lake to Stevenson Creek Upstream of San Joaquin River, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	0	0	0	0	0	0	10	30	8%
July 2000	0	0	0	0	0	0	31	31	78%
August 2000	0	0	0	0	0	0	31	31	17%
September 2000	0	0	0	0	0	0	30	30	57%
October 2000	0	0	0	0	0	0	25	31	82%
May 2001	22	0	0	0	0	0	31	31	2%
June 2001	0	0	0	0	0	0	30	30	17%
July 2001	3	0	0	0	0	0	31	31	54%
August 2001	0	0	0	0	0	0	31	31	19%
September 2001	0	0	0	0	0	0	30	30	27%
October 2001	0	0	0	0	0	0	26	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson and NF Stevenson Creeks are impounded by Shaver Lake Dam and are diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-329. Comparison of Daily Maximum Temperatures: Stevenson Creek Upstream of Shaver Lake to Stevenson Creek Upstream of San Joaquin River, 2000-2001. Identification of Temperature Increases >5°F and Daily Maximum Temperatures that Exceed 24°C.

Month	Days Diverted with Increases >5°F			Days Not Diverted with Increases >5°F			Days Monitored[1]	Days Diverted[2]	Air Temperature Exceedance[3]
	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C	Total >5°F	Days Upstream Site >24°C	Days Downstream Site >24°C			
May 2000	0	0	0	0	0	0	0	31	21%
June 2000	6	0	0	0	0	0	10	30	8%
July 2000	9	0	0	0	0	0	31	31	78%
August 2000	3	0	0	0	0	0	31	31	17%
September 2000	16	0	0	0	0	0	30	30	57%
October 2000	24	0	0	0	0	0	25	31	82%
May 2001	10	0	0	0	0	0	10	31	2%
June 2001	0	0	0	0	0	0	0	30	17%
July 2001	21	0	0	0	0	0	21	31	54%
August 2001	20	0	0	0	0	0	31	31	19%
September 2001	23	0	0	0	0	0	30	30	27%
October 2001	30	0	0	0	0	0	31	31	8%

[1] Months without monitoring are hatched.

[2] Stevenson Creek is impounded by Shaver Lake Dam and is diverted throughout the summer.

[3] Historical Monthly Air Temperature Exceedance Percentages (1948-2001) based on North Fork, CA data.

Table CAWG 5-330. Monthly Mean, Maximum, and Minimum Water Temperatures Recorded for Over-Wintering Temperature Data Logger, Bear Creek Downstream of Bear Creek Diversion, 2001 to 2002.

Month	Bear Creek Downstream of Bear Creek Diversion		
	Mean[a] (°C)	Maximum[b] (°C)	Minimum[c] (°C)
2001			
November	3.4	6.3	0.1
December	0.2	0.3	0.1
2002			
January	0.2	0.9	0.1
February	0.6	2.3	0.1
March	1.5	5.3	0.1
April	3.8	7.3	0.3

[a] Monthly averages are calculated by averaging daily averages
[b] Maximum temperatures observed during month
[c] Minimum temperatures observed during month

Note: North Fork Stevenson Creek Flows are Augmented by Releases from Tunnel 7.

Table CAWG 5-331. Monthly Mean, Maximum, and Minimum Water Temperatures Recorded for Over-Wintering Temperature Data Logger, Mono Creek Downstream of Mono Creek Diversion, 2001 to 2002.

Month	Mono Creek Downstream of Mono Creek Diversion		
	Mean[a] (°C)	Maximum[b] (°C)	Minimum[c] (°C)
2001			
November	7.2	9.6	4.1
December	2.9	4.2	1.6
2002			
January	2.9	3.8	1.9
February	3.4	4.7	2.3
March	3.8	5.5	2.8
April	5.2	7.2	3.8

[a] Monthly averages are calculated by averaging daily averages
[b] Maximum temperatures observed during month
[c] Minimum temperatures observed during month

Table CAWG 5-332. Monthly Mean, Maximum, and Minimum Water Temperatures Recorded for Over-Wintering Temperature Data Logger, Camp 61 Creek Downstream of Portal Forebay, 2001 to 2002.

Month	Camp 61 Creek Downstream of Portal Forebay		
	Mean[a] (°C)	Maximum[b] (°C)	Minimum[c] (°C)
2001			
October	6.4	9.0	4.3
November	2.6	5.7	0.2
December	0.8	1.6	0.2
2002			
January	0.8	2.0	0.4
February	1.1	2.6	0.4
March	1.5	4.3	0.5
April	4.5	9.4	0.8
May	8.0	14.8	1.8

[a]Monthly averages are calculated by averaging daily averages
[b]Maximum temperatures observed during month
[c]Minimum temperatures observed during month

Table CAWG 5-333. Summary of Mean Temperature Comparisons for the South Fork San Joaquin River[4].

					SFSJR Upstream of Florence Lake Vs.[2]				Boulder Creek Upstream of Florence Lake Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[3]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[3]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SFSJR Upstream of Florence Lake (RM 30.6)	114	76	0	0								
Boulder Creek Upstream of Florence Lake (RM 0.10)	107	146	0	0								
SFSJR Downstream of Florence Lake Dam (RM 27.85)	102	130	0	0	4	7	0	0	0	30	0	0
SFSJR Downstream of Jackass Meadow (RM 26.15)	138	137	0	0	42	4	0	0	34	30	0	0
SFSJR Upstream of Hooper Creek (RM 24.70)	132	137	0	0	30	1	0	0	34	28	0	0
SFSJR Upstream of Crater Creek (RM 23.60)	141	175	0	0	34	25	0	0	45	57	0	0
SFSJR Upstream of Bear Creek (RM 22.35)	106	166	0	0	15	30	0	0	36	76	0	0
SFSJR Upstream of Mono Hot Springs (RM 20.90)	152	122	0	0	27	5	0	0	76	95	0	0
SFSJR Upstream of Camp 62 Creek Confluence (RM 20.20)	152	155	0	2	35	52	0	0	86	143	0	2
SFSJR Upstream of Bolsillo Creek Confluence (RM 19.65)	152	155	0	6	37	56	0	2	88	143	0	6
SFSJR Upstream of Camp 61 Creek Confluence (RM 17.90)	127	148	3	28	41	54	1	9	81	137	3	28
SFSJR Upstream of Mono Creek Confluence (RM 16.65)	127	154	4	30	45	60	2	11	81	142	4	30
SFSJR Upstream of Warm Creek Confluence (RM 15.95)	0	133	0	5	0	35	0	0	0	120	0	5
SFSJR Upstream of Rattlesnake Creek Confluence (RM 14.55)	83	177	0	16	23	62	0	3	60	145	0	16
SFSJR Upstream of Hoffman Creek Confluence (RM 8.55)	85	178	0	9	22	61	0	1	40	145	0	9
SFSJR Upstream of SJR Confluence (RM 0.10) (Length of Bypass Reach)	83	184	6	57	74	76	6	22	44	146	3	57

[1] Florence Lake was diverted for 184 days in 2000 and 2001

[2] SFSJR Upstream of Florence Lake logged fewer days than Boulder Creek and SFSJR Downstream of Florence Lake

[3] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[4] Hardhead not present in this reach.

Table CAWG 5-334. Summary of Maximum Temperature Comparisons for the South Fork San Joaquin River[4].

					SFSJR Upstream of Florence Lake Vs.[2]				Boulder Creek Upstream of Florence Lake Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[3]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[3]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SFSJR Upstream of Florence Lake (RM 30.6)	114	76	0	0								
Boulder Creek Upstream of Florence Lake (RM 0.10)	107	146	0	0								
SFSJR Downstream of Florence Lake Dam (RM 27.85)	102	130	0	0	0	1	0	0	0	19	0	0
SFSJR Downstream of Jackass Meadow (RM 26.15)	138	137	0	0	50	5	0	0	38	28	0	0
SFSJR Upstream of Hooper Creek (RM 24.70)	132	137	0	0	23	7	0	0	20	26	0	0
SFSJR Upstream of Crater Creek (RM 23.60)	141	175	0	0	35	38	0	0	27	73	0	0
SFSJR Upstream of Bear Creek (RM 22.35)	106	166	0	0	15	38	0	0	13	58	0	0
SFSJR Upstream of Mono Hot Springs (RM 20.90)	152	122	0	0	29	5	0	0	18	37	0	0
SFSJR Upstream of Camp 62 Creek Confluence (RM 20.20)	152	155	0	0	40	49	0	0	28	120	0	0
SFSJR Upstream of Bolsillo Creek Confluence (RM 19.65)	152	155	0	0	30	50	0	0	18	119	0	0
SFSJR Upstream of Camp 61 Creek Confluence (RM 17.90)	127	148	0	0	52	66	0	0	36	137	0	0
SFSJR Upstream of Mono Creek Confluence (RM 16.65)	127	154	0	0	82	71	0	0	49	139	0	0
SFSJR Upstream of Warm Creek Confluence (RM 15.95)	0	133	0	0	0	29	0	0	0	93	0	0
SFSJR Upstream of Rattlesnake Creek Confluence (RM 14.55)	83	177	0	0	17	48	0	0	11	108	0	0
SFSJR Upstream of Hoffman Creek Confluence (RM 8.55)	85	178	0	0	9	53	0	0	7	100	0	0
SFSJR Upstream of SJR Confluence (RM 0.10) (Length of Bypass Reach)	83	184	0	0	41	65	0	0	18	145	0	0

[1] Florence Lake was diverted for 184 days in 2000 and 2001.
[2] SFSJR Upstream of Florence Lake logged fewer days than Boulder Creek and SFSJR Downstream of Florence Lake.
[3] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.
[4] Hardhead not present in this reach.

Table CAWG 5-335. Summary of Mean Temperature Comparisons for South Fork San Joaquin River Tributaries[2].

	Days Monitored		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001
Hooper Creek Upstream of Diversion (RM 0.70)	116	137	0	0	**Hooper Creek Upstream of Diversion Vs.**			
Hooper Creek Downstream of Diversion (RM 0.60)	117	137	0	0	0	0	0	0
Hooper Creek Upstream of SFSJR (RM 0.10)	132	137	0	0	0	0	0	0
Crater Creek Diversion (RM 2.80)	141	142	0	0	**Crater Creek Diversion Vs.**			
Crater Creek Diversion Inflow (RM 0.70)	68	49	0	0	5	14	0	0
Crater Creek Upstream of SFSJR (RM 0.10)	141	137	0	0	30	8	0	0
Bear Creek Upstream of Diversion (RM 1.80)	116	108	0	0	**Bear Creek Upstream of Diversion Vs.**			
Bear Creek Downstream of Diversion (RM 1.50)	81	142	0	0	0	0	0	0
Bear Creek Upstream of SFSJR (RM 0.05)	147	166	0	0	2	5	0	0
Camp 62 Creek Diversion (RM 1.40)	147	146	0	0	**Camp 62 Creek Diversion Vs.**			
Camp 62 Upstream of SFSJR (RM 0.05)	152	155	0	0	0	54	0	0
Chinquapin Creek Diversion (RM 0.90)	152	146	0	0	**Chinquapin Creek Diversion Vs.**			
Camp 62 Upstream of SFSJR (RM 0.05)	152	155	0	0	0	27	0	0
Bolsillo Creek Diversion (RM 1.55)	152	146	0	0	**Bolsillo Creek Diversion Vs.**			
Bolsillo Creek Upstream of SFSJR (RM 0.05)	152	155	0	0	0	0	0	0
Mono Creek Upstream of Diversion (RM 6.30)	147	122	0	0	**Mono Creek Upstream of Diversion Vs.**			
Mono Creek Downstream of Diversion (RM 5.75)	147	105	0	0	0	0	0	0
Mono Creek Upstream of SFSJR (RM 0.05)	127	154	0	0	60	71	0	0

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

CAWG 5-336. Summary of Maximum Temperature Comparisons for South Fork San Joaquin River Tributaries[2].

	Days Monitored		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001
Hooper Creek Upstream of Diversion (RM 0.70)	116	137	0	0	**Hooper Creek Upstream of Diversion Vs.**			
Hooper Creek Downstream of Diversion (RM 0.60)	117	137	0	0	0	0	0	0
Hooper Creek Upstream of SFSJR (RM 0.10)	132	137	0	0	0	0	0	0
Crater Creek Diversion (RM 2.80)	141	142	0	0	**Crater Creek Diversion Vs.**			
Crater Creek Diversion Inflow (RM 0.70)	68	49	0	0	26	20	0	0
Crater Creek Upstream of SFSJR (RM 0.10)	141	137	0	0	34	16	0	0
Bear Creek Upstream of Diversion (RM 1.80)	116	108	0	0	**Bear Creek Upstream of Diversion Vs.**			
Bear Creek Downstream of Diversion (RM 1.50)	81	142	0	0	0	0	0	0
Bear Creek Upstream of SFSJR (RM 0.05)	147	166	0	0	0	5	0	0
Camp 62 Creek Diversion (RM 1.40)	147	146	0	0	**Camp 62 Creek Diversion Vs.**			
Camp 62 Upstream of SFSJR (RM 0.05)	152	155	0	0	0	54	0	0
Chinquapin Creek Diversion (RM 0.90)	152	146	0	0	**Chinquapin Creek Diversion Vs.**			
Camp 62 Upstream of SFSJR (RM 0.05)	152	155	0	0	0	27	0	0
Bolsillo Creek Diversion (RM 1.55)	152	146	0	0	**Bolsillo Creek Diversion Vs.**			
Bolsillo Creek Upstream of SFSJR (RM 0.05)	152	155	0	0	0	0	0	0
Mono Creek Upstream of Diversion (RM 6.30)	147	122	0	0	**Mono Creek Upstream of Diversion Vs.**			
Mono Creek Downstream of Diversion (RM 5.75)	147	105	0	0	0	0	0	0
Mono Creek Upstream of SFSJR (RM 0.05)	127	154	0	0	67	56	0	0

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

Table CAWG 5-337. Summary of Mean Temperature Comparisons for the San Joaquin River.

					SJR Upstream of SFSJR						SFJSR Upstream of SJR				SJR Upstream of Mammoth Pool			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SJR Upstream of SFSJR (RM 38.50)	83	184	0	12														
SFJSR Upstream of SJR (RM 0.10)	83	184	6	57														
SJR Upstream of Mammoth Pool (RM 35.50)	46	133	0	32	0	0	0	0			0	0	0	0				
SJR Downstream Mammoth Pool Dam (RM 25.55)	138	145	14	33	60	51	8	23							37	34	0	19
SJR Upstream Rock Creek (RM 22.60)	122	135	27	59	61	47	6	20							33	21	0	11
SJR Upstream Ross Creek (RM 18.75)	120	184	61	99	78	100	25	51							28	34	2	31
SJR Upstream Mammoth Pool Powerhouse (RM 18.30)	67	184	15	94	43	90	8	42							22	33	0	29
SJR Dowstream Dam 6 (RM 17.00)	0	184	0	0	0	28	0	0	0	8								
SJR Upstream Stevenson Creek (RM 15.50)	117	184	9	92	43	101	4	47	19	13								
SJR Downstream Powerhouse 3 (RM 11.20)	130	163	0	1	39	17	0	0	6	1								

[1] Dam 6 and Mammoth Pool Dam diverted water from the San Joaquin River for 184 days during the sampling period in 2000 and 200

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead tolerance range as defined in the methodology, days outside of preference range were at cooler temperatures

Table CAWG 5-337. Summary of Mean Temperature Comparisons for the San Joaquin River (cont).

			SJR Upstream of Mammoth Pool Powerhouse						Big Creek Upstream of Powerhouse 8							
	Days Monitored[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Was outside Hardhead Preference Range[3]	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SJR Upstream of SFSJR (RM 38.50)	83	184														
SFJSR Upstream of SJR (RM 0.10)	83	184														
SJR Upstream of Mammoth Pool (RM 35.50)	46	133														
SJR Downstream Mammoth Pool Dam (RM 25.55)	138	145														
SJR Upstream Rock Creek (RM 22.60)	122	135														
SJR Upstream Ross Creek (RM 18.75)	120	184														
SJR Upstream Mammoth Pool Powerhouse (RM 18.30)	67	184														
SJR Dowstream Dam 6 (RM 17.00)	0	184	0	0	0	0	0	0	0	20	0	0	0	3	0	109
SJR Upstream Stevenson Creek (RM 15.50)	117	184	0	0	0	0	0	0	3	1	2	0	0	1	33	38
SJR Downstream Powerhouse 3 (RM 11.20)	130	163	1	6	0	0	0	0	0	0	0	0	0	0	51	109

[1] Dam 6 and Mammoth Pool Dam diverted water from the San Joaquin River for 184 days during the sampling period in 2000 and 200

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead tolerance range as defined in the methodology, days outside of preference range were at cooler temperatures

Table CAWG 5-338. Summary of Maximum Temperature Comparisons for the San Joaquin River.

			SJR Upstream of SFSJR						SFJSR Upstream of SJR				SJR Upstream of Mammoth Pool			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SJR Upstream of SFSJR (RM 38.50)	83	184	0	0														
SFJSR Upstream of SJR (RM 0.10)	83	184	0	0														
SJR Upstream of Mammoth Pool (RM 35.50)	46	133	0	0	0	0	0	0			0	0	0	0				
SJR Downstream Mammoth Pool Dam (RM 25.55)	138	145	0	0	56	50	0	0							39	30	0	0
SJR Upstream Rock Creek (RM 22.60)	122	135	0	0	50	29	0	0							29	22	0	0
SJR Upstream Ross Creek (RM 18.75)	120	184	4	8	82	167	0	8							41	86	0	8
SJR Upstream Mammoth Pool Powerhouse (RM 18.30)	67	184	2	3	57	157	0	3							38	76	0	3
SJR Dowstream Dam 6 (RM 17.00)	0	184	0	0	0	24	0	0	0	5								
SJR Upstream Stevenson Creek (RM 15.50)	117	184	0	3	53	144	0	3	15	10								
SJR Downstream Powerhouse 3 (RM 11.20)	130	163	0	0	40	16	0	0	6	1								

[1] Dam 6 and Mammoth Pool Dam diverted water from the San Joaquin River for 184 days during the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead tolerance range as defined in the methodology, days outside of preference range were at cooler temperatures.

Table CAWG 5-338. Summary of Maximum Temperature Comparisons for the San Joaquin River (cont).

			SJR Upstream of Mammoth Pool Powerhouse						Big Creek Upstream of Powerhouse 8							
	Days Monitored[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Was Outside Hardhead Preference Range[3] and warming was at least 5°F		No. of Days Temperature Was outside Hardhead Preference Range[3]	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
SJR Upstream of SFSJR (RM 38.50)	83	184														
SFJSR Upstream of SJR (RM 0.10)	83	184														
SJR Upstream of Mammoth Pool (RM 35.50)	46	133														
SJR Downstream Mammoth Pool Dam (RM 25.55)	138	145														
SJR Upstream Rock Creek (RM 22.60)	122	135														
SJR Upstream Ross Creek (RM 18.75)	120	184														
SJR Upstream Mammoth Pool Powerhouse (RM 18.30)	67	184														
SJR Dowstream Dam 6 (RM 17.00)	0	184	0	0	0	0	0	0	0	0	0	0	0	0	0	93
SJR Upstream Stevenson Creek (RM 15.50)	117	184	0	0	0	0	0	0	3	1	0	0	0	0	20	33
SJR Downstream Powerhouse 3 (RM 11.20)	130	163	0	1	0	0	0	0	0	12	0	0	0	0	50	97

[1] Dam 6 and Mammoth Pool Dam diverted water from the San Joaquin River for 184 days during the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead tolerance range as defined in the methodology, days outside of preference range were at cooler temperatures.

Table CAWG 5-339. Summary of Mean Temperature Comparisons for San Joaquin River Tributaries[2].

	Days Monitored		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001
Rock Creek at Diversion (RM 0.40)	138	140	6	16	**Rock Creek at Diversion Vs.**			
Rock Creek Upstream of SFSJR (RM 0.10)	138	144	19	72	0	17	0	16
Ross Creek at Diversion (RM 0.85)	82	85	38	35	**Ross Creek at Diversion Vs.**			
Ross Creek Upstream of SFSJR (RM 0.05)	37	78	0	59	0	47	0	30

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

Table CAWG 5-340. Summary of Maximum Temperature Comparisons for San Joaquin River Tributaries[2].

	Days Monitored		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001
Rock Creek at Diversion (RM 0.40)	138	140	0	0	**Rock Creek at Diversion Vs.**			
Rock Creek Upstream of SFSJR (RM 0.10)	138	144	0	0	1	13	0	0
Ross Creek at Diversion (RM 0.85)	82	85	15	18	**Ross Creek at Diversion Vs.**			
Ross Creek Upstream of SFSJR (RM 0.05)	37	78	0	60	0	62	0	49

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

Table CAWG 5-341. Summary of Mean Temperature Comparisons for Big Creek[3].

					Big Creek Upstream of Huntington Lake Vs.				Rancheria Creek Vs.				Potter Creek Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Big Creek Upstream of Huntington Lake (RM 13.40)	108	177	0	9												
Rancheria Creek (RM 2.20)	128	177	0	0												
Potter Creek (RM ~0.10)	116	177	0	0												
Coon Creek (RM 0.75)	134	159	0	0												
Line Creek (RM ~0.80)	69	149	0	0												
Home Camp Creek (RM 1.35)	142	149	0	0												
Big Creek Downstream of Huntington Lake (RM 9.90)	147	149	0	0	37	32	0	0	66	48	0	0	64	39	0	0
Big Creek Canyon (RM 7.65)	133	149	0	0	3	7	0	0	54	52	0	0	18	2	0	0
Big Creek Upstream of Powerhouse 1 (RM 6.40)	154	183	0	0	1	21	0	0	54	75	0	0	37	9	0	0
Pitman Creek Upstream of Big Creek (RM 0.10)	121	184	0	0												
Big Creek Downstream of Dam 4 (RM 5.90)	133	183	0	0	24	66	0	0	78	162	0	0	81	162	0	0
Big Creek Upstream of Balsam Creek (RM 5.00)	129	183	0	62	22	117	0	24	79	165	0	62	71	165	0	62
Big Creek Upstream of Powerhouse 2 (RM 2.10)	154	184	2	17	31	88	0	3	114	170	2	17	108	172	1	17
Big Creek Downstream of Dam 5 (RM 1.65)	121	184	0	0	37	55	0	0	75	75	0	0	76	53	0	0
Big Creek Upstream of Powerhouse 8 (RM 0.10)	94	184	7	41	31	112	4	10	91	177	7	41	81	177	7	41

[1] Dam1, Dam 4, and Dam 5 diverted water from Big Creek for 184 days during the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead not present in these reaches

Table CAWG 5-341. Summary of Mean Temperature Comparisons for Big Creek[3] (cont).

	Days Monitored[1]		Coon Creek Vs.				Line Creek Vs.				Home Camp Creek Vs.				Pitman Creek Upstream of Big Creek Vs.			
			No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Big Creek Upstream of Huntington Lake (RM 13.40)	108	177																
Rancheria Creek (RM 2.20)	128	177																
Potter Creek (RM ~0.10)	116	177																
Coon Creek (RM 0.75)	134	159																
Line Creek (RM ~0.80)	69	149																
Home Camp Creek (RM 1.35)	142	149																
Big Creek Downstream of Huntington Lake (RM 9.90)	147	149	68	55	0	0	1	39	0	0	59	39	0	0				
Big Creek Canyon (RM 7.65)	133	149	62	63	0	0	0	10	0	0	32	32	0	0				
Big Creek Upstream of Powerhouse 1 (RM 6.40)	154	183	63	74	0	0	15	8	0	0	31	10	0	0				
Pitman Creek Upstream of Big Creek (RM 0.10)	121	184																
Big Creek Downstream of Dam 4 (RM 5.90)	133	183	79	144	0	0	3	135	0	0	65	133	0	0	41	60	0	0
Big Creek Upstream of Balsam Creek (RM 5.00)	129	183	74	147	0	62	30	137	0	62	65	137	0	62	37	168	0	62
Big Creek Upstream of Powerhouse 2 (RM 2.10)	154	184	114	152	2	17	50	143	2	17	115	142	2	17	65	123	0	12
Big Creek Downstream of Dam 5 (RM 1.65)	121	184	77	65	0	0	0	39	0	0	62	39	0	0				
Big Creek Upstream of Powerhouse 8 (RM 0.10)	94	184	91	159	7	41	51	149	7	41	89	149	7	41				

[1] Dam1, Dam 4, and Dam 5 diverted water from Big Creek for 184 days during the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes

[3] Hardhead not present in these reaches

Table CAWG 5-342. Summary of Maximum Temperature Comparisons for Big Creek[3].

					Big Creek Upstream of Huntington Lake Vs.				Rancheria Creek Vs.				Potter Creek Vs.			
	Days Monitored[1]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Big Creek Upstream of Huntington Lake (RM 13.40)	108	177	0	60												
Rancheria Creek (RM 2.20)	128	177	0	0												
Potter Creek (RM ~0.10)	116	177	0	0												
Coon Creek (RM 0.75)	134	159	0	0												
Line Creek (RM ~0.80)	69	149	0	0												
Home Camp Creek (RM 1.35)	142	149	0	0												
Big Creek Downstream of Huntington Lake (RM 9.90)	147	149	0	0	17	22	0	0	54	33	0	0	36	13	0	0
Big Creek Canyon (RM 7.65)	133	149	0	0	1	0	0	0	36	7	0	0	2	0	0	0
Big Creek Upstream of Powerhouse 1 (RM 6.40)	154	183	0	0	1	20	0	0	42	24	0	0	4	4	0	0
Pitman Creek Upstream of Big Creek (RM 0.10)	121	184	0	0												
Big Creek Downstream of Dam 4 (RM 5.90)	133	183	0	0	7	64	0	0	64	157	0	0	31	90	0	0
Big Creek Upstream of Balsam Creek (RM 5.00)	129	183	0	2	2	72	0	0	78	165	0	2	55	134	0	2
Big Creek Upstream of Powerhouse 2 (RM 2.10)	154	184	0	0	2	72	0	0	114	167	0	0	92	119	0	0
Big Creek Downstream of Dam 5 (RM 1.65)	121	184	0	0	19	44	0	0	59	47	0	0	48	31	0	0
Big Creek Upstream of Powerhouse 8 (RM 0.10)	94	184	0	0	10	91	0	0	91	177	0	0	79	177	0	0

[1] Dam1, Dam 4, and Dam 5 diverted water from Big Creek for 184 da s durin ŋ the sampling period in 2000 and 2001

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[3] Hardhead not present in these reaches

Table CAWG 5-342. Summary of Maximum Temperature Comparisons for Big Creek[3] (cont).

	Days Monitored[1]		Coon Creek Vs.				Line Creek Vs.				Home Camp Creek Vs.				Pitman Creek Upstream of Big Creek Vs.			
			No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Big Creek Upstream of Huntington Lake (RM 13.40)	108	177																
Rancheria Creek (RM 2.20)	128	177																
Potter Creek (RM ~0.10)	116	177																
Coon Creek (RM 0.75)	134	159																
Line Creek (RM ~0.80)	69	149																
Home Camp Creek (RM 1.35)	142	149																
Big Creek Downstream of Huntington Lake (RM 9.90)	147	149	60	51	0	0	0	27	0	0	46	34	0	0				
Big Creek Canyon (RM 7.65)	133	149	57	63	0	0	0	0	0	0	16	10	0	0				
Big Creek Upstream of Powerhouse 1 (RM 6.40)	154	183	59	79	0	0	2	1	0	0	19	9	0	0				
Pitman Creek Upstream of Big Creek (RM 0.10)	121	184																
Big Creek Downstream of Dam 4 (RM 5.90)	133	183	70	130	0	0	0	55	0	0	53	63	0	0	41	60	0	0
Big Creek Upstream of Balsam Creek (RM 5.00)	129	183	75	146	0	2	18	137	0	2	57	137	0	2	37	168	0	2
Big Creek Upstream of Powerhouse 2 (RM 2.10)	154	184	112	147	0	0	42	119	0	0	102	136	0	0	65	123	0	0
Big Creek Downstream of Dam 5 (RM 1.65)	121	184	68	65	0	0	0	34	0	0	55	36	0	0				
Big Creek Upstream of Powerhouse 8 (RM 0.10)	94	184	91	159	0	0	50	149	0	0	82	149	0	0				

[1] Dam1, Dam 4, and Dam 5 diverted water from Big Creek for 184 days during the sampling period in 2000 and 2001
[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.
[3] Hardhead not present in these reaches

Table CAWG 5-343. Summary of Mean Temperature Comparisons for Big Creek Tributaries[2].

	Days Monitored			No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation			No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]			No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		
	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
Pitman Creek Diversion (RM 1.60)	139	161		0	0		**Pitman Creek Diversion Vs.**					
Pitman Upstream of Big Creek (RM 0.10)	121	184		0	0		0	8		0	0	
Balsam Creek Diversion (RM 0.75)	127	183	158	0	0	0	**Balsam Creek Diversion Vs.**					
Balsam Creek Upstream of Big Creek (RM 0.05)	154	183	158	0	0	0	0	0	0	0	0	0
Ely Creek Diversion (RM 1.00)	154	97		0	0		**Ely Creek Diversion Vs.**					
Ely Creek Upstream of Big Creek (RM 0.50)	121	170		0	0		0	0		0	0	

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.
[2] Hardhead not present in these streams.

Table CAWG 5-344. Summary of Maximum Temperature Comparisons for Big Creek Tributaries[2].

	Days Monitored			No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation			No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[1]			No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		
	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
Pitman Creek Diversion (RM 1.60)	139	161		0	0		**Pitman Creek Diversion Vs.**					
Pitman Upstream of Big Creek (RM 0.10)	121	184		0	0		0	6		0	0	
Balsam Creek Diversion (RM 0.75)	127	183	158	0	0	0	**Balsam Creek Diversion Vs.**					
Balsam Creek Upstream of Big Creek (RM 0.05)	154	183	158	0	0	0	0	0	59	0	0	0
Ely Creek Diversion (RM 1.00)	154	97		0	0		**Ely Creek Diversion Vs.**					
Ely Creek Upstream of Big Creek (RM 0.50)	121	170		0	0		0	0		0	0	

[1] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[2] Hardhead not present in these streams.

Table CAWG 5-345. Summary of Mean Temperature Comparisons for North Fork Stevenson and Stevenson Creeks[3].

					North Fork Stevenson Creek Downstream of Tunnel 7 Outlet (augmented reach) Vs.				North Fork Stevenson Creek Upstream of Shaver Lake Vs.				Stevenson Creek Upstream of Shaver Lake Vs.			
	Days Monitored		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F[1]		No. of Days Temperature Exceeded Daily Average of 19°C When warming was at least 5°F[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Average of 19°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
North Fork Stevenson Creek Downstream of Tunnel 7 Outlet (RM 3.50)	147	150	0	0												
North Fork Stevenson Creek Upstream of Shaver Lake (RM 1.10)	147	179	0	0	42	59	0	0								
Stevenson Creek Upstream of Shaver Lake (RM 8.35)	128	123	0	0												
Stevenson Creek Downstream of Shaver Lake (RM 4.25)	148	179	0	0					18	21	0	0	43	44	0	0
Stevenson Creek at Railroad Grade (RM 2.40)	120	183	0	0					0	15	0	0	36	47	0	0
Stevenson Creek Upstream of SJR (RM 0.30)	130	184	3	6					1	34	1	5	68	115	3	0

[1] North Fork Stevenson Creek is augmented by releases from Tunnel 7.

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[3] Hardhead not present in these reaches.

Table CAWG 5-346. Summary of Maximum Temperature Comparisons for North Fork Stevenson and Stevenson Creeks[3].

					North Fork Stevenson Creek Downstream of Tunnel 7 Outlet (augmented reach) Vs.				North Fork Stevenson Creek Upstream of Shaver Lake Vs.				Stevenson Creek Upstream of Shaver Lake Vs.			
	Days Monitored		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation		No. of Days Temperature Exceeded Warming of 5°F[1]		No. of Days Temperature Exceeded Daily Average of 19°C When warming was at least 5°F[1]		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F		No. of Days Temperature Exceeded Warming of 5°F When Diversion was in operation[2]		No. of Days Temperature Exceeded Daily Maximum of 24°C When Diversion was in operation and warming was at least 5°F	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
North Fork Stevenson Creek Downstream of Tunnel 7 Outlet (RM 3.50)	147	150	0	0												
North Fork Stevenson Creek Upstream of Shaver Lake (RM 1.10)	147	179	0	0	85	114	0	0								
Stevenson Creek Upstream of Shaver Lake (RM 8.35)	128	123	0	0												
Stevenson Creek Downstream of Shaver Lake (RM 4.25)	148	179	0	0					16	14	0	0	33	32	0	0
Stevenson Creek at Railroad Grade (RM 2.40)	120	183	0	0					0	3	0	0	32	31	0	0
Stevenson Creek Upstream of SJR (RM 0.30)	130	184	0	0					0	25	0	0	58	104	0	0

[1] North Fork Stevenson Creek is augmented by releases from Tunnel 7.

[2] Values represent number of days temperature exceeded total warming of 5°F when diversion was in operation. This includes natural warming plus any contribution from the Project for preliminary screening purposes.

[3] Hardhead not present in these reaches.

FIGURES

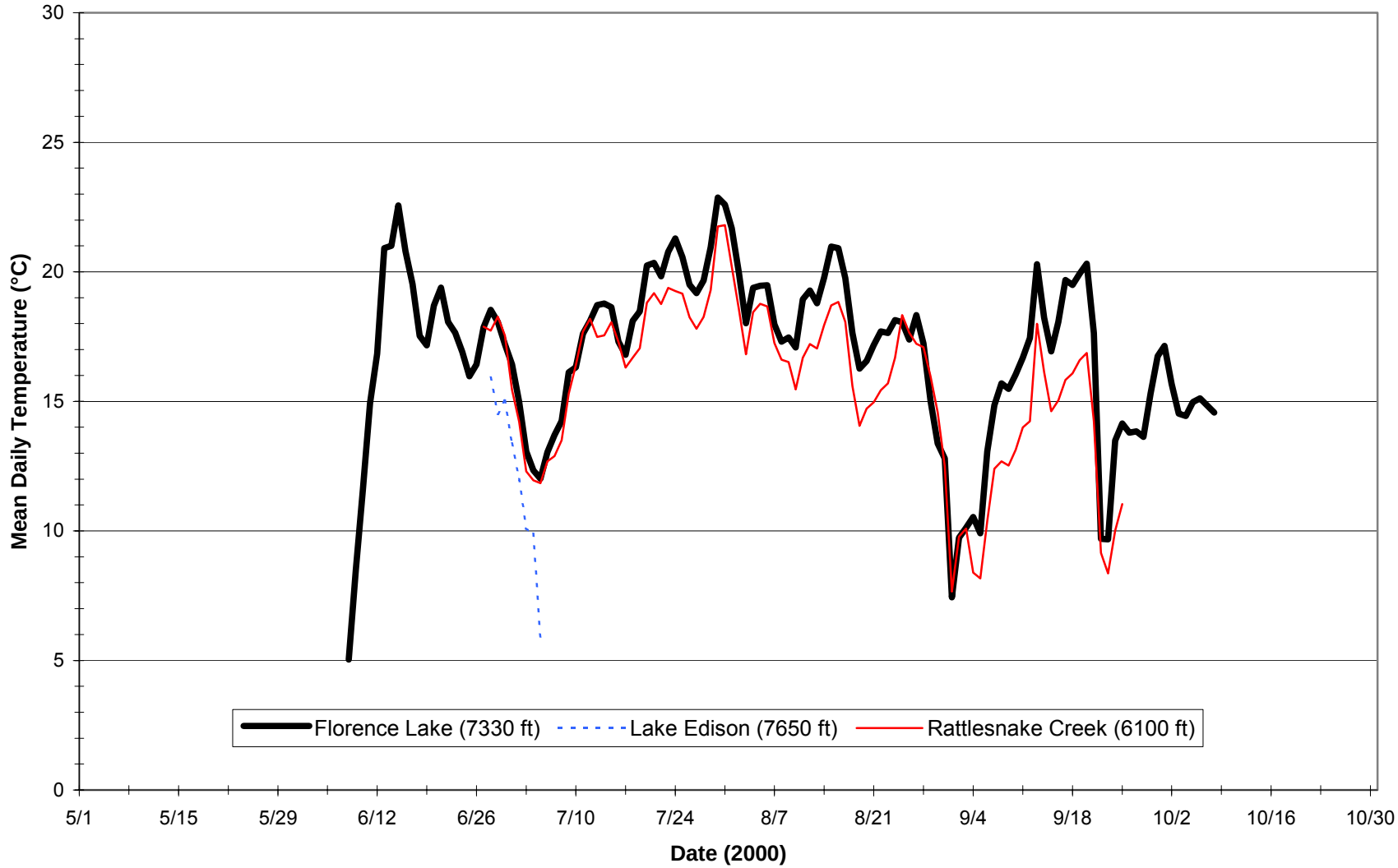


Figure CAWG 5-1. Mean Daily Average Air Temperatures for South Fork San Joaquin River Drainage, 2000.

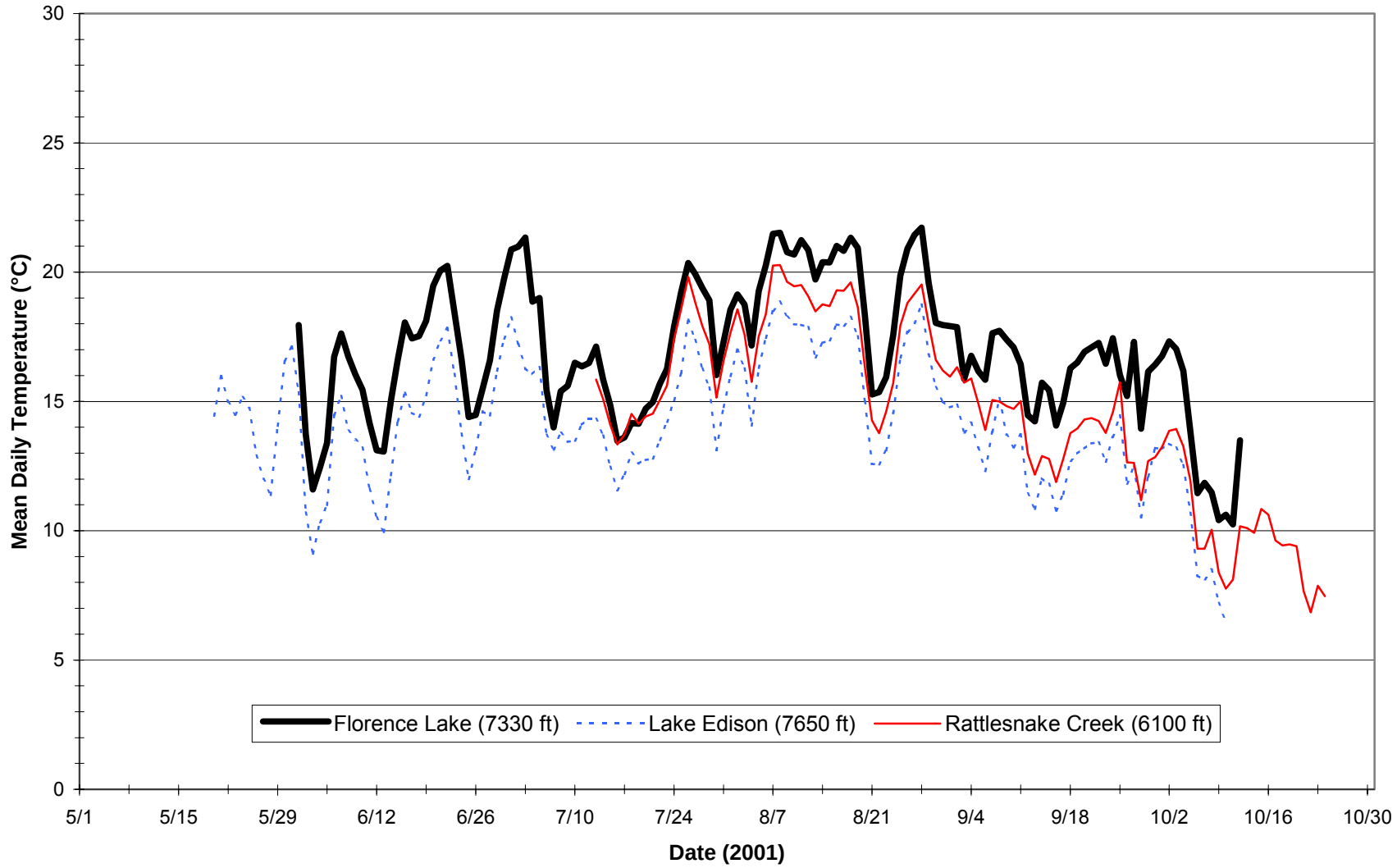


Figure CAWG 5-1. Mean Daily Average Air Temperatures for South Fork San Joaquin River Drainage, 2001 (cont).

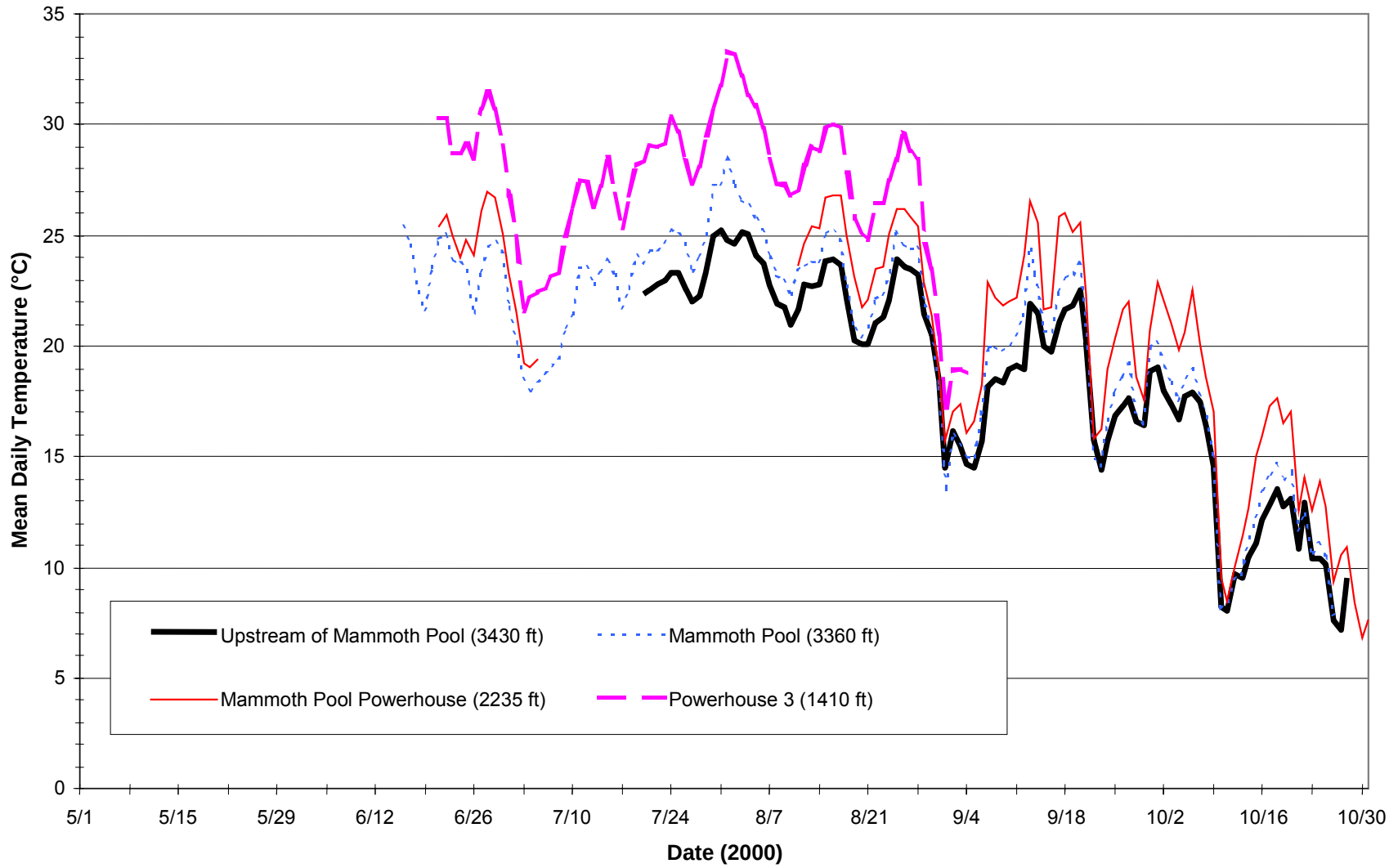


Figure CAWG 5-2. Mean Daily Average Air Temperatures for the San Joaquin River Drainage, 2000.

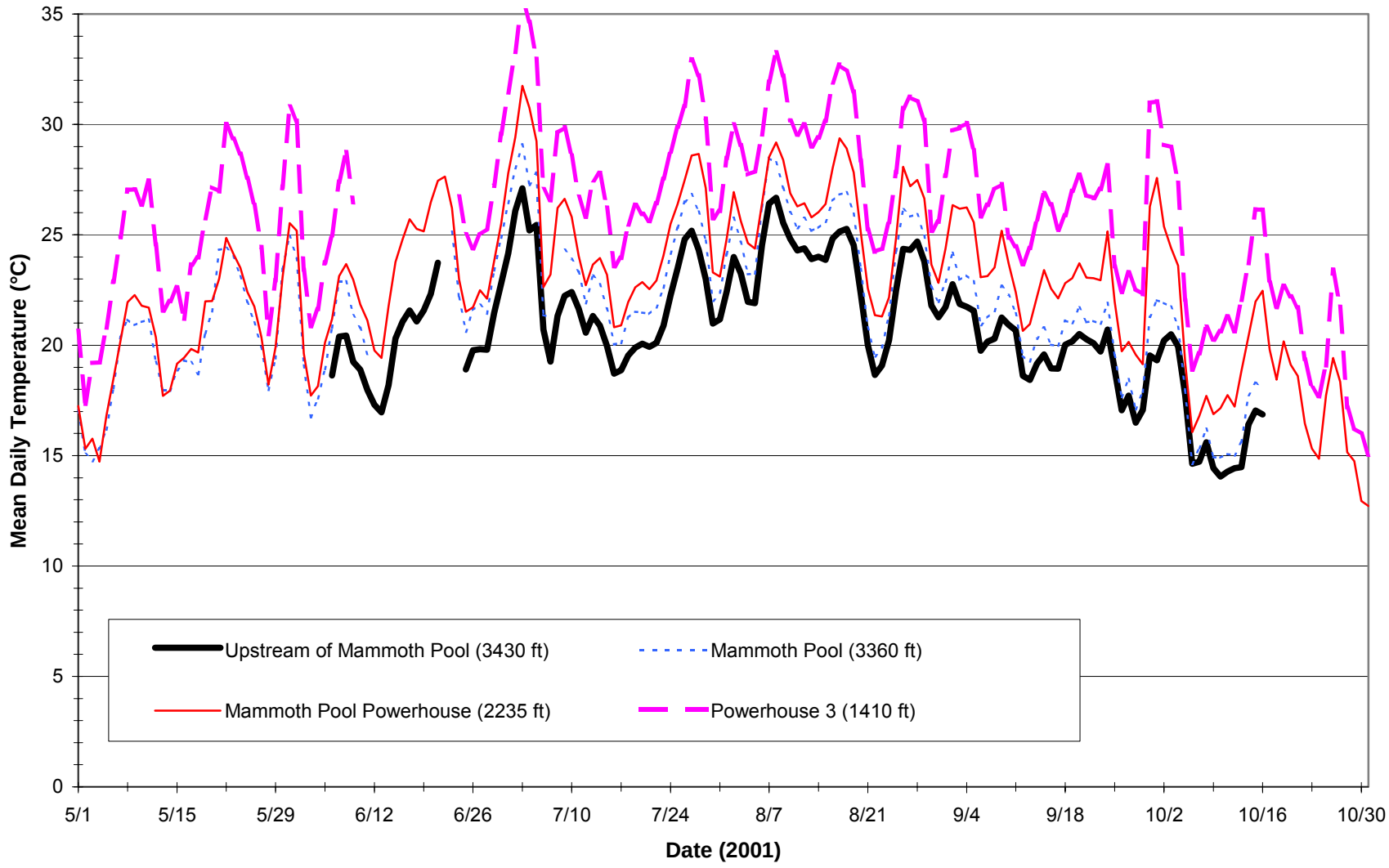


Figure CAWG 5-2. Mean Daily Average Air Temperatures for the San Joaquin River Drainage, 2001 (cont).

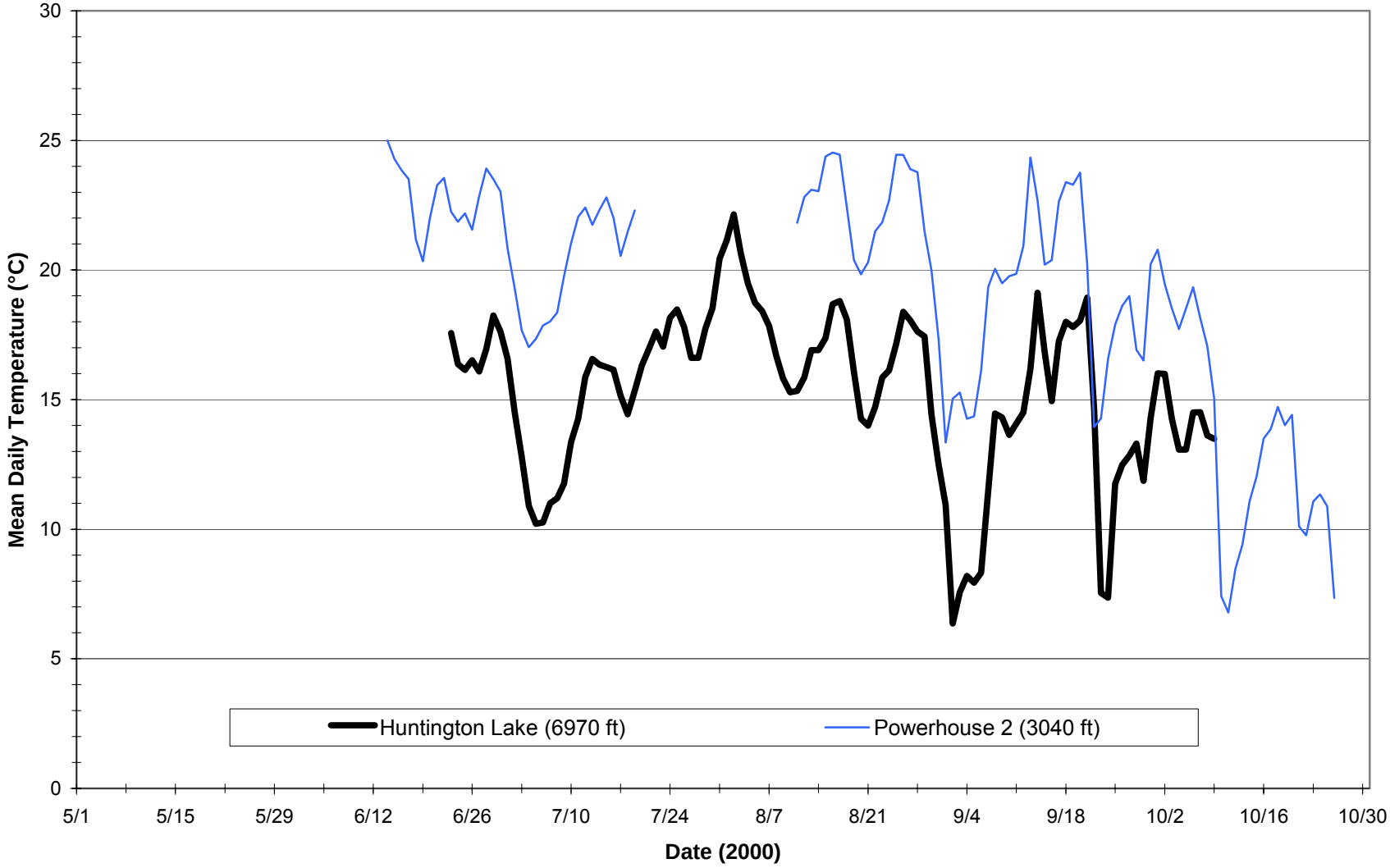


Figure CAWG 5-3. Mean Daily Average Air Temperatures for Big Creek Drainage, 2000.

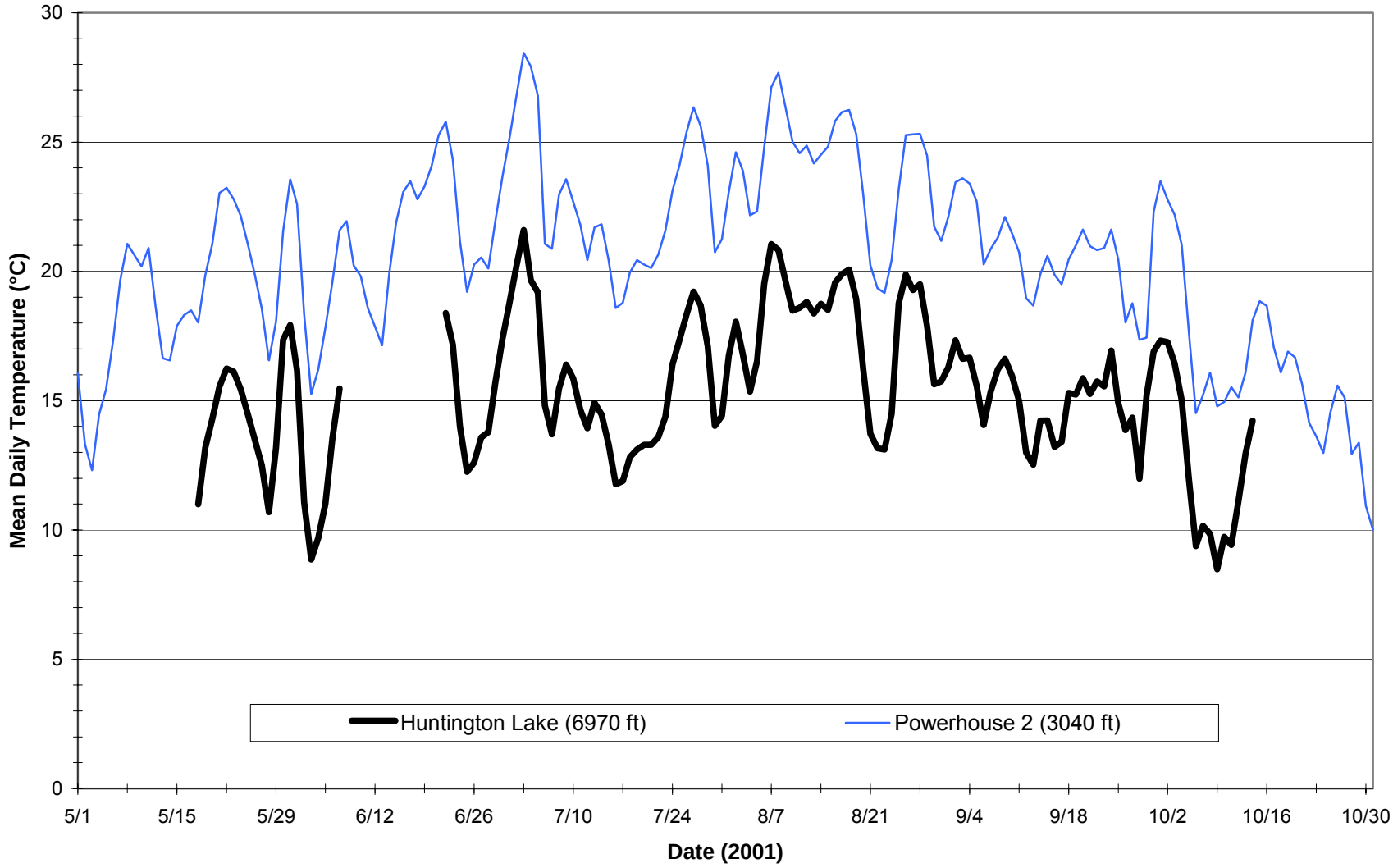


Figure CAWG 5-3. Mean Daily Average Air Temperatures for the Big Creek Drainage, 2001 (cont).

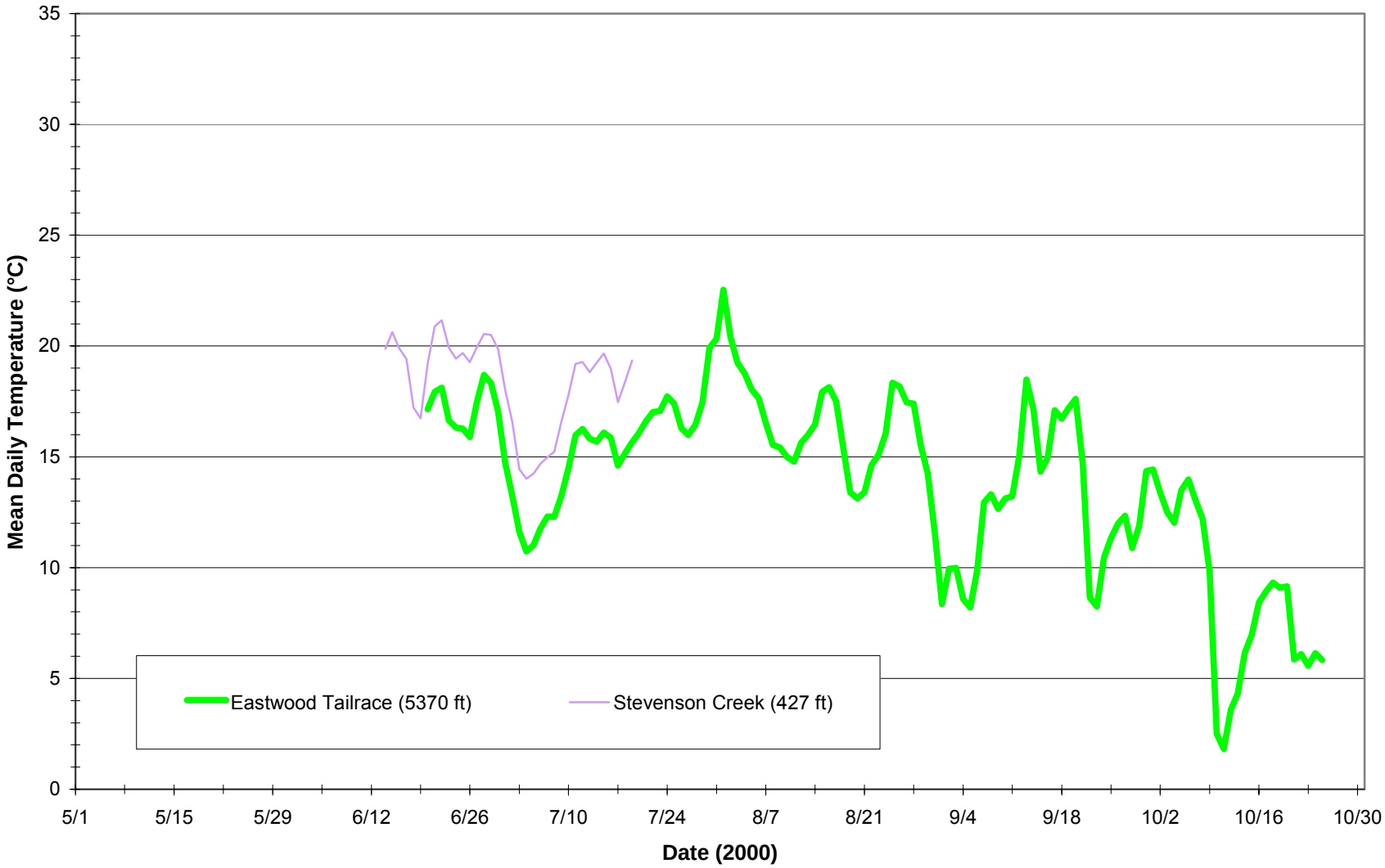


Figure CAWG 5-4. Mean Daily Average Air Temperatures for the Stevenson Creek Drainage, 2000.

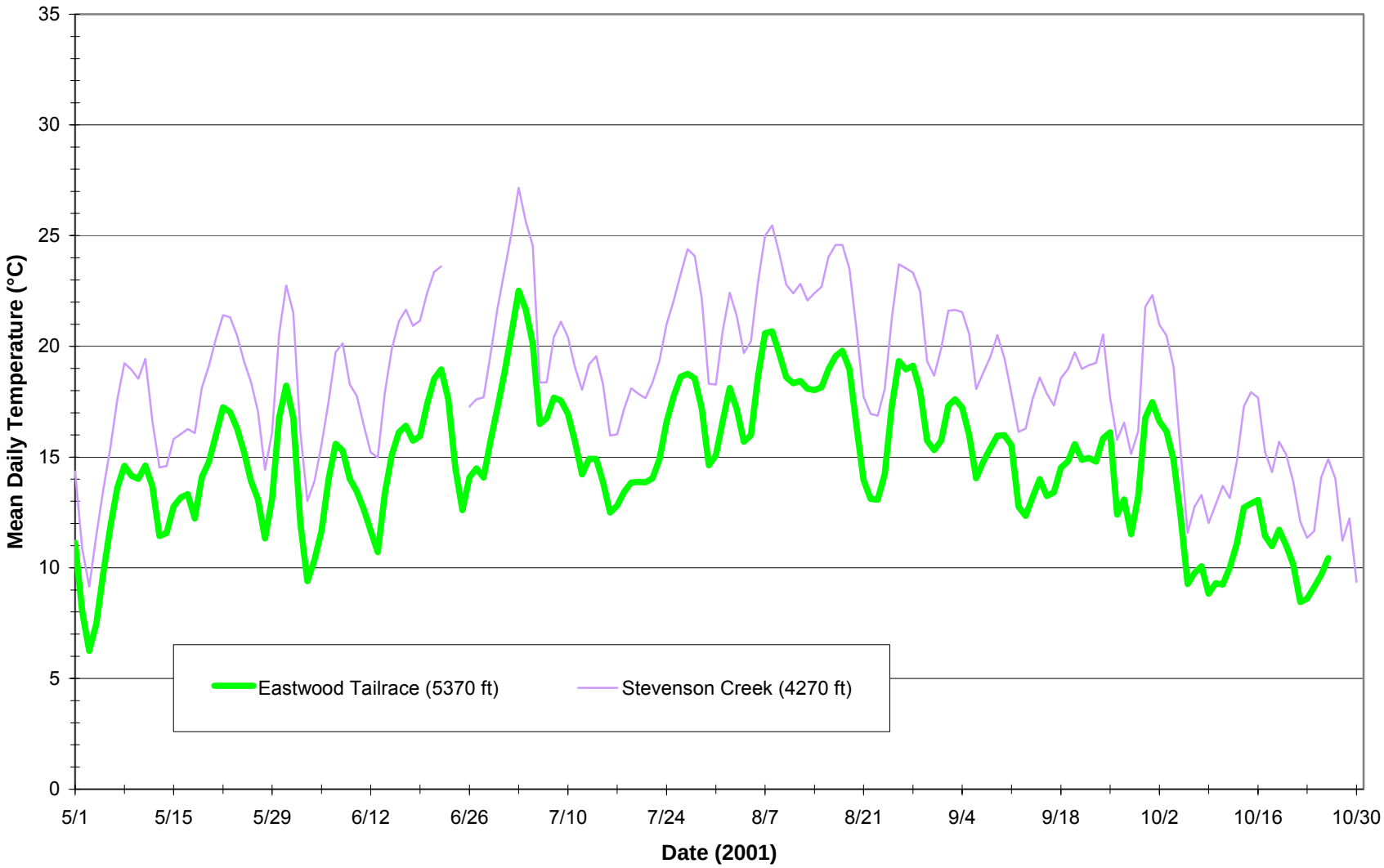
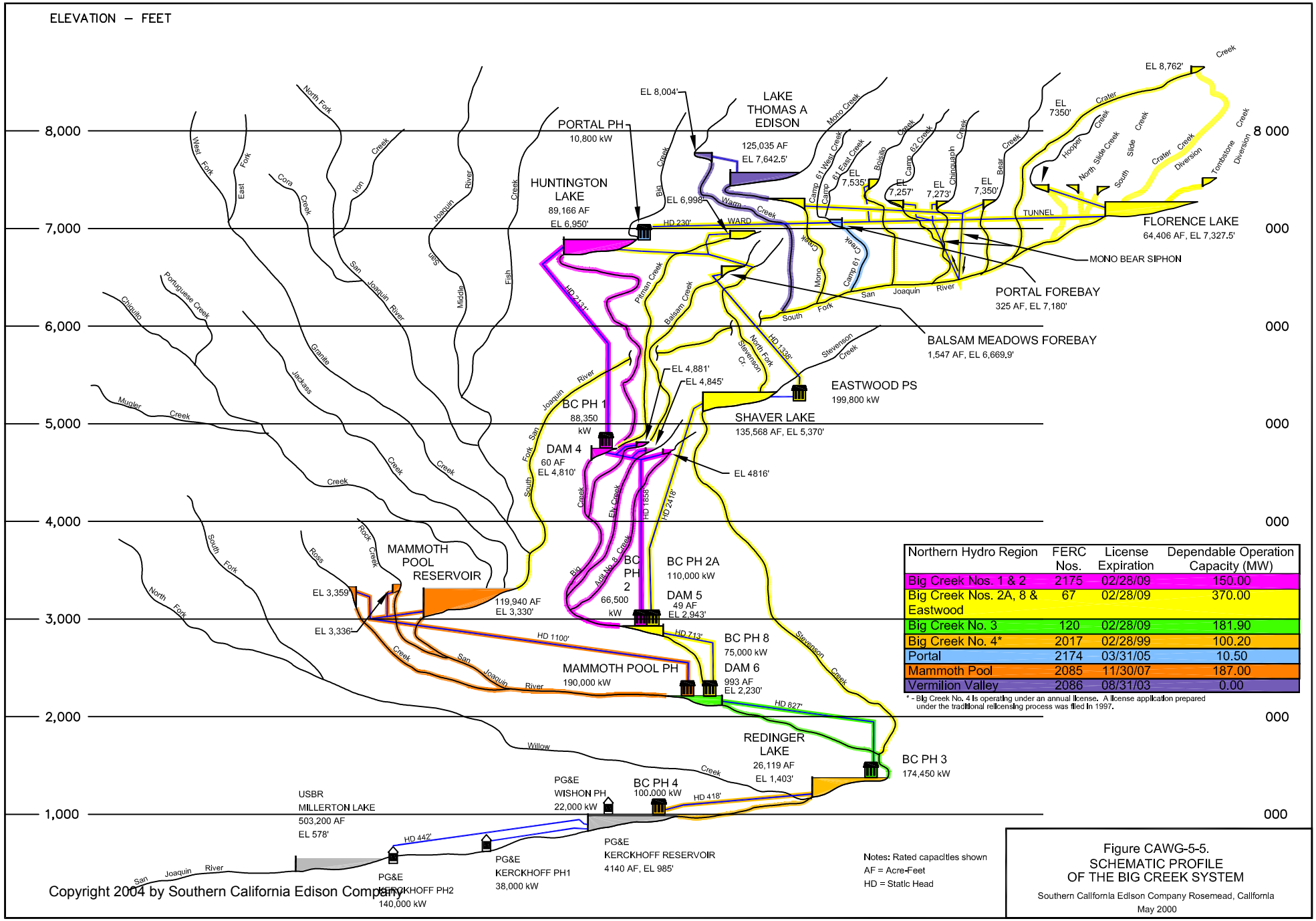


Figure CAWG 5-4. Mean Daily Average Air Temperatures for the Stevenson Creek Drainage, 2001 (cont).



Northern Hydro Region	FERC Nos.	License Expiration	Dependable Operation Capacity (MW)
Big Creek Nos. 1 & 2	2175	02/28/09	150.00
Big Creek Nos. 2A, 8 & Eastwood	67	02/28/09	370.00
Big Creek No. 3	120	02/28/09	181.90
Big Creek No. 4*	2017	02/28/99	100.20
Portal	2174	03/31/05	10.50
Mammoth Pool	2085	11/30/07	187.00
Vermilion Valley	2086	08/31/03	0.00

* - Big Creek No. 4 is operating under an annual license. A license application prepared under the traditional relicensing process was filed in 1997.

Notes: Rated capacities shown
AF = Acre-Feet
HD = Static Head

Figure CAWG-5-5.
SCHEMATIC PROFILE
OF THE BIG CREEK SYSTEM

Southern California Edison Company Rosemead, California
May 2000

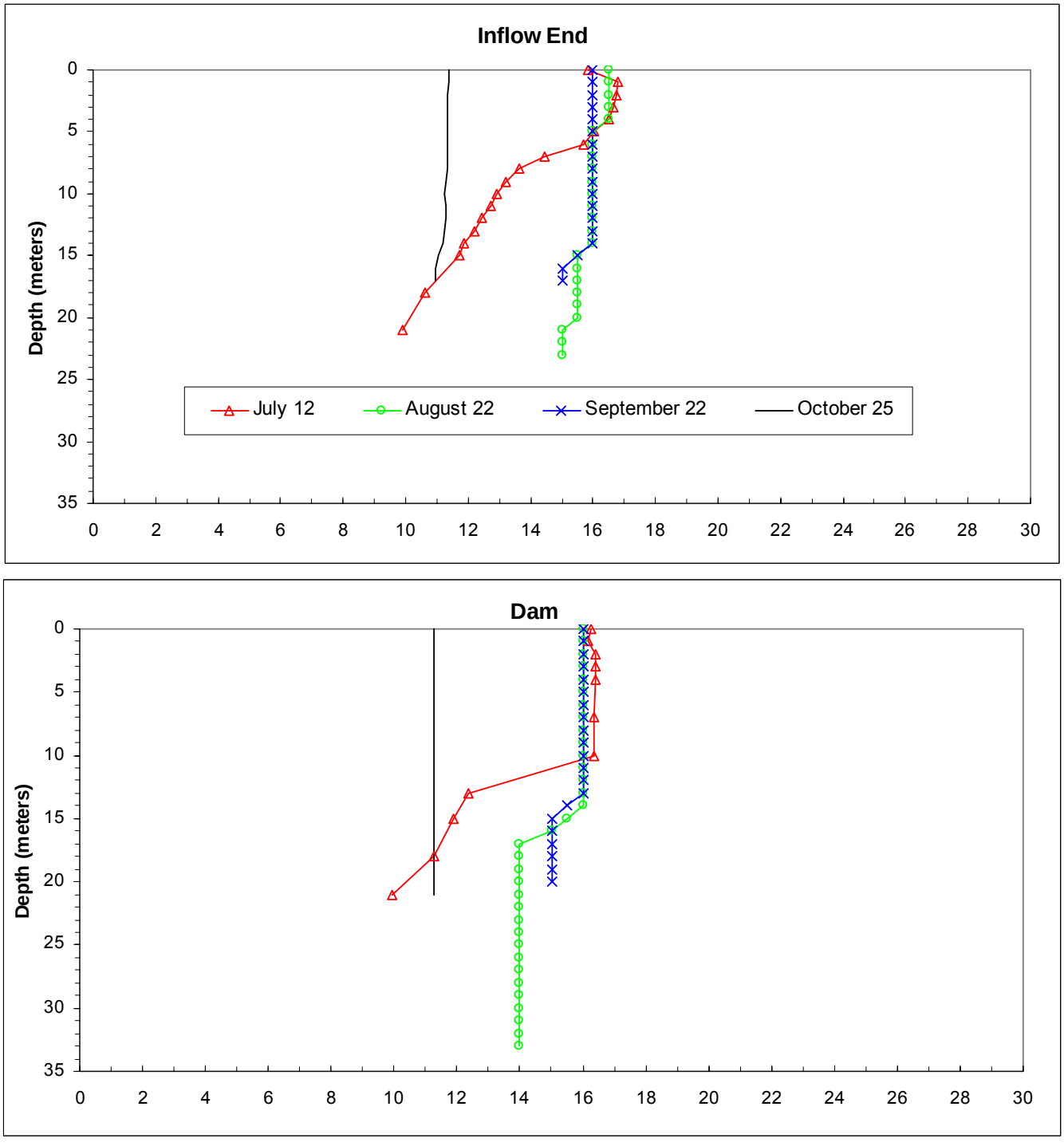


Figure CAWG 5-6. Florence Lake Water Temperature Profiles, 2000.

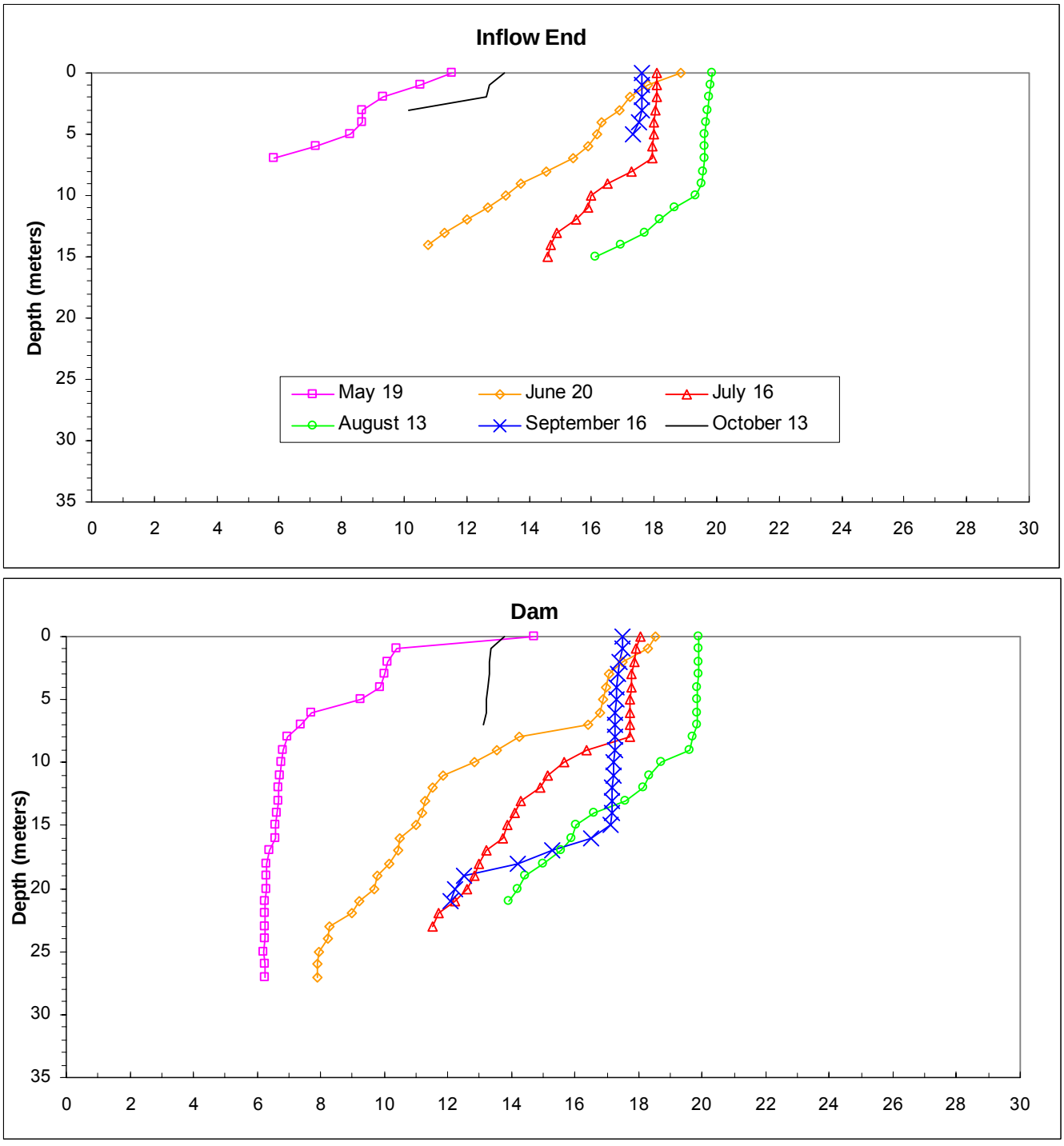


Figure CAWG 5-7. Florence Lake Water Temperature Profiles, 2001.

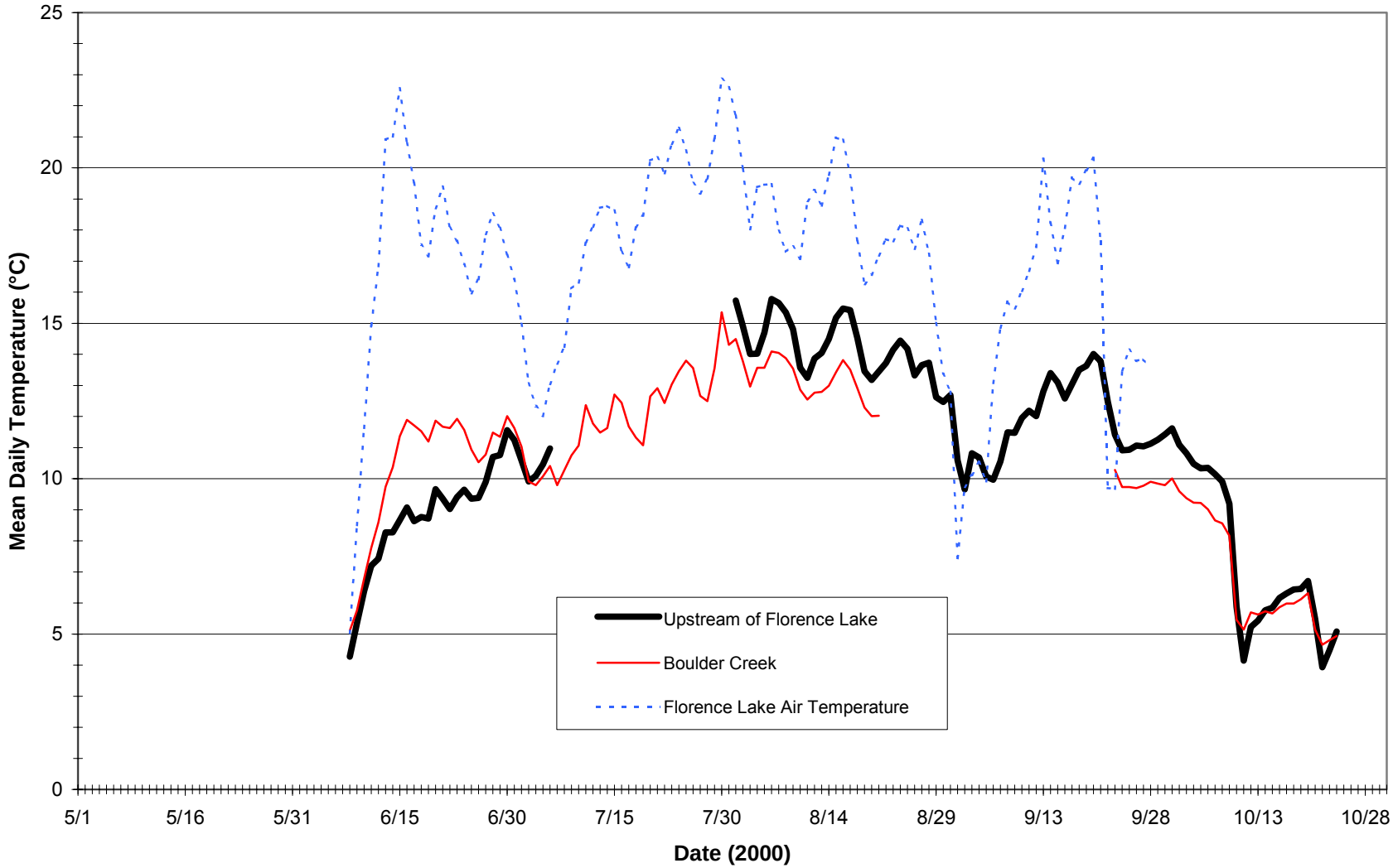


Figure CAWG 5-8. South Fork of the San Joaquin River Upstream of Florence Lake and Boulder Creek Mean Daily Water Temperatures and Florence Mean Daily Air Temperatures, 2000.

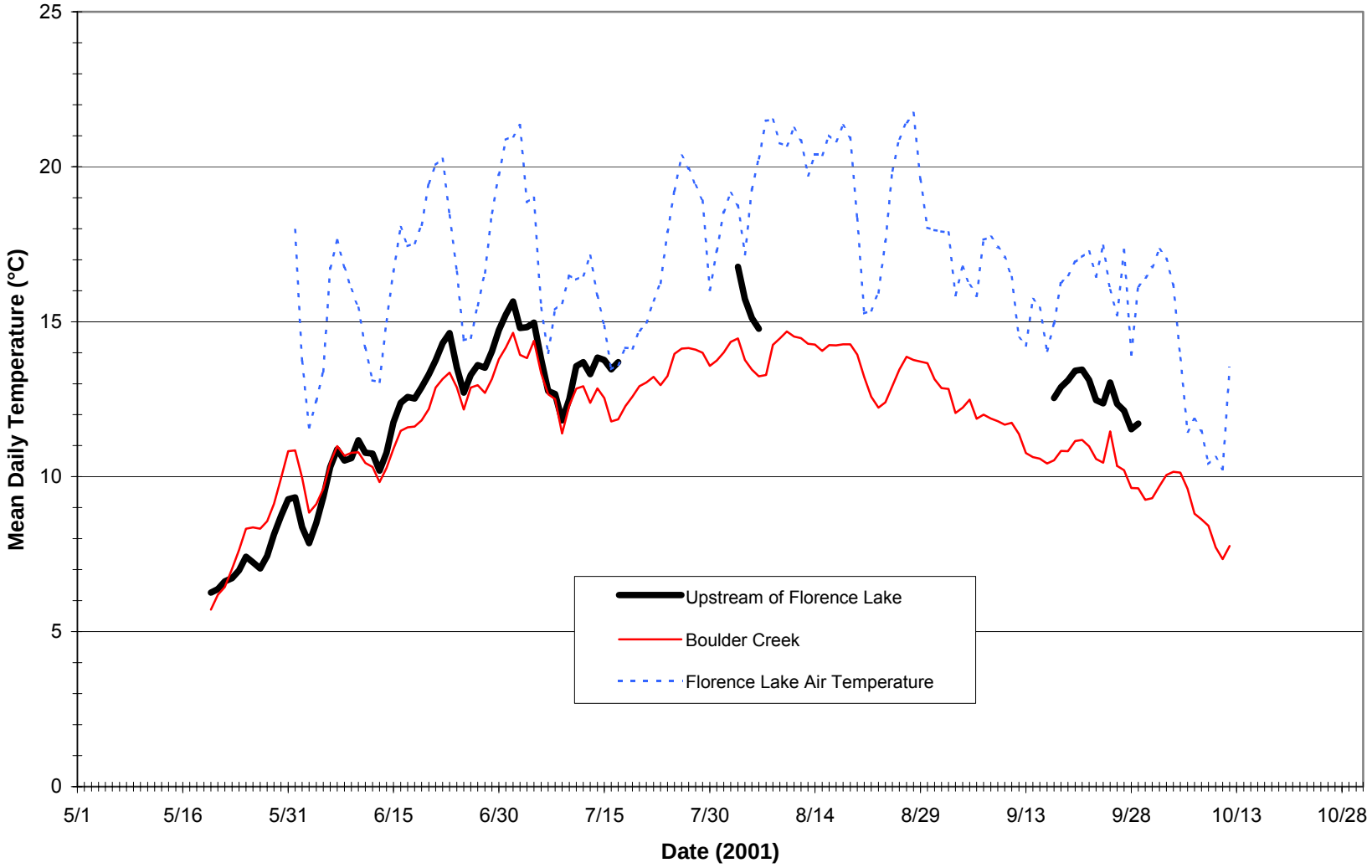


Figure CAWG 5-8. South Fork San Joaquin River Upstream of Florence Lake and Boulder Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures, 2001 (cont).

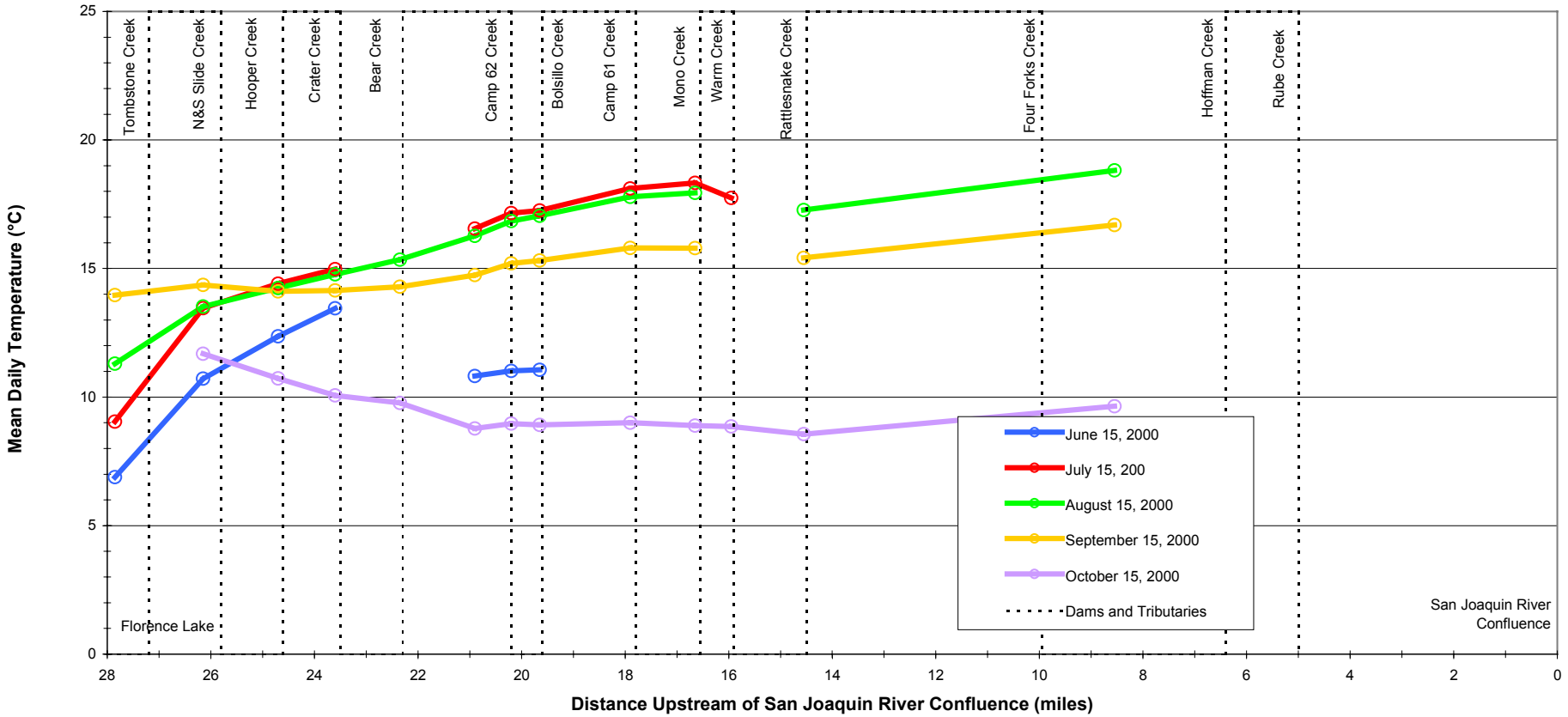


Figure CAWG-5-9. South Fork San Joaquin River Longitudinal Mid-Month Mean Daily Temperature Profile by Site, 2000.

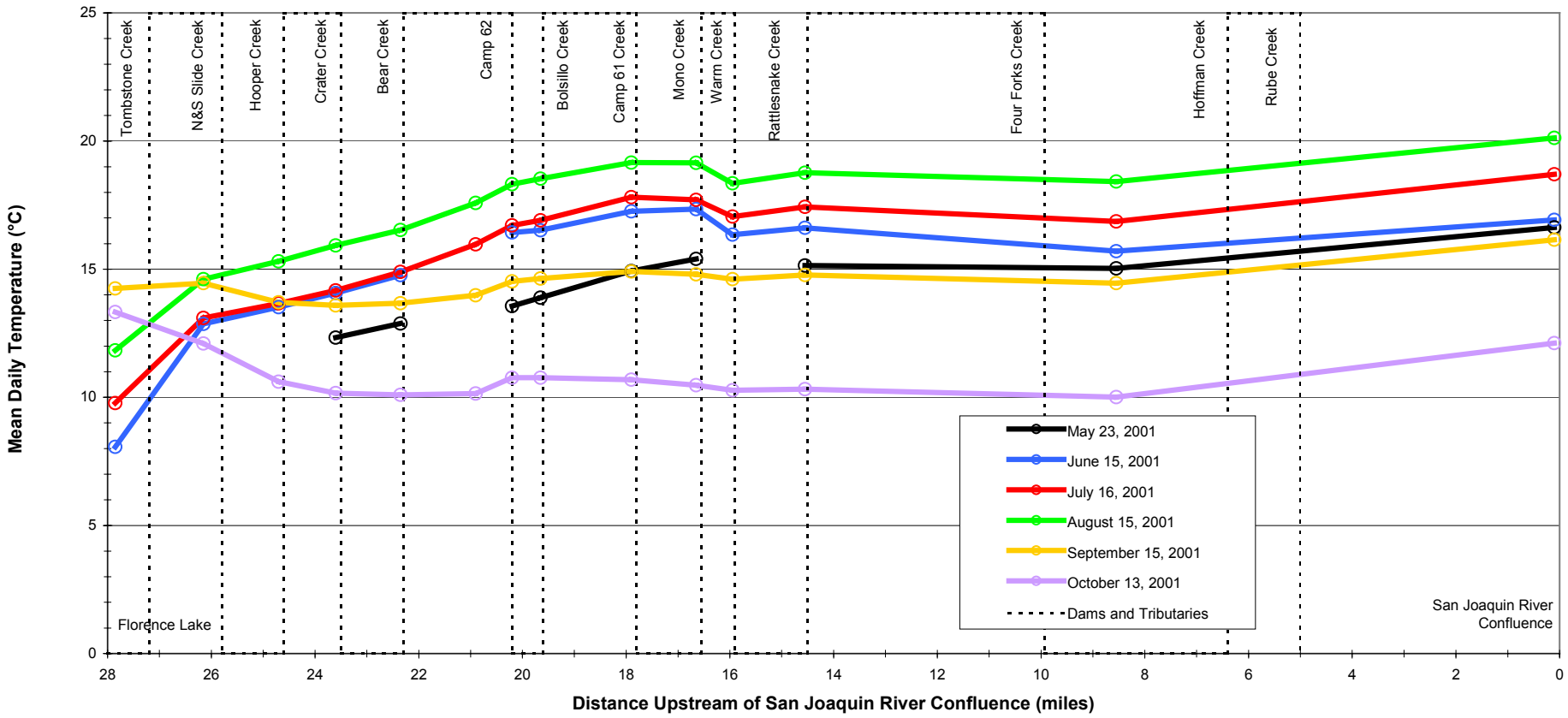


Figure CAWG-5-10. South Fork San Joaquin River Longitudinal Mid-Month Mean Daily Temperature Profile by Site, 2001.

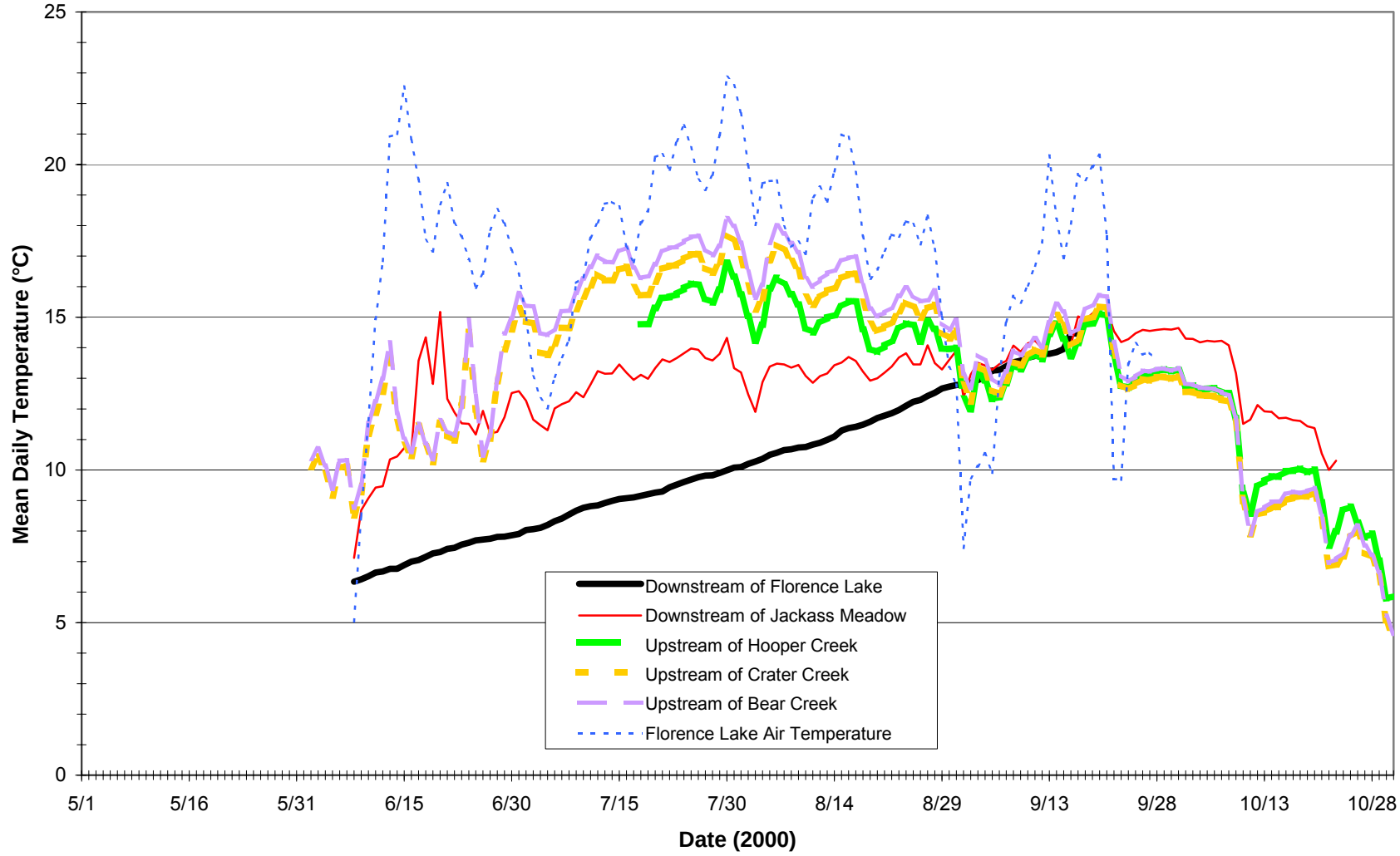


Figure CAWG 5-11. South Fork San Joaquin River Florence Lake to Upstream of Bear Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures, 2000.

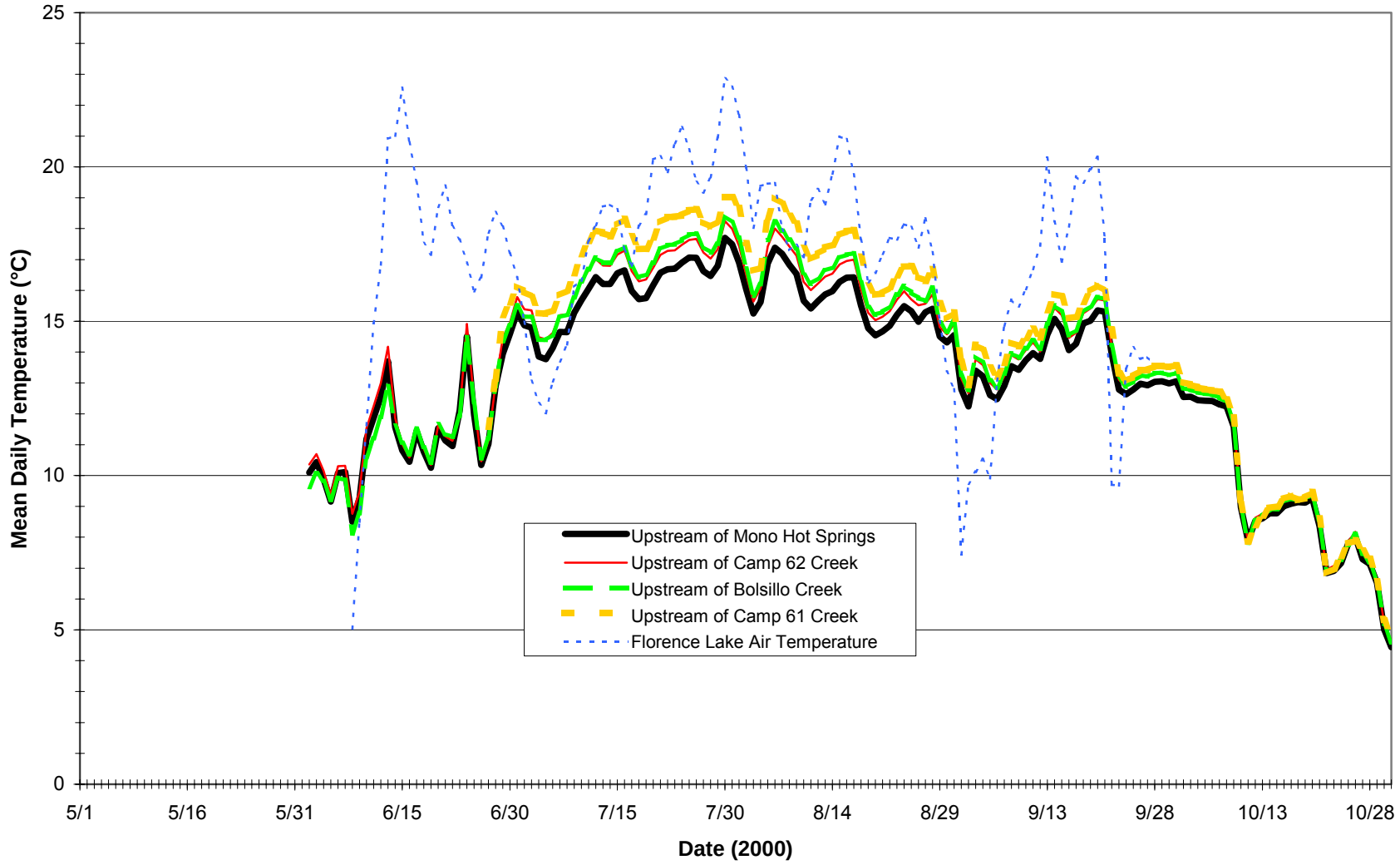


Figure CAWG 5-12. South Fork San Joaquin River Bear Creek to Upstream of Mono Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures, 2000.

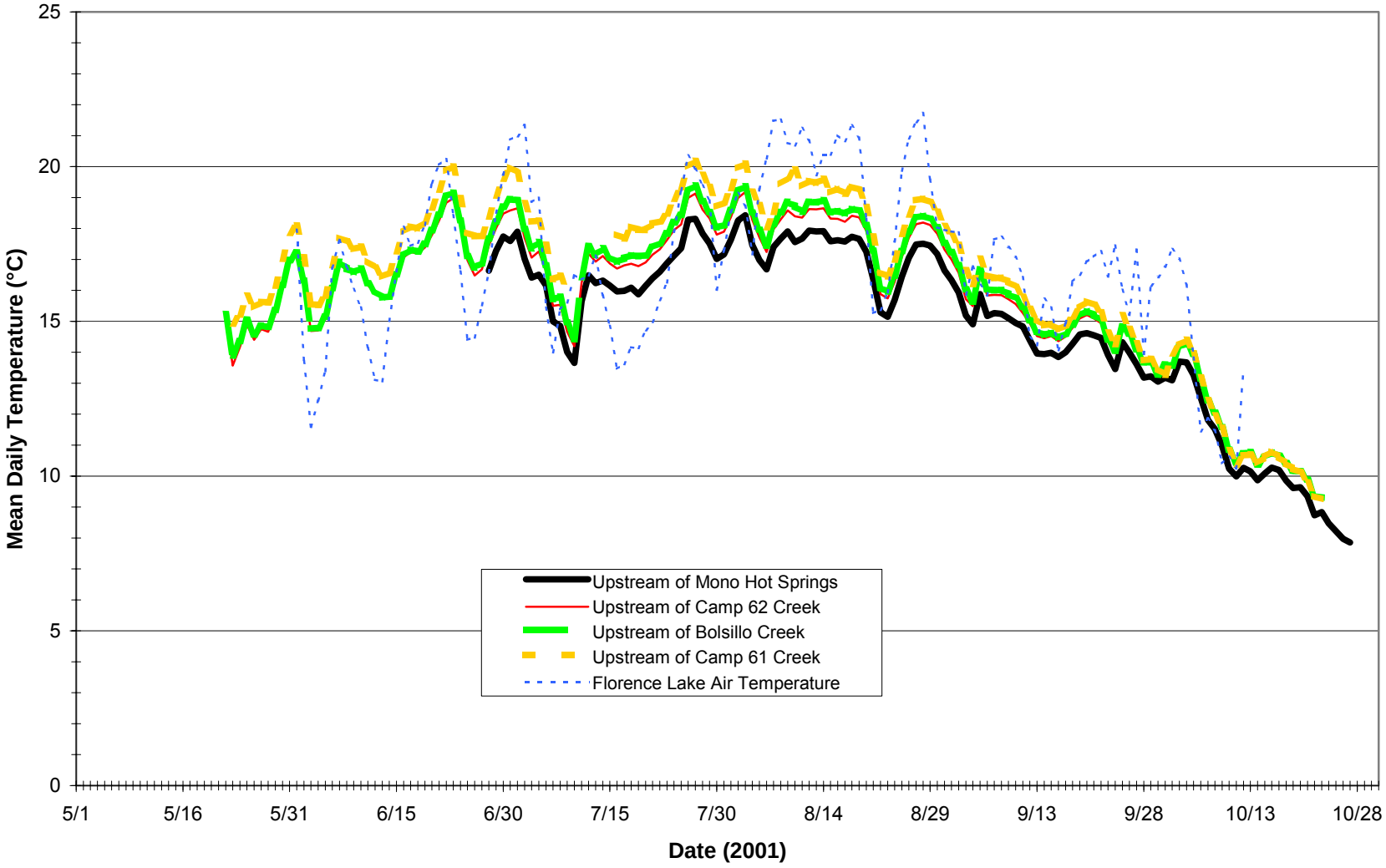


Figure CAWG 5-12. South Fork San Joaquin River Bear Creek to Upstream of Mono Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures, 2001 (cont).

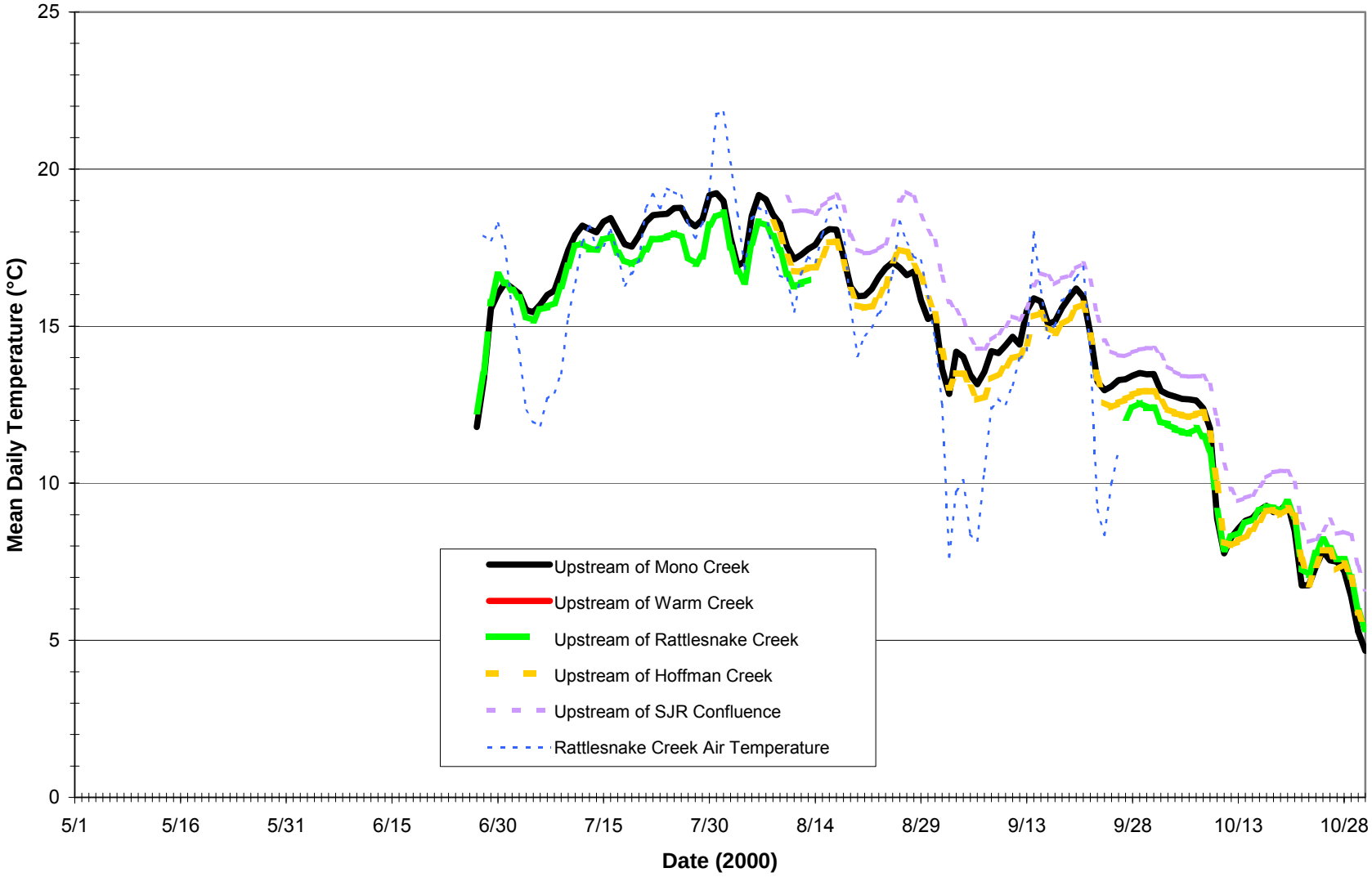


Figure CAWG 5-13. South Fork San Joaquin River Mono Creek to Upstream of San Joaquin River Confluence Mean Daily Water Temperatures and Rattlesnake Creek Mean Daily Air Temperatures, 2000.

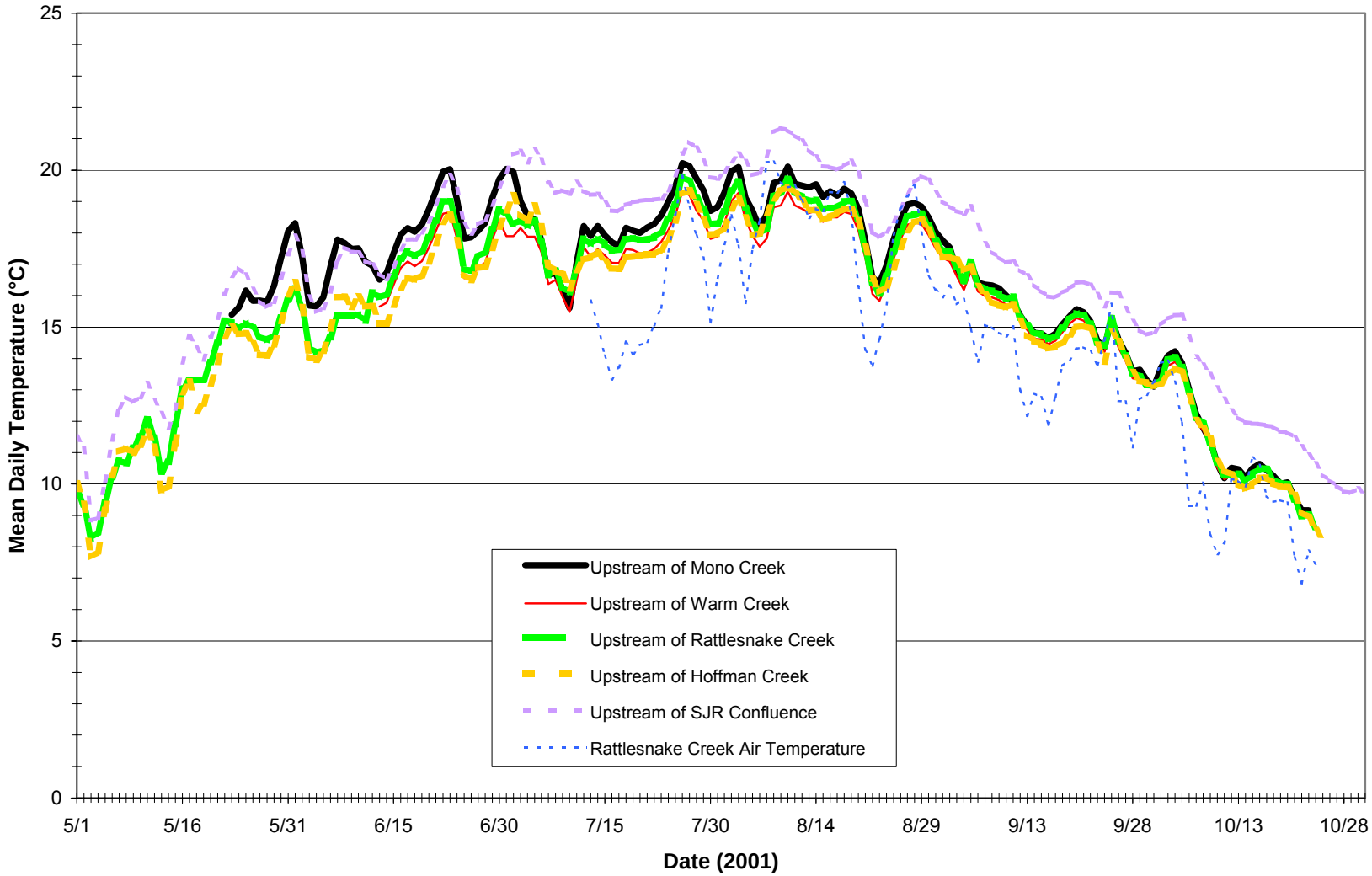


Figure CAWG 5-13. South Fork San Joaquin River Mono Creek to Upstream of San Joaquin River Confluence Mean Daily Water Temperatures and Rattlesnake Creek Mean Daily Air Temperatures, 2001 (cont).

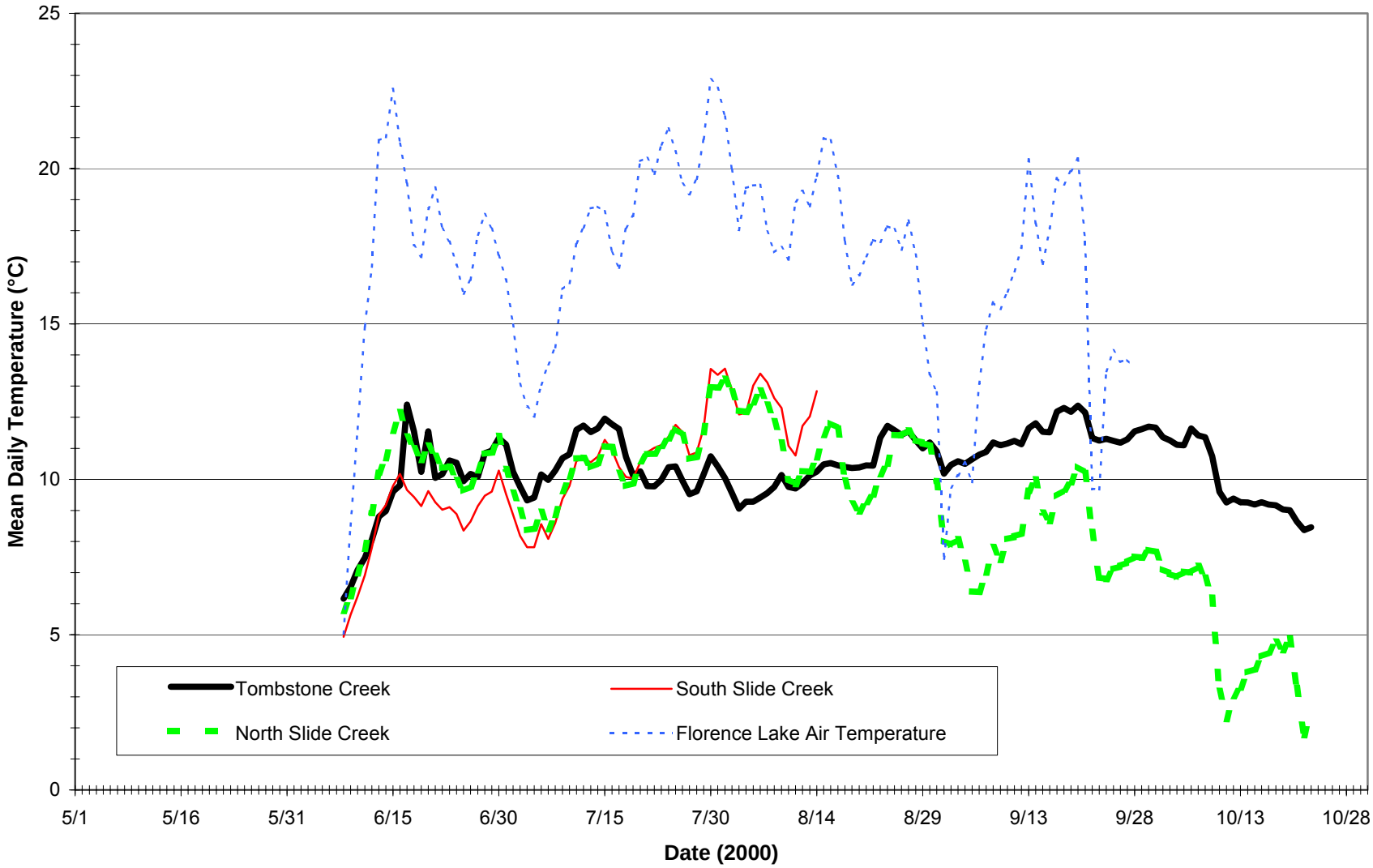


Figure CAWG 5-14. South Fork San Joaquin River Diverted (Non-operational) Tributaries Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures, 2000.

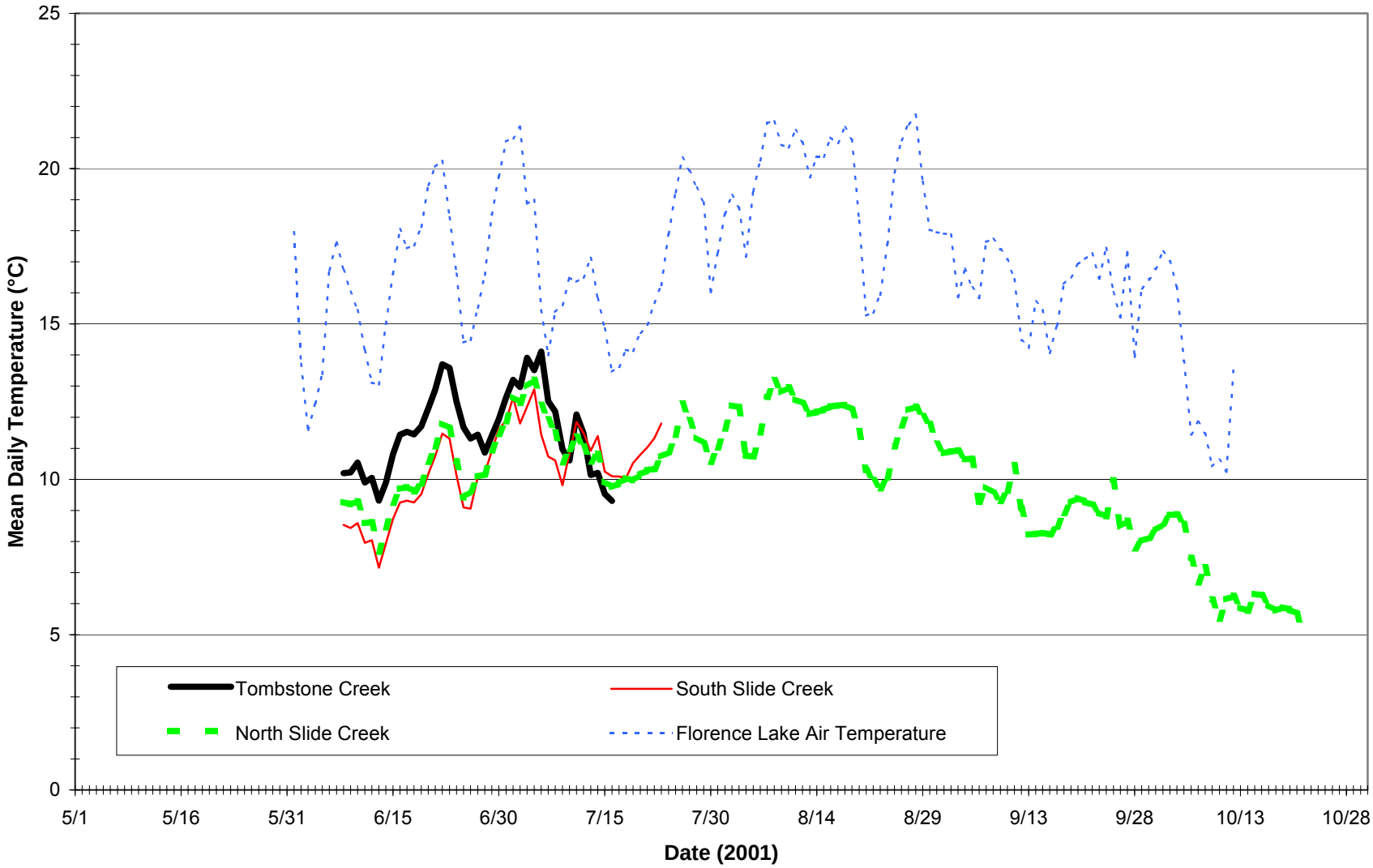


Figure CAWG 5-14. South Fork San Joaquin River Diverted (Non-operational) Tributaries Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures, 2001 (cont).

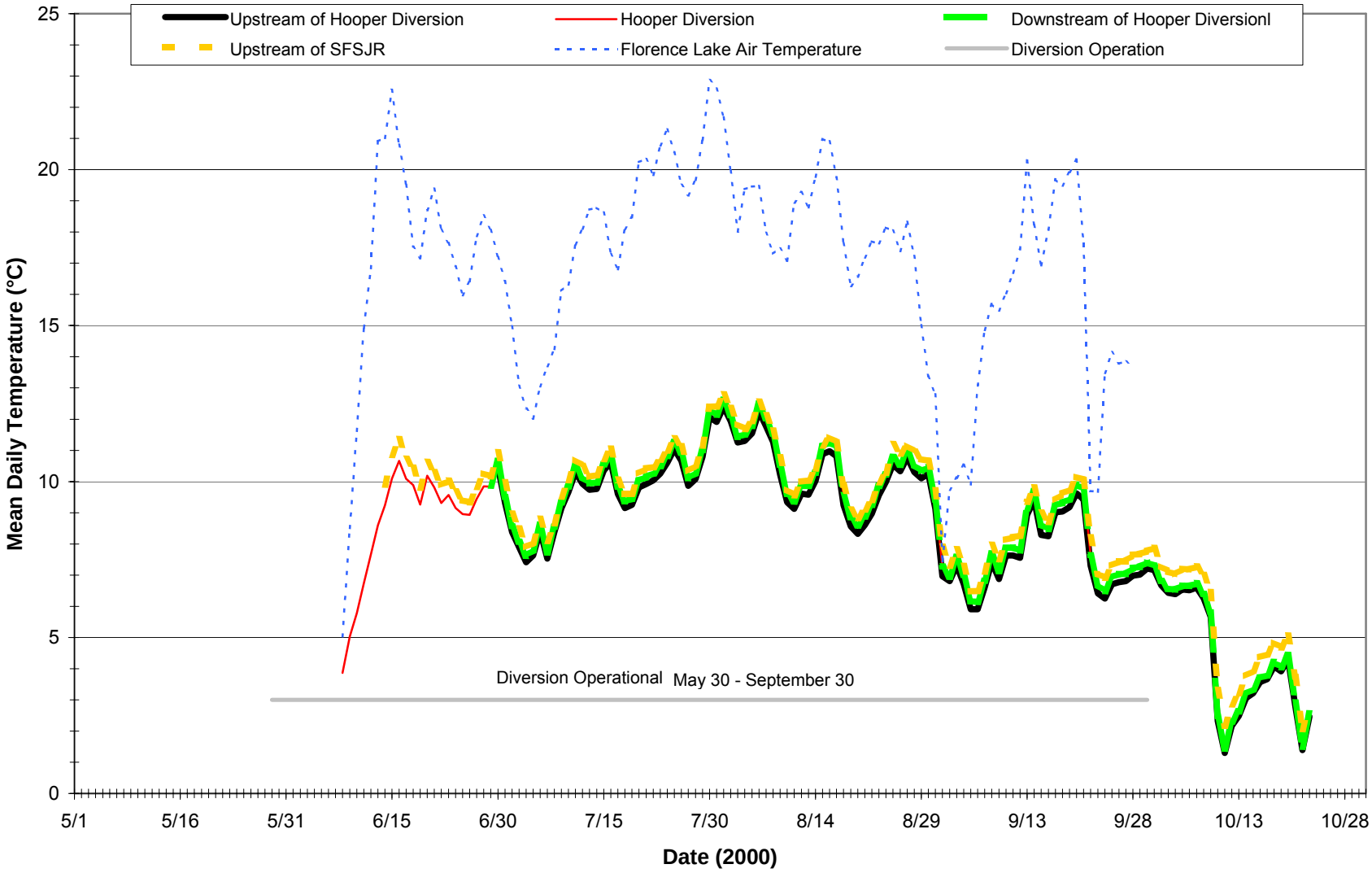


Figure CAWG 5-15. Hooper Creek Mean Daily Water Temperatures and Florence Mean Daily Air Temperatures with Diversion Operations, 2000.

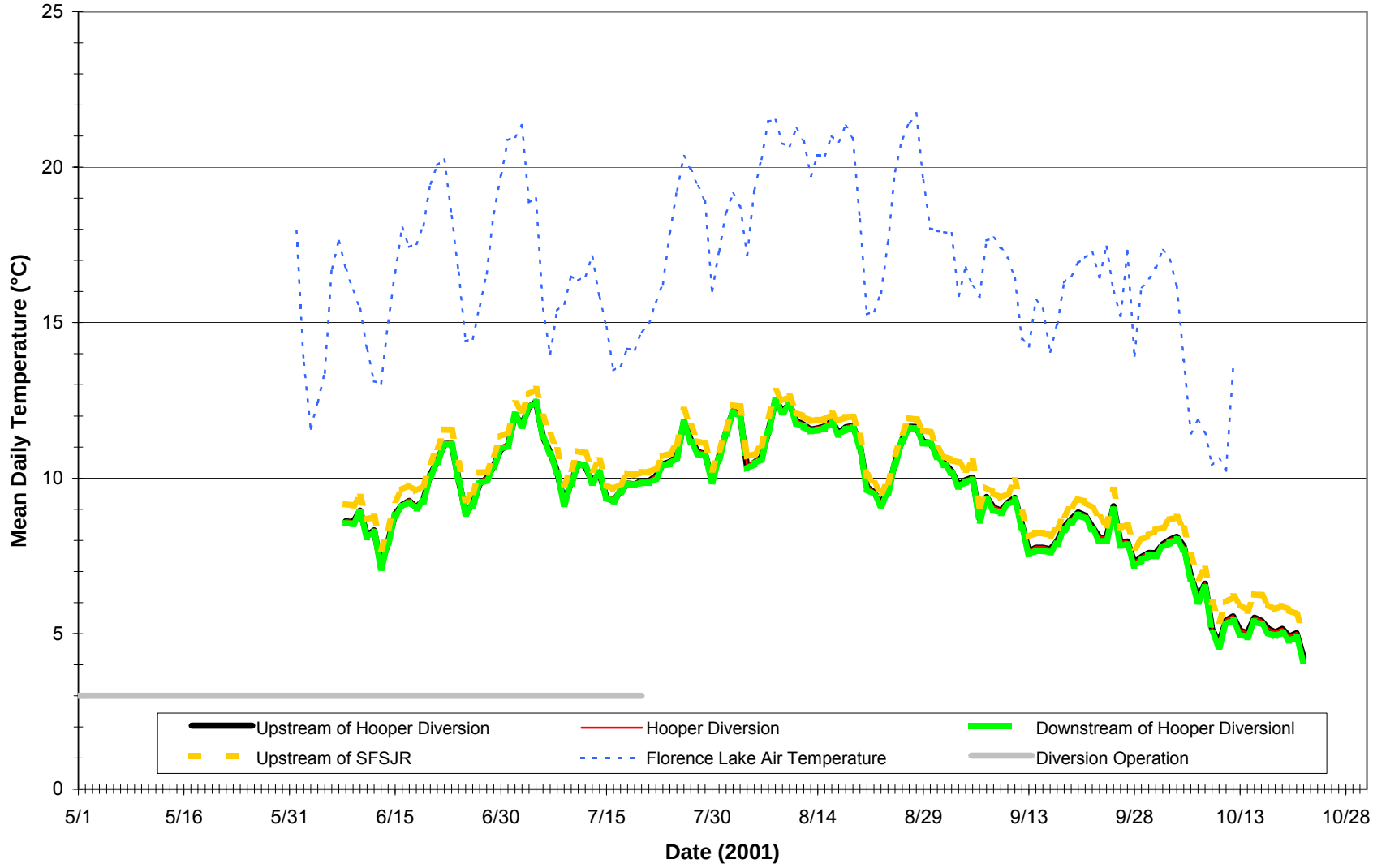


Figure CAWG 5-15. Hooper Creek Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures with Diversion Operations, 2001 (cont).

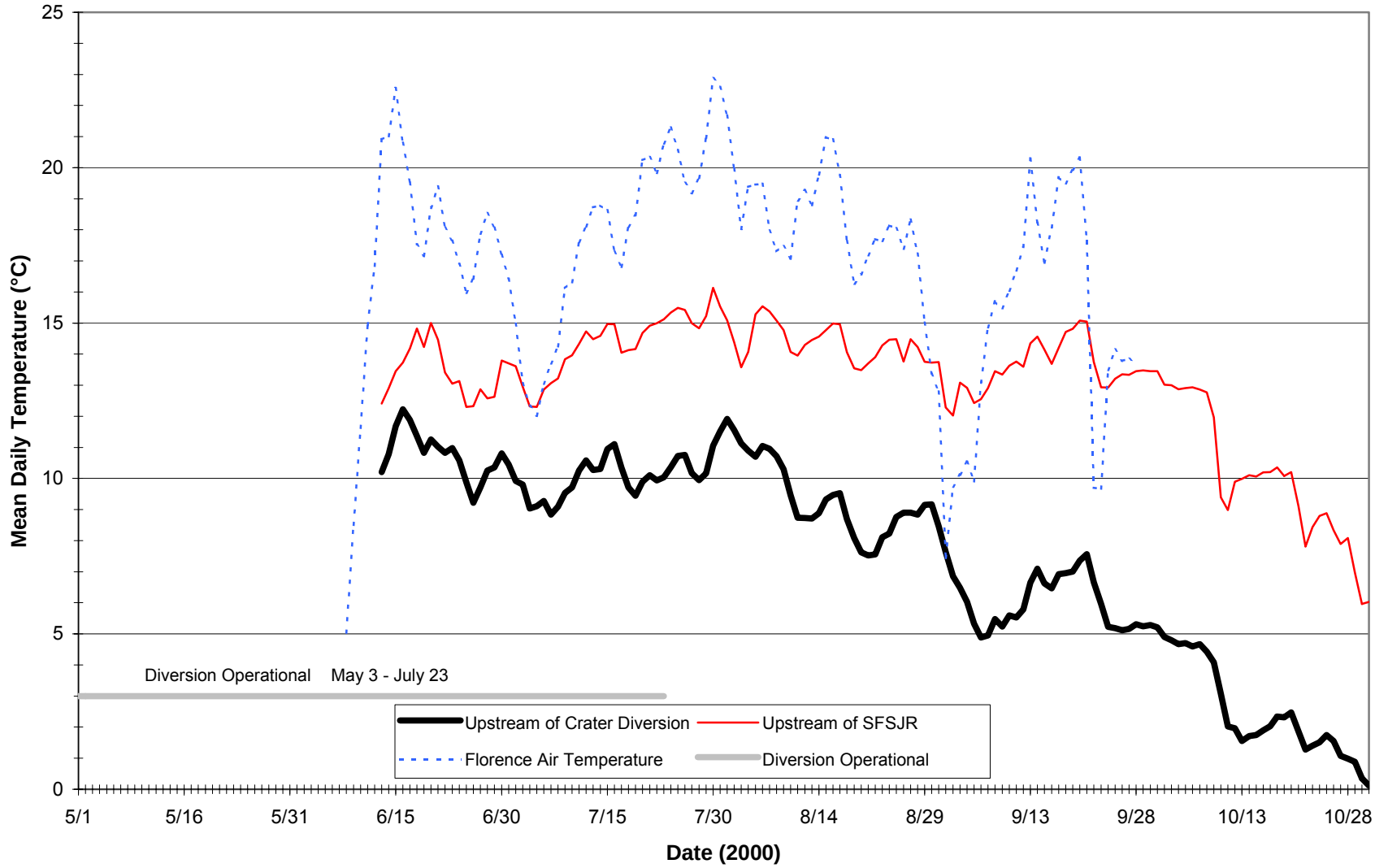


Figure CAWG 5-16. Crater Creek Mean Daily Water Temperatures and Florence Mean Daily Air Temperatures with Diversion Operations, 2000.

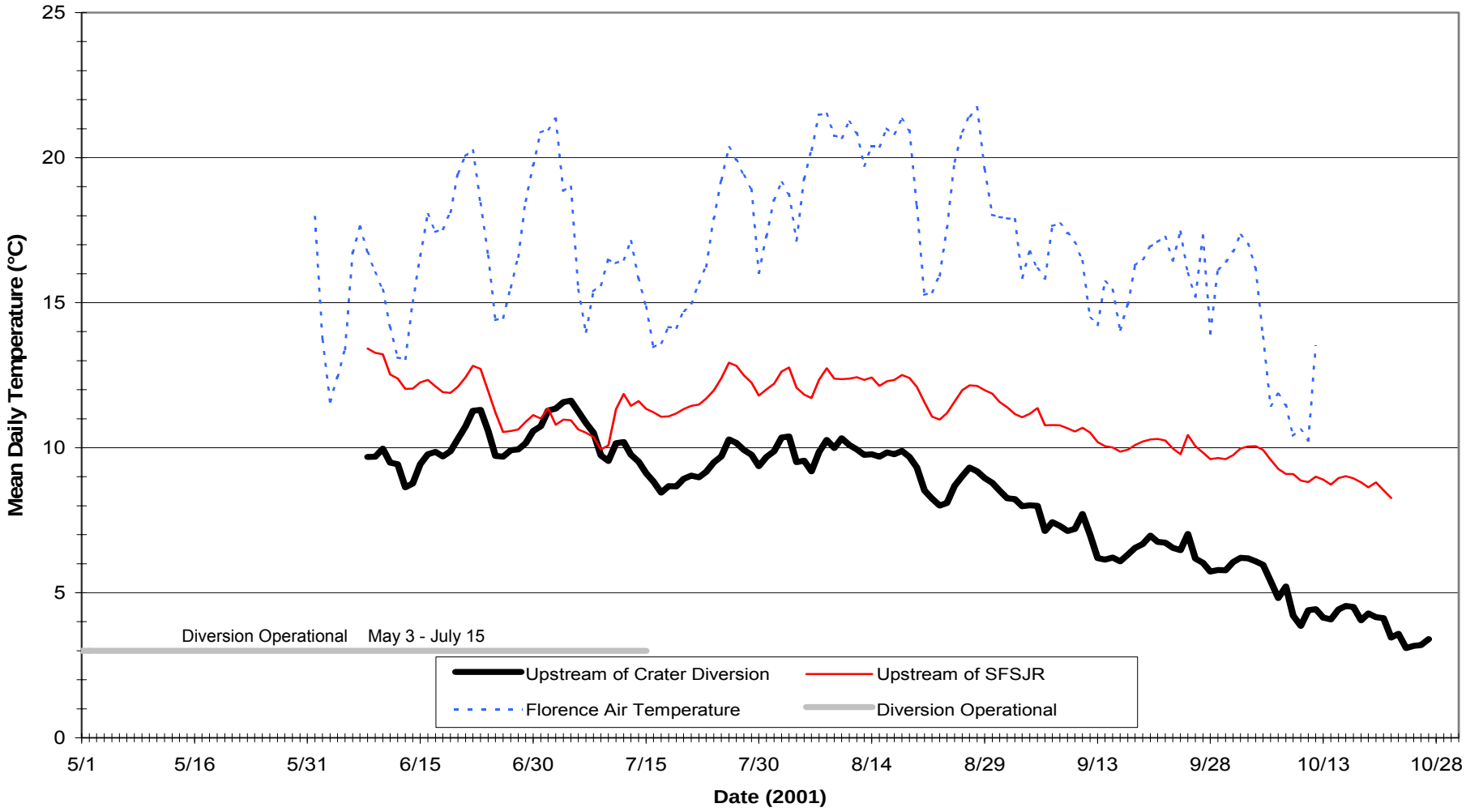


Figure CAWG 5-16. Crater Creek Mean Daily Water Temperatures and Florence Mean Daily Air Temperatures with Diversion Operations, 2001 (cont).

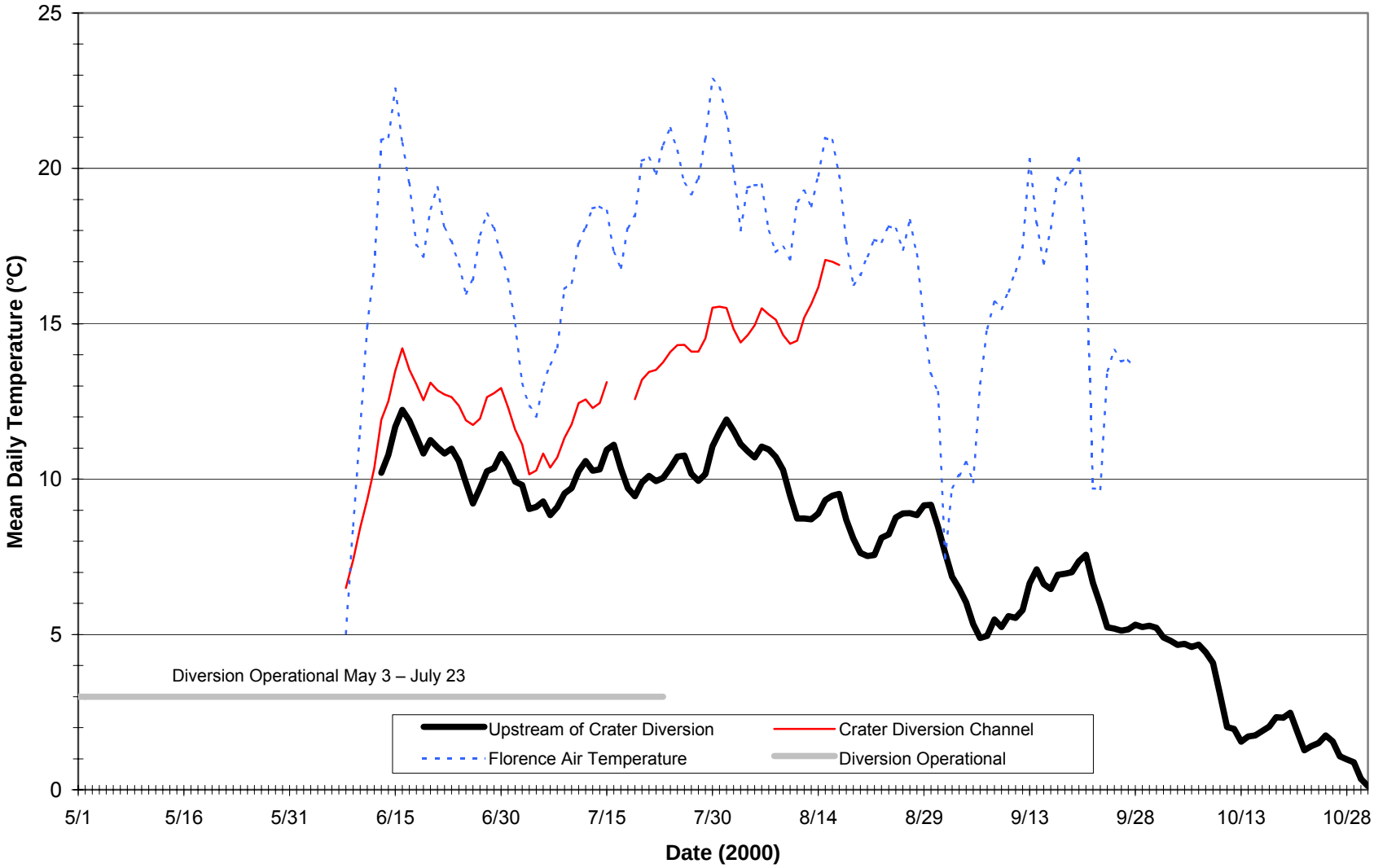


Figure CAWG 5-17. Crater Creek Diversion Channel Mean Daily Water Temperatures and Florence Mean Daily Air Temperatures with Diversion Operations, 2000.

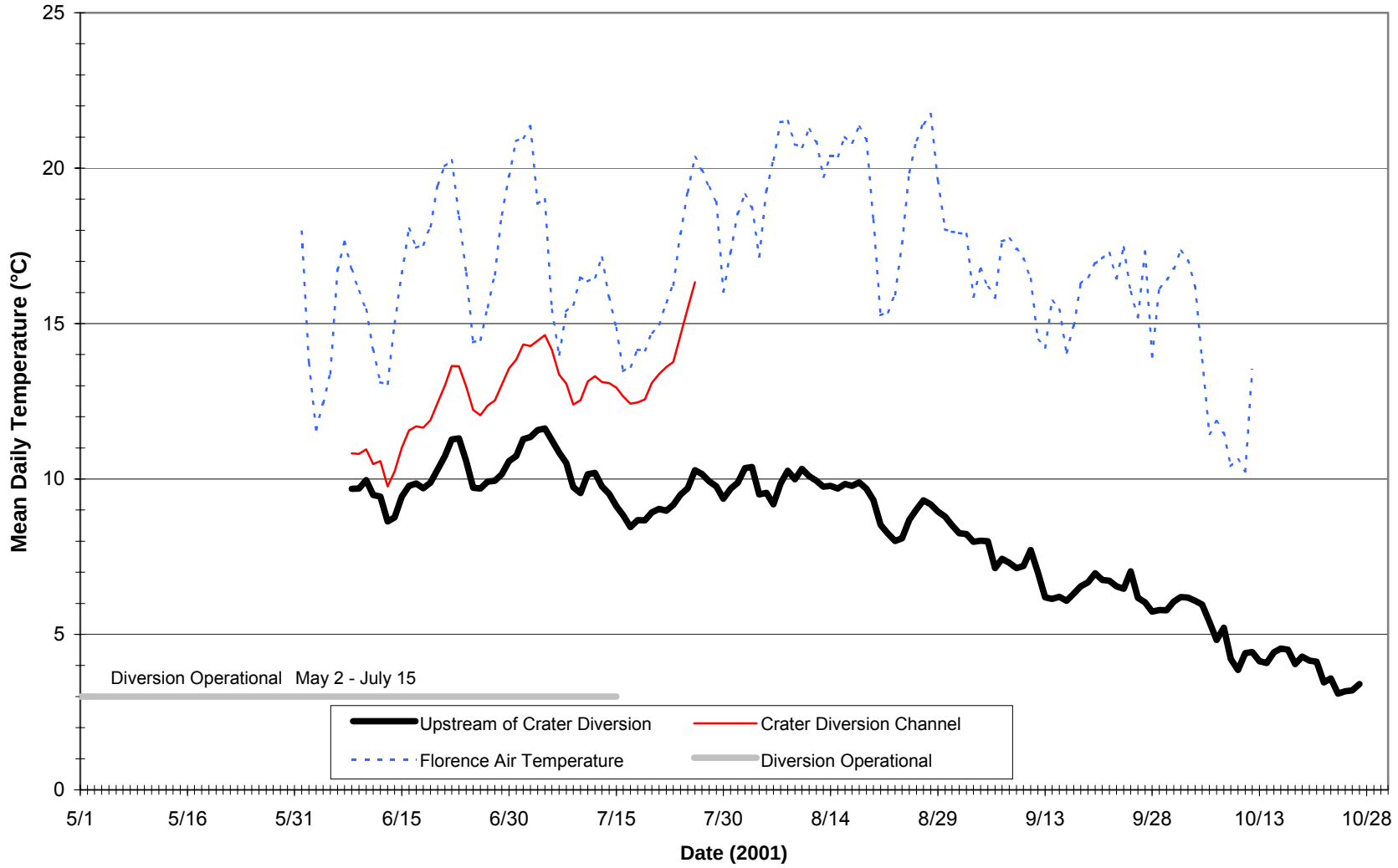


Figure CAWG 5-17. Crater Creek Diversion Channel Mean Daily Water Temperatures and Florence Mean Daily Air Temperatures, 2001 (cont).

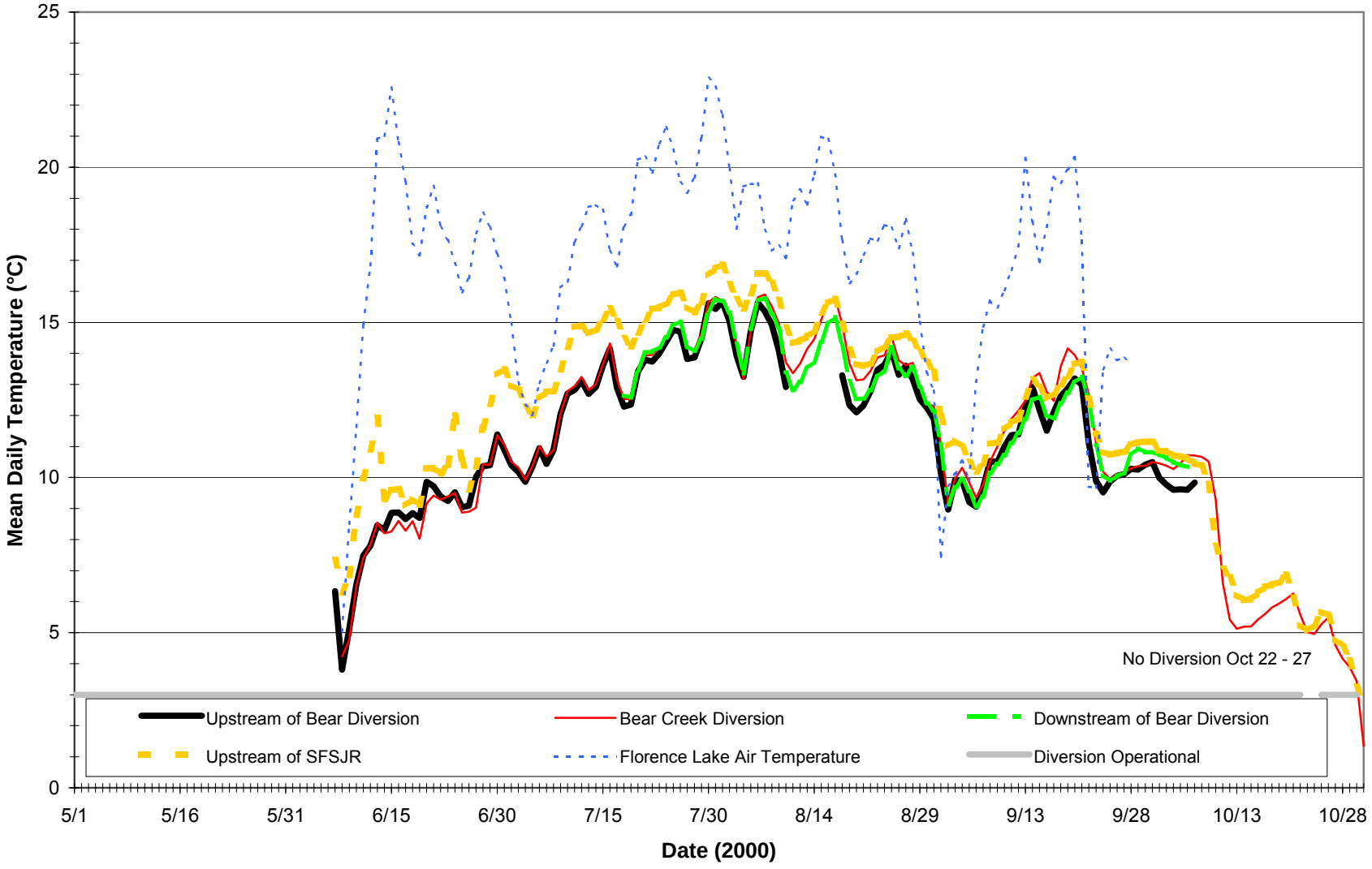


Figure CAWG 5-18. Bear Creek Mean Daily Water Temperatures and Florence Lake Powerhouse Mean Daily Air Temperatures with Diversion Operation, 2000.

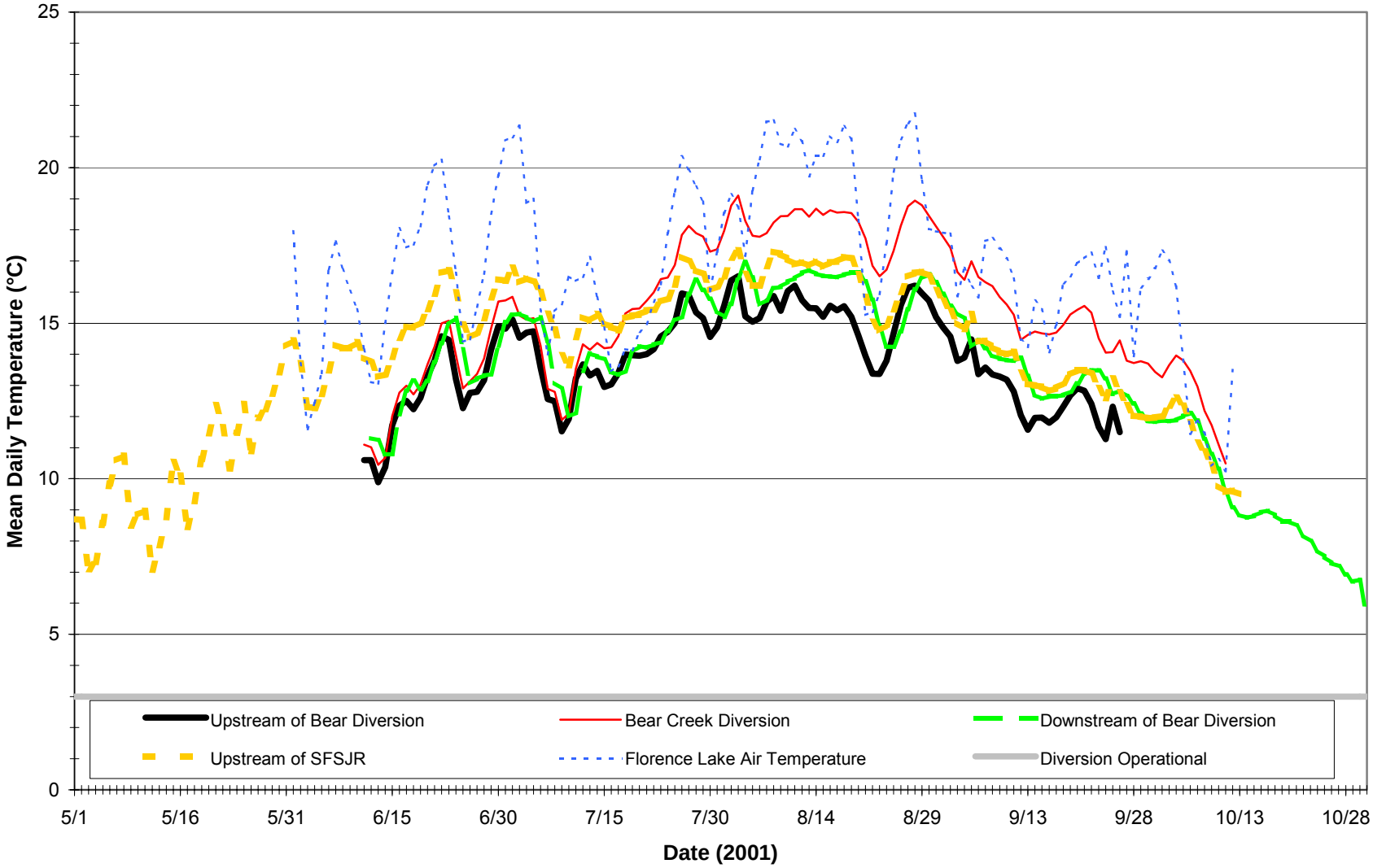


Figure CAWG 5-18. Bear Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperature with Diversion Operation, 2001 (cont).

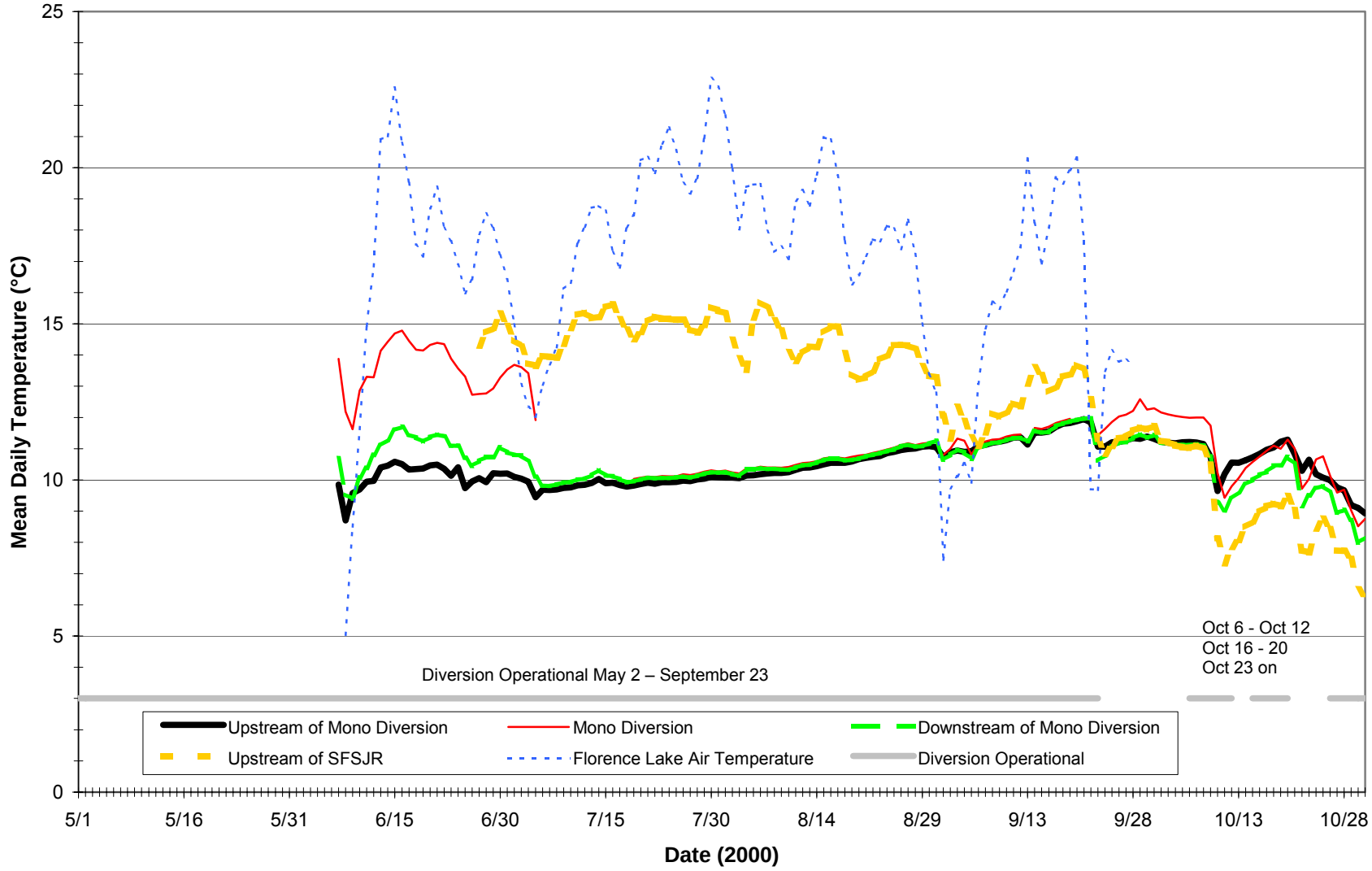


Figure CAWG 5-19. Mono Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures with Diversion Operations, 2000.

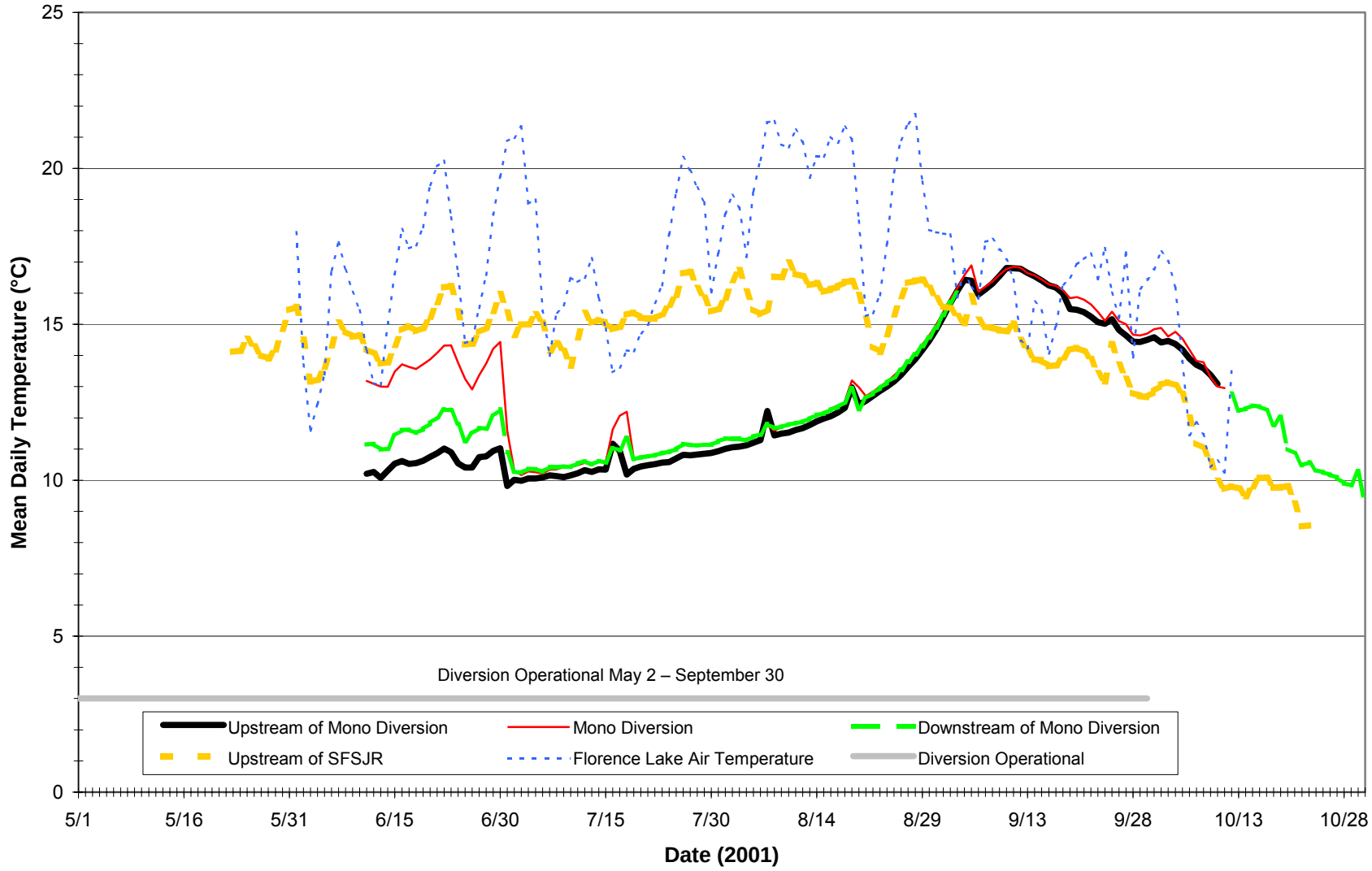


Figure CAWG 5-19. Mono Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures with Diversion Operations, 2001 (cont).

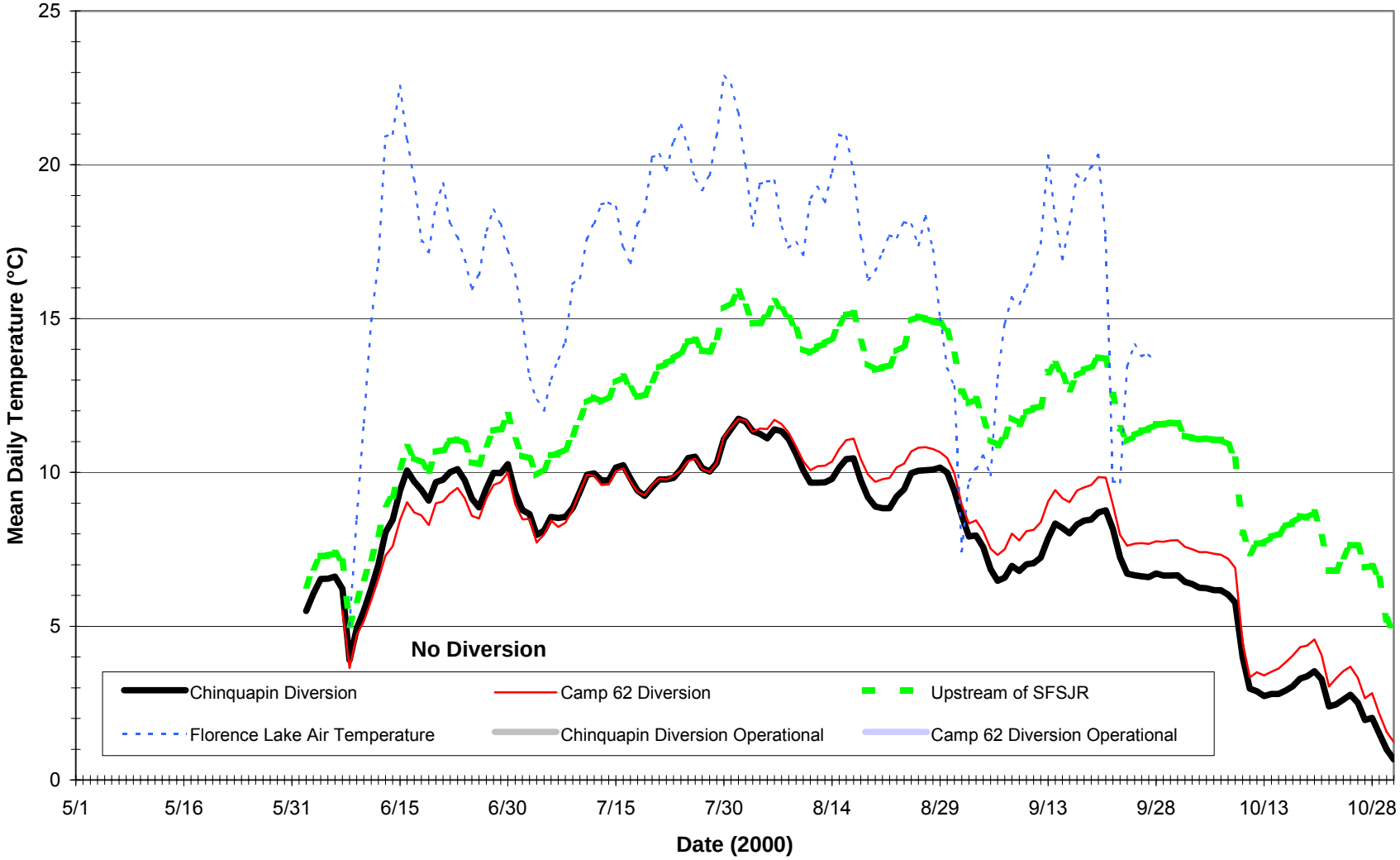


Figure CAWG 5-20. Camp 62 and Chinquapin Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures with Diversion Operations, 2000.

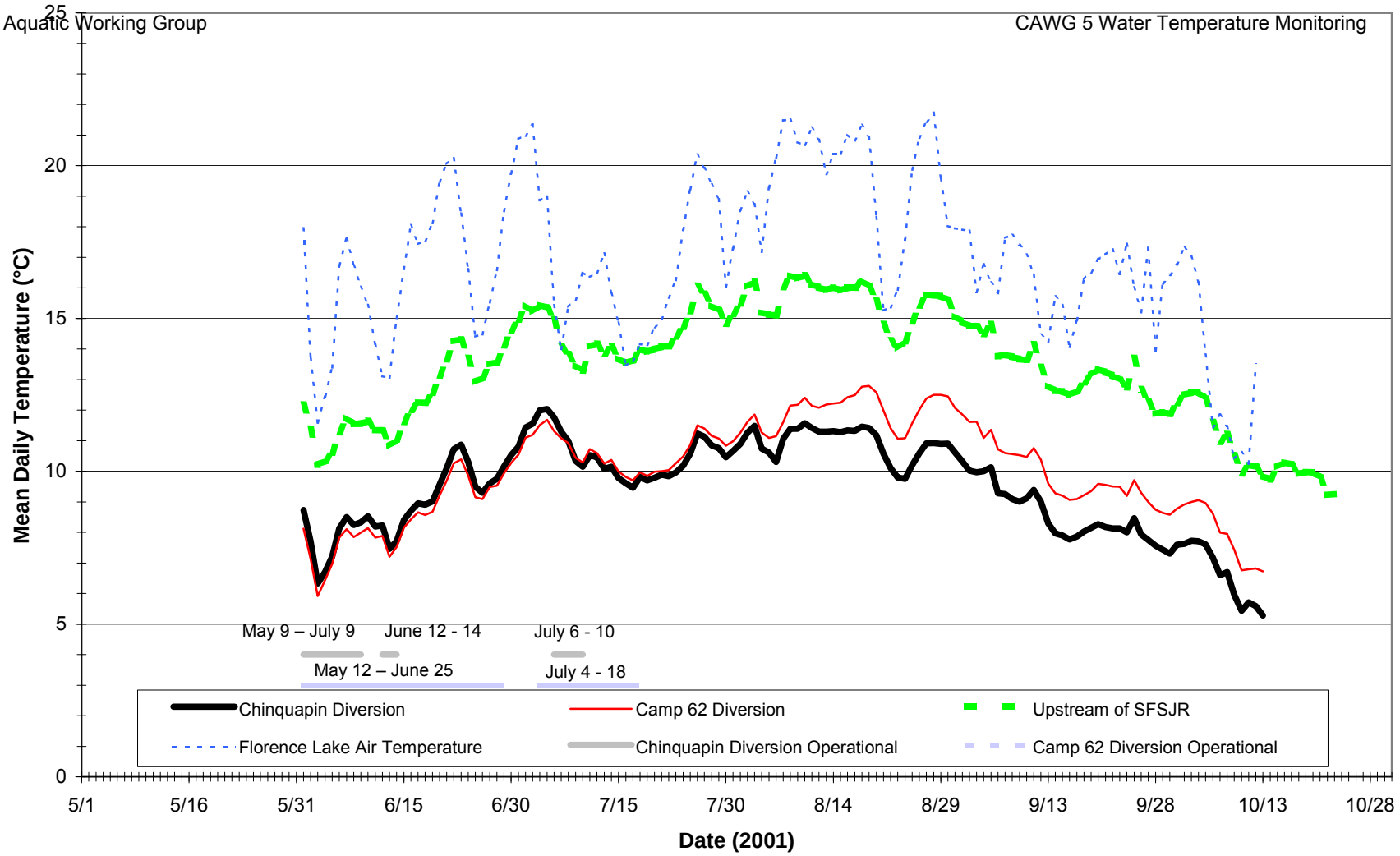


Figure CAWG 5-20. Camp 62 and Chinquapin Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures with Diversion Operations, 2001 (cont).

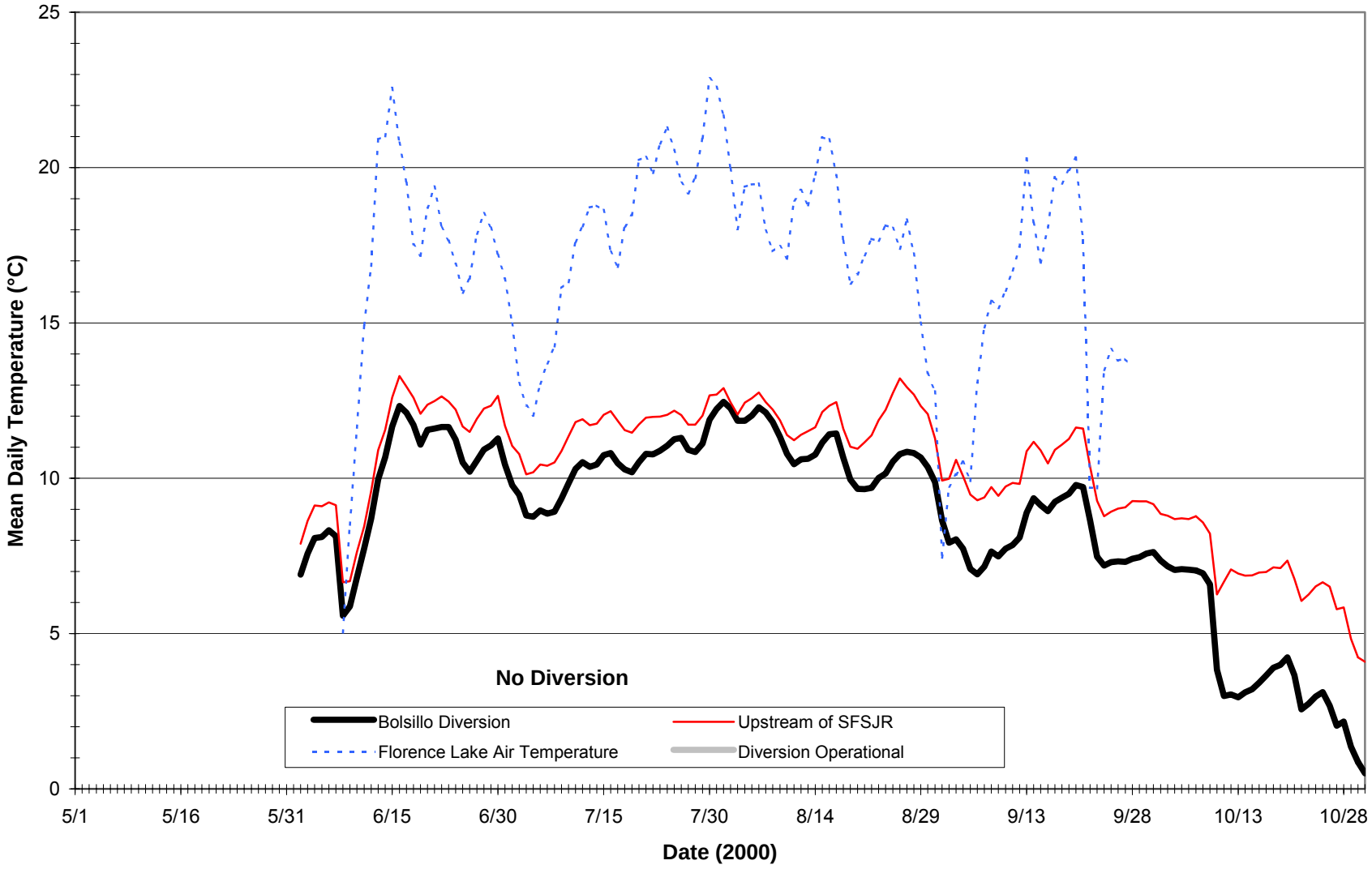


Figure CAWG 5-21. Bolsillo Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures with Diversion Operations, 2000.

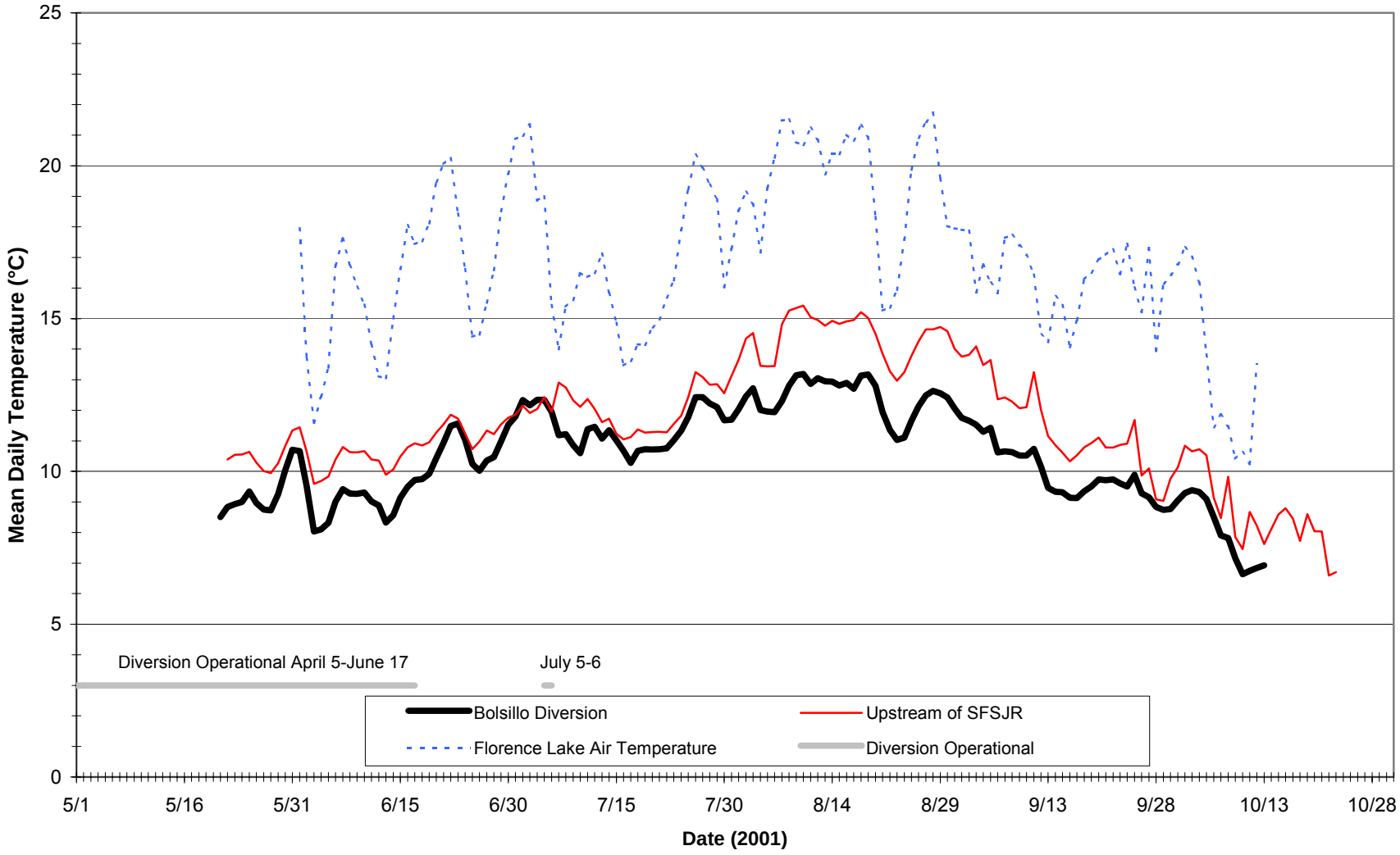


Figure CAWG 5-21. Bolsillo Creek Mean Daily Water Temperatures and Florence Lake Mean Daily Air Temperatures and Diversion Operations, 2001 (cont).

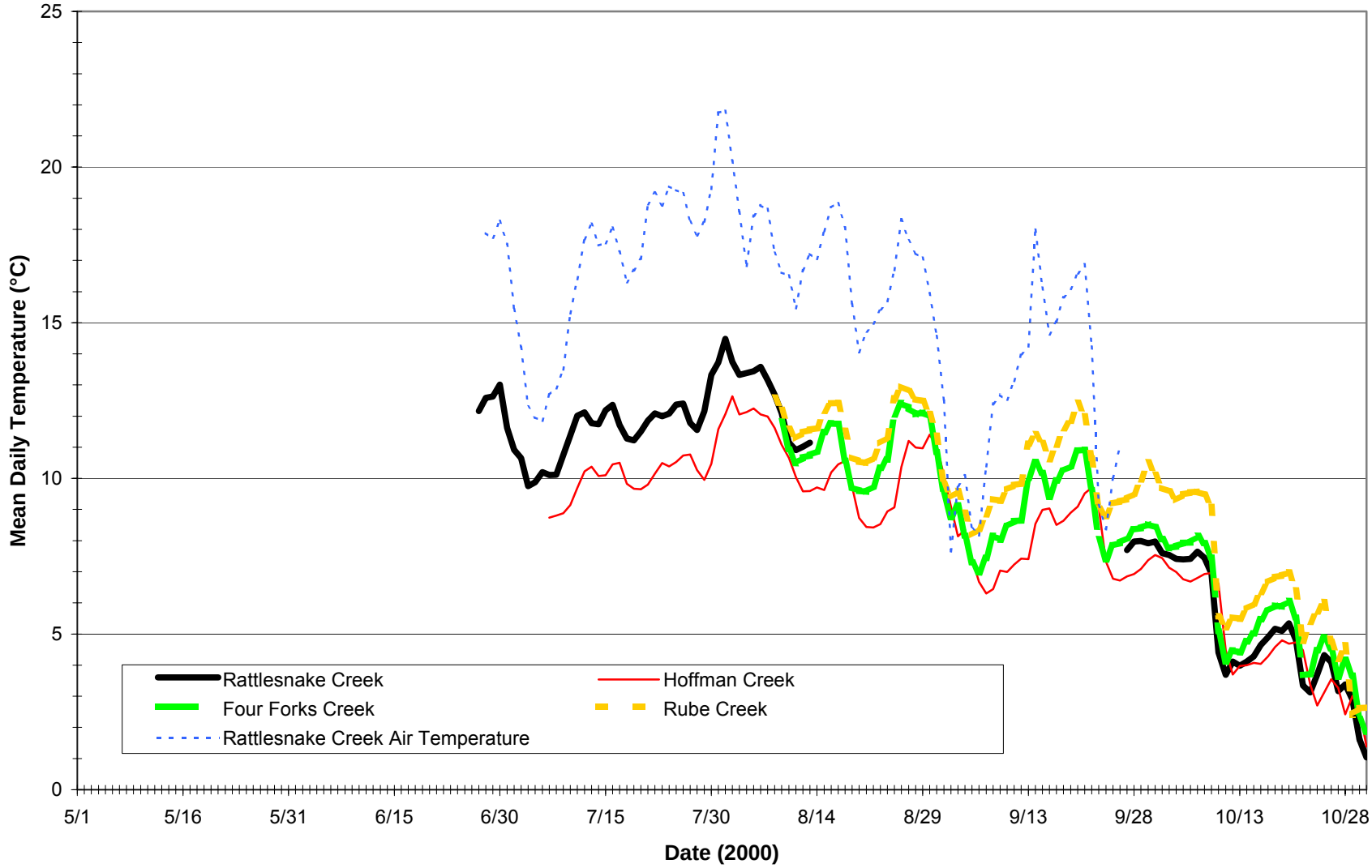


Figure CAWG 5-22. South Fork Dan Joaquin River Undiverted Tributaries Mean Daily Water Temperatures and Rattlesnake Creek Mean Daily Air Temperatures, 2000.

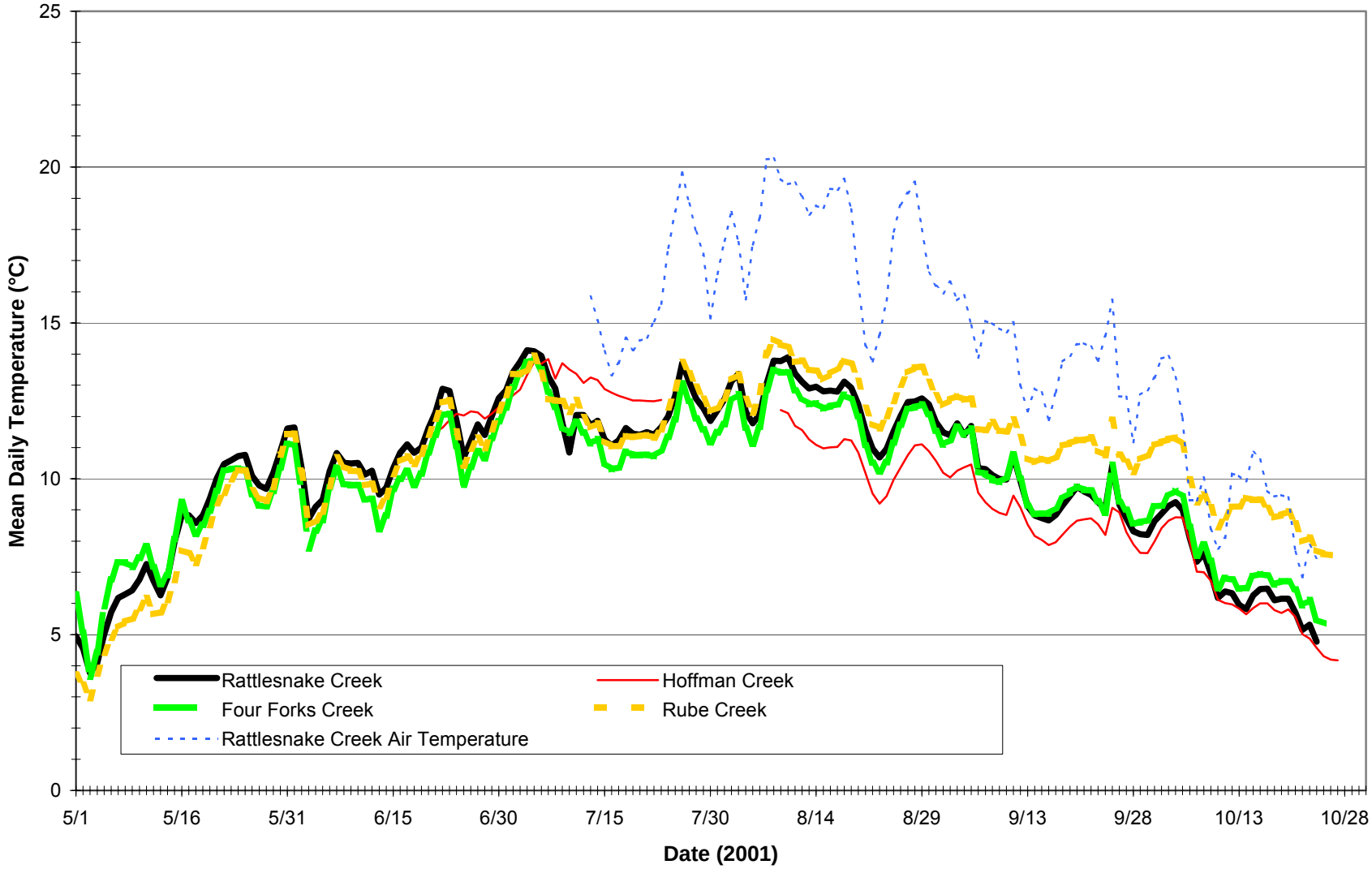


Figure CAWG 5-22. South Fork San Joaquin River Undiverted Tributaries Mean Daily Water Temperatures and Rattlesnake Creek Mean Daily Air Temperatures, 2001 (cont).

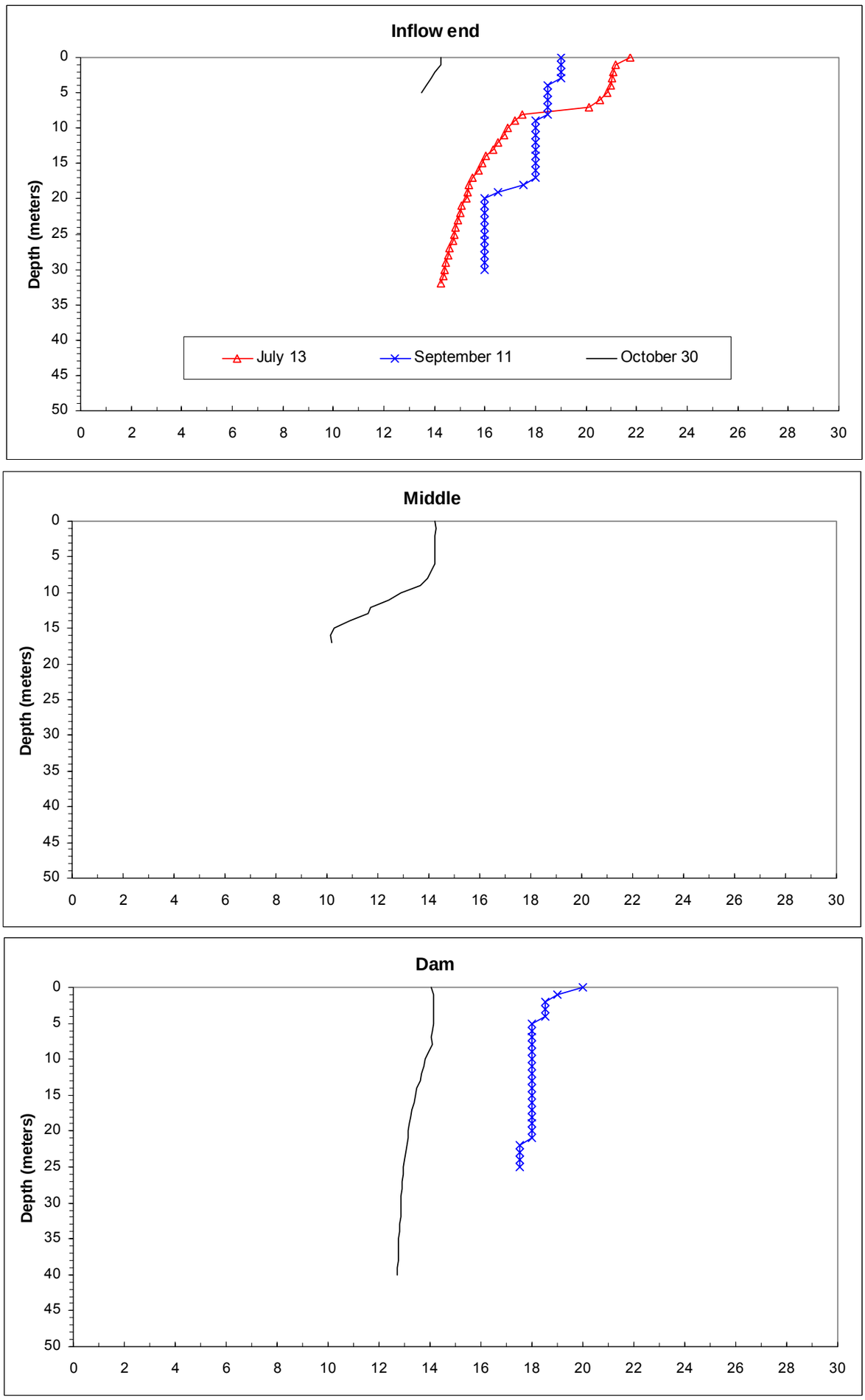


Figure CAWG 5-23. Mammoth Pool Reservoir Water Temperature Profiles, 2000.

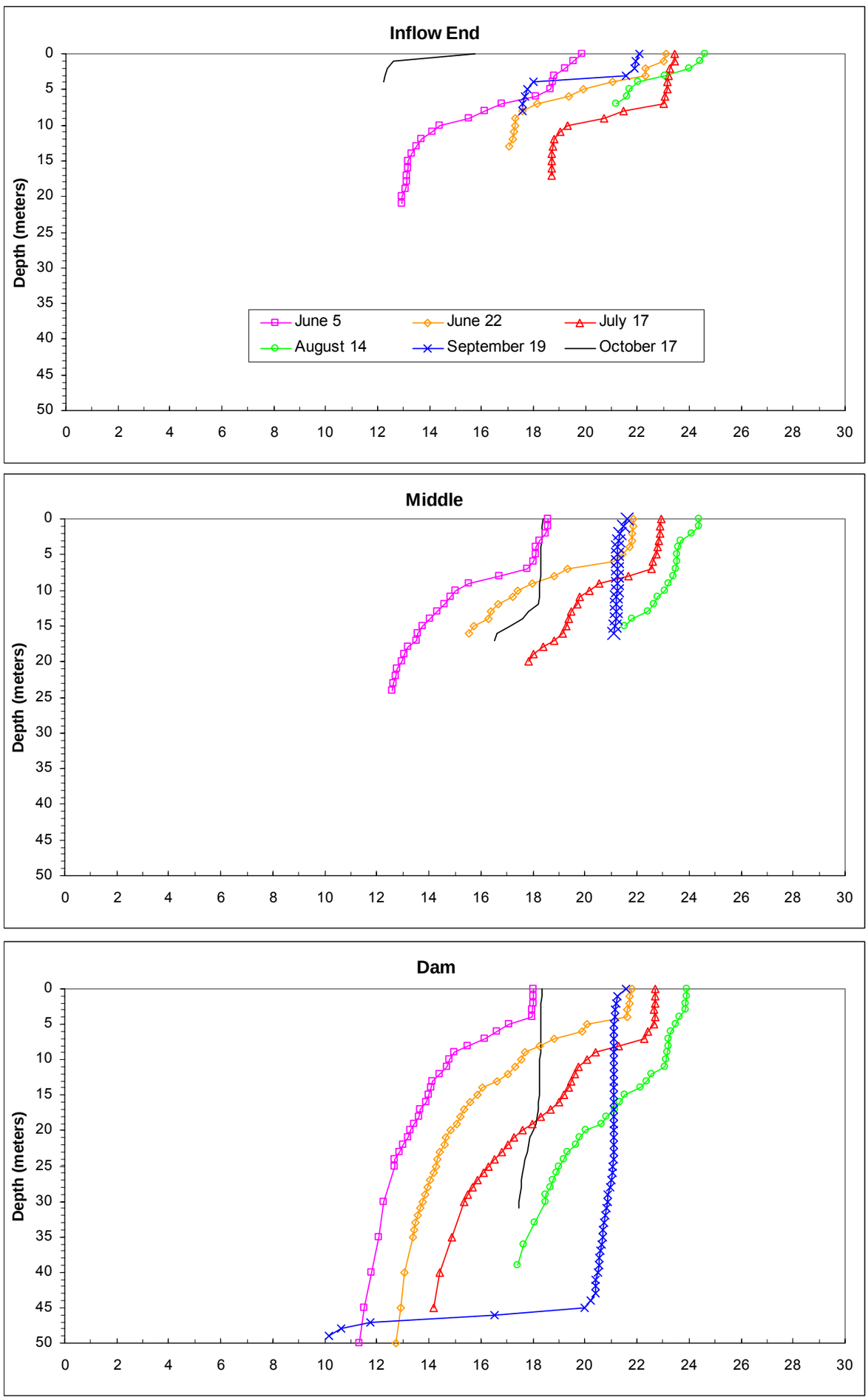


Figure CAWG 5-24. Mammoth Pool Reservoir Water Temperature Profiles, 2001.

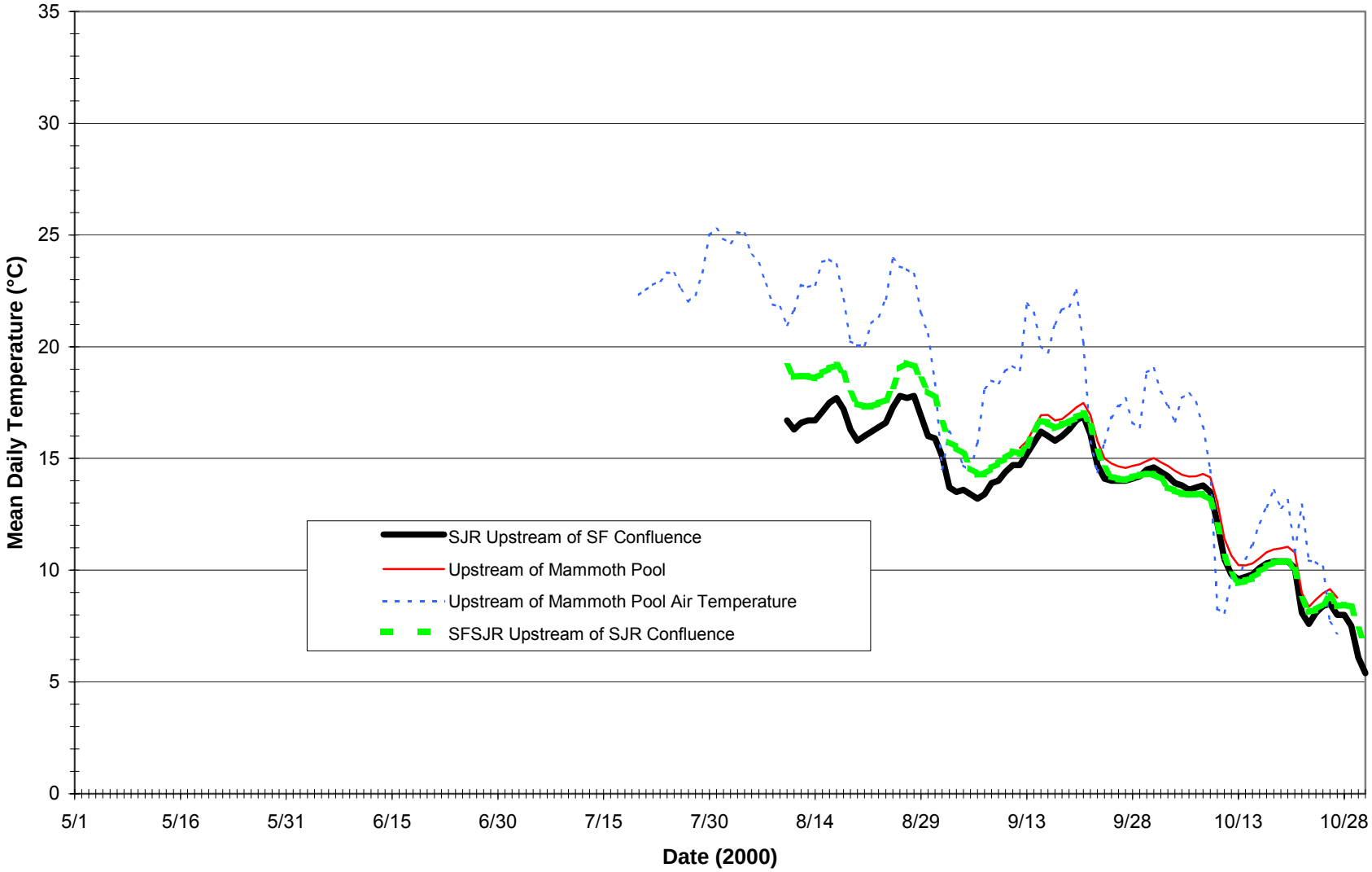


Figure CAWG 5-25. San Joaquin River Upstream of Mammoth Pool Mean Daily Water Temperatures and Upstream of Mammoth Pool Mean Daily Air Temperatures, 2000.

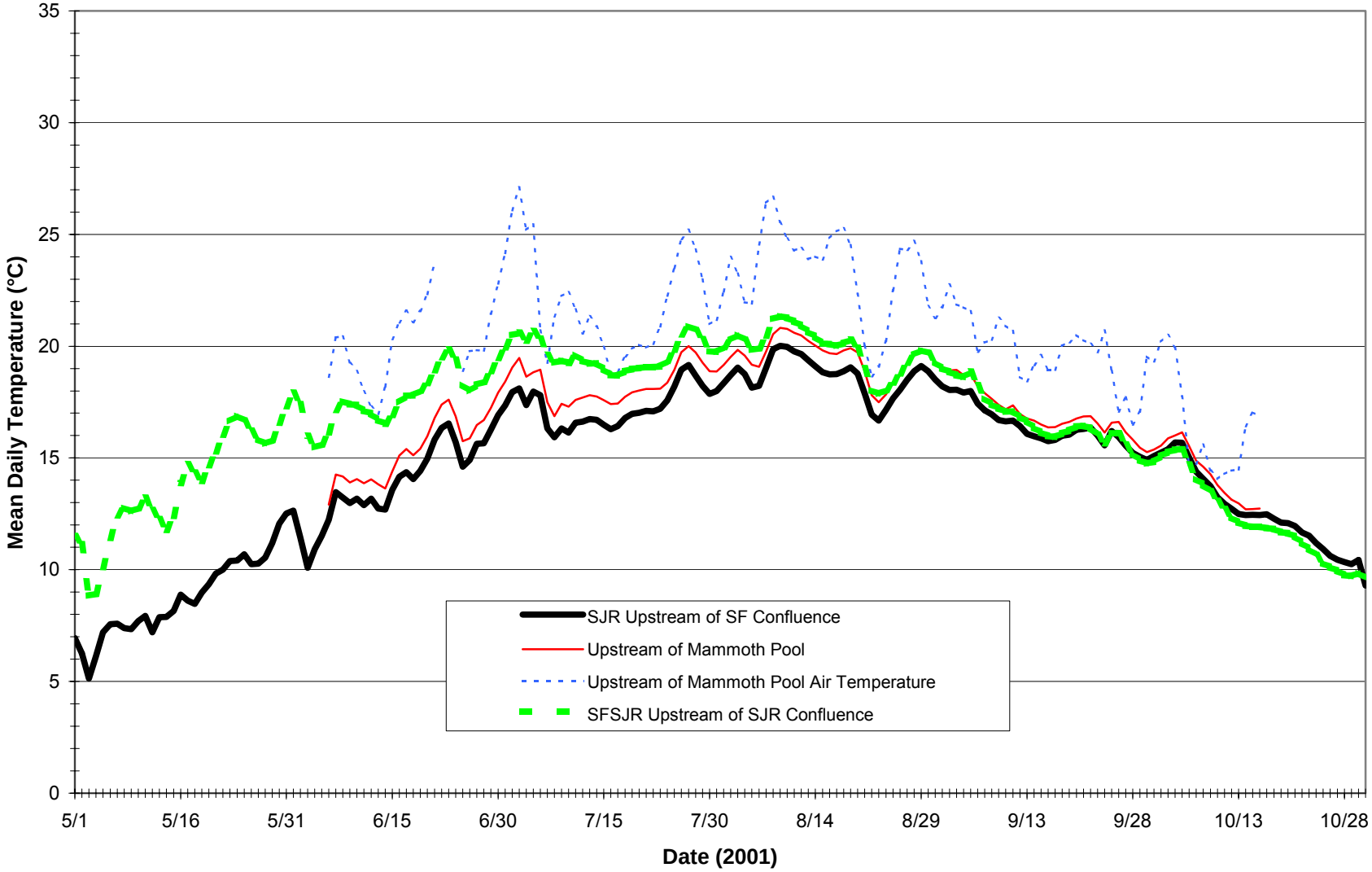


Figure CAWG 5-25. San Joaquin River Upstream of Mammoth Pool Mean Daily Water Temperatures and Upstream of Mammoth Pool Mean Daily Air Temperatures, 2001 (cont).

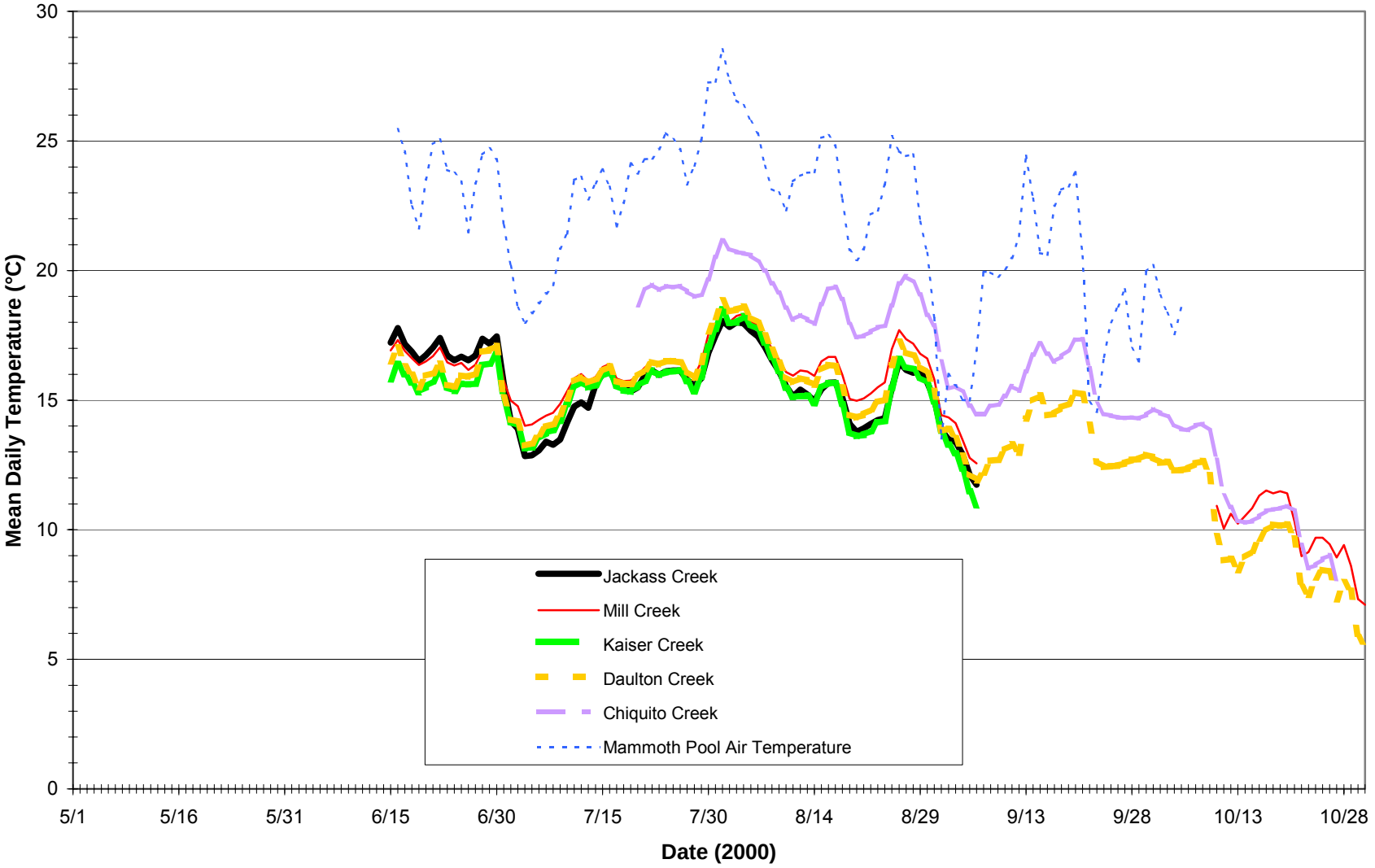


Figure CAWG 5-26. San Joaquin River Tributaries to Mammoth Pool Mean Daily Water Temperatures and Mammoth Pool Mean Daily Air Temperatures, 2000.

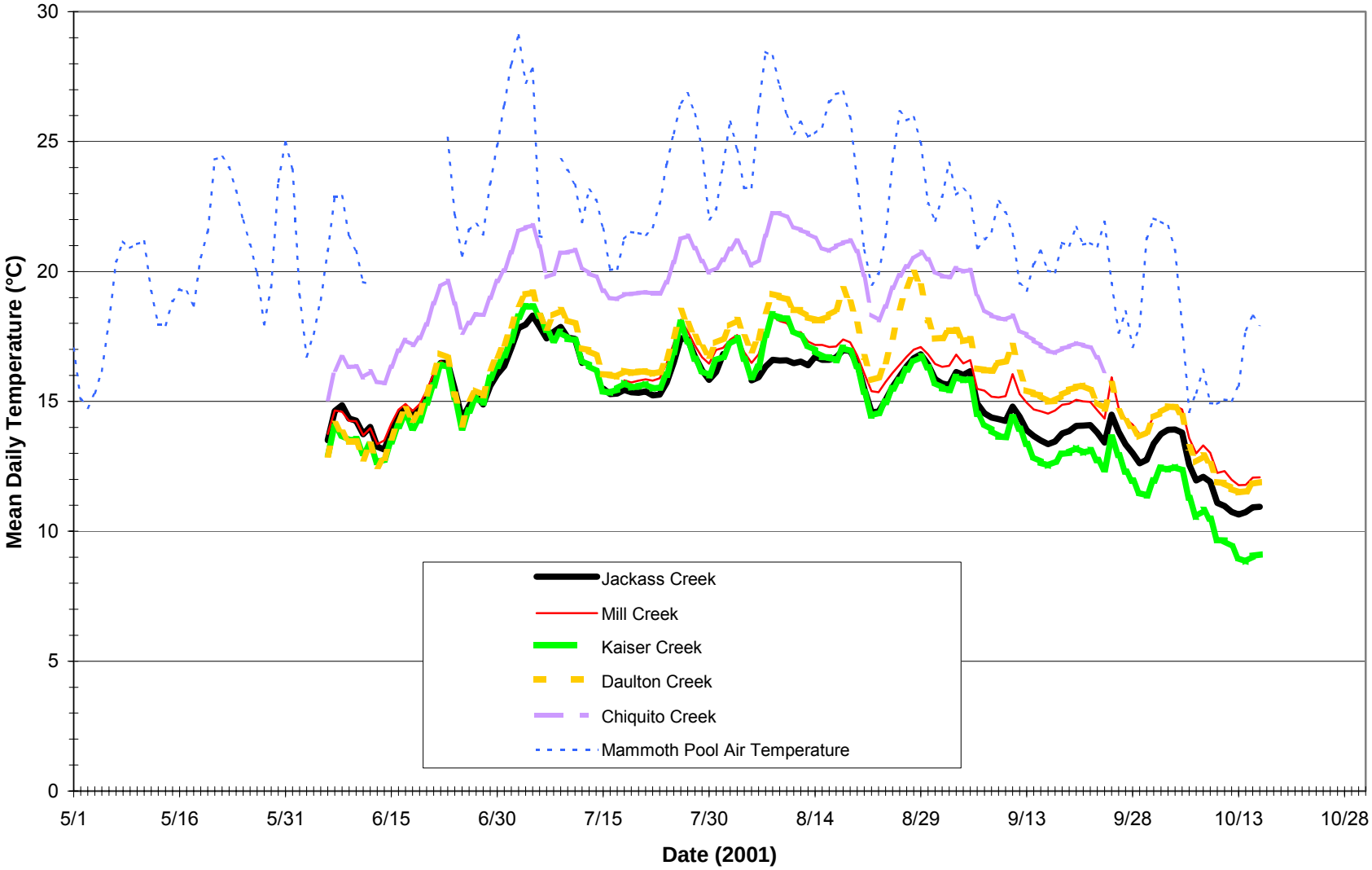


Figure CAWG 5-26. San Joaquin River Tributaries To Mammoth Pool Mean Daily Water Temperatures and Mammoth Pool Mean Daily Air Temperatures, 2001 (cont).

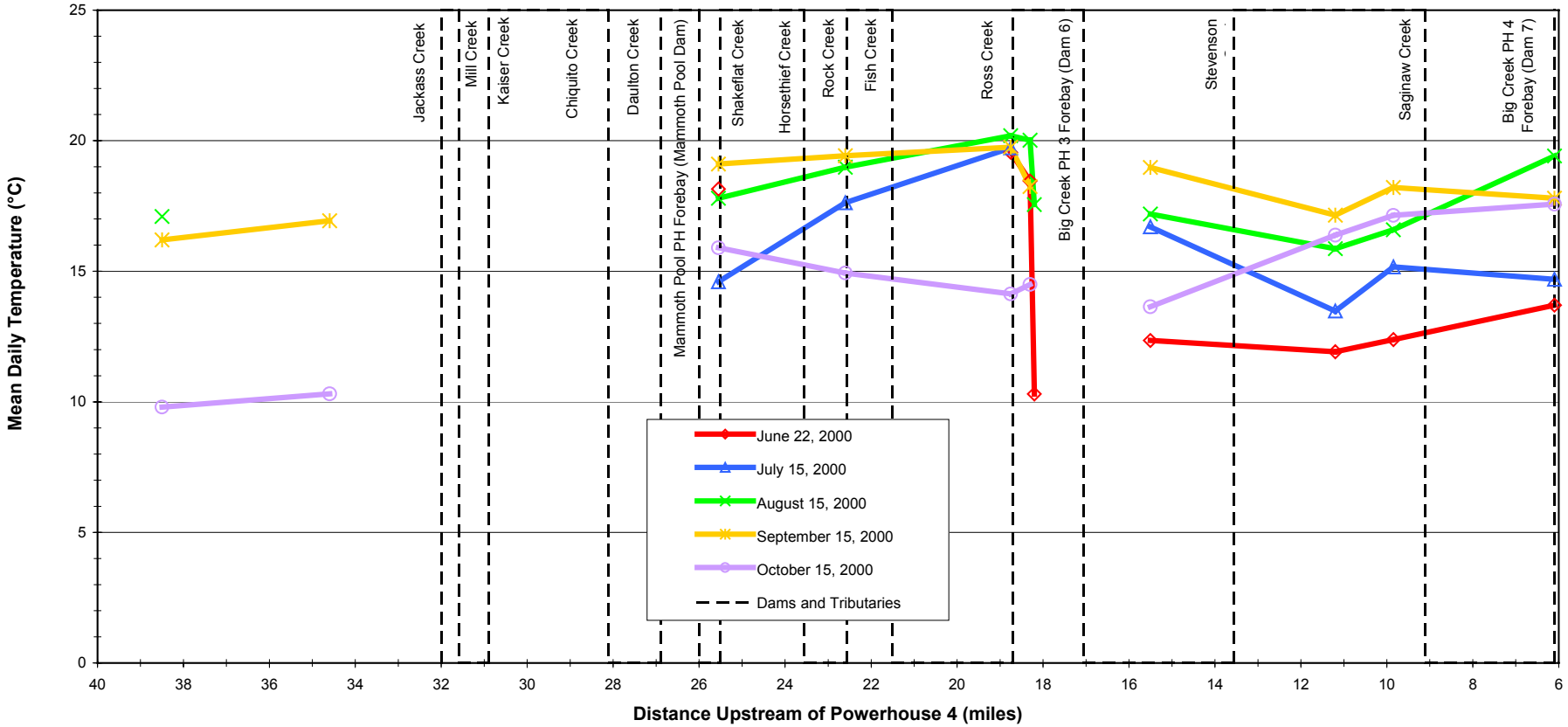


Figure CAWG-5-27. San Joaquin River Longitudinal Mid-Month Mean Daily Temperature Profile by Site, 2000.

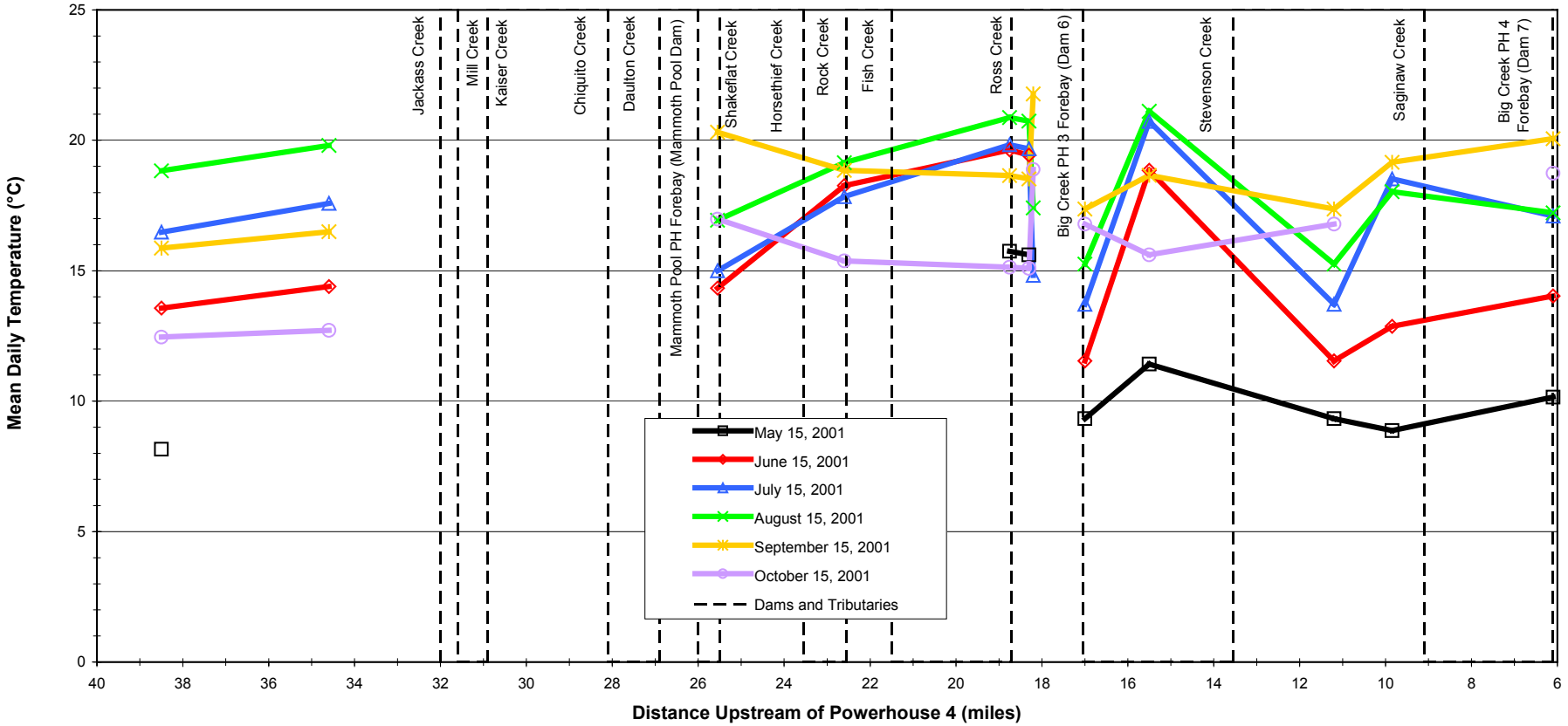


Figure CAWG-5-28. San Joaquin River Longitudinal Mid-Month Mean Daily Temperature Profile by Site, 2001.

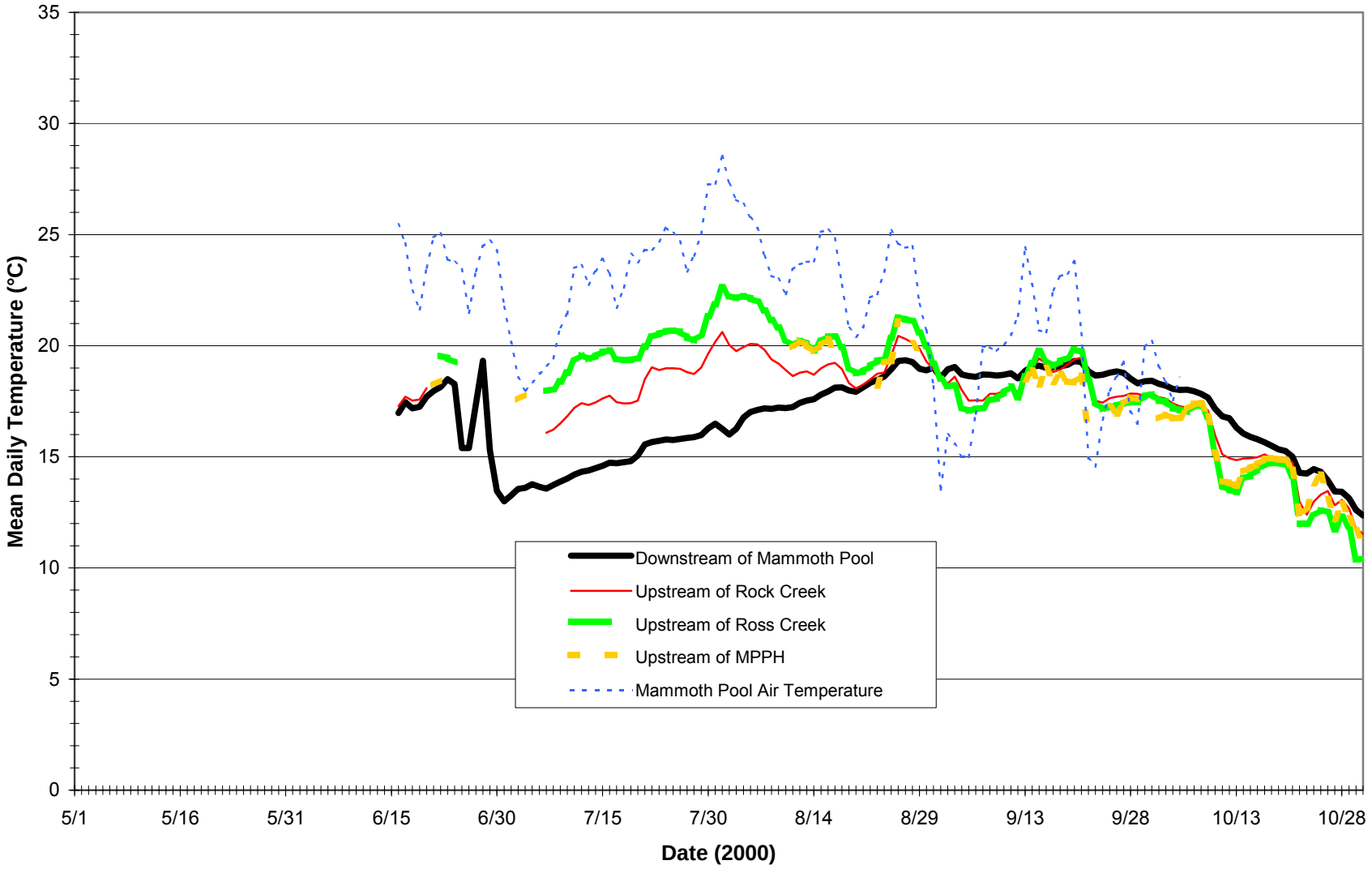


Figure CAWG 5-29. Mammoth Reach of the San Joaquin River Mean Daily Water Temperatures and Mammoth Pool Mean Daily Air Temperatures, 2000.

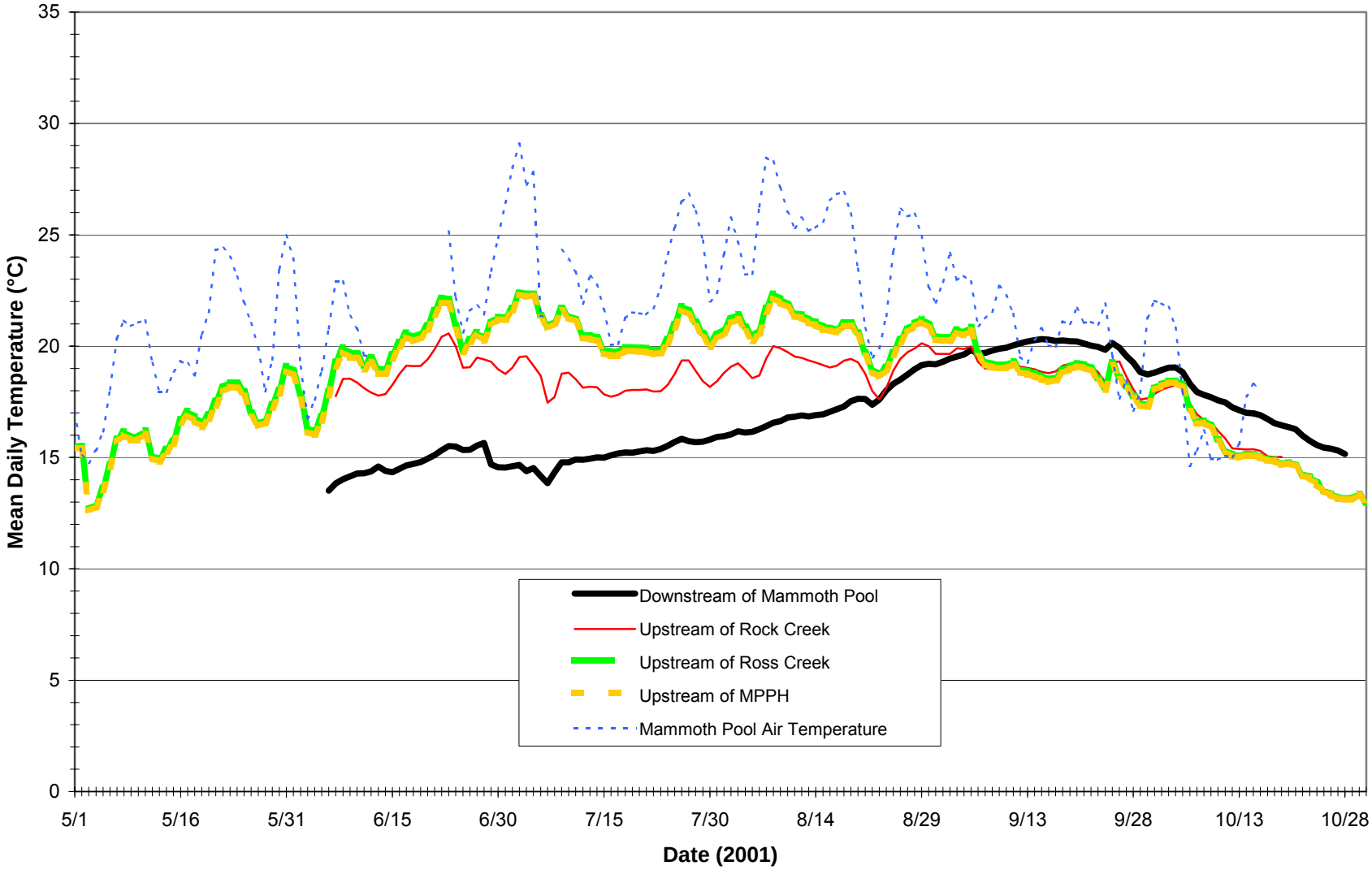


Figure CAWG 5-29. Mammoth Reach of the San Joaquin River Mean Daily Water Temperatures and Mammoth Pool Mean Daily Air Temperatures, 2001 (cont).

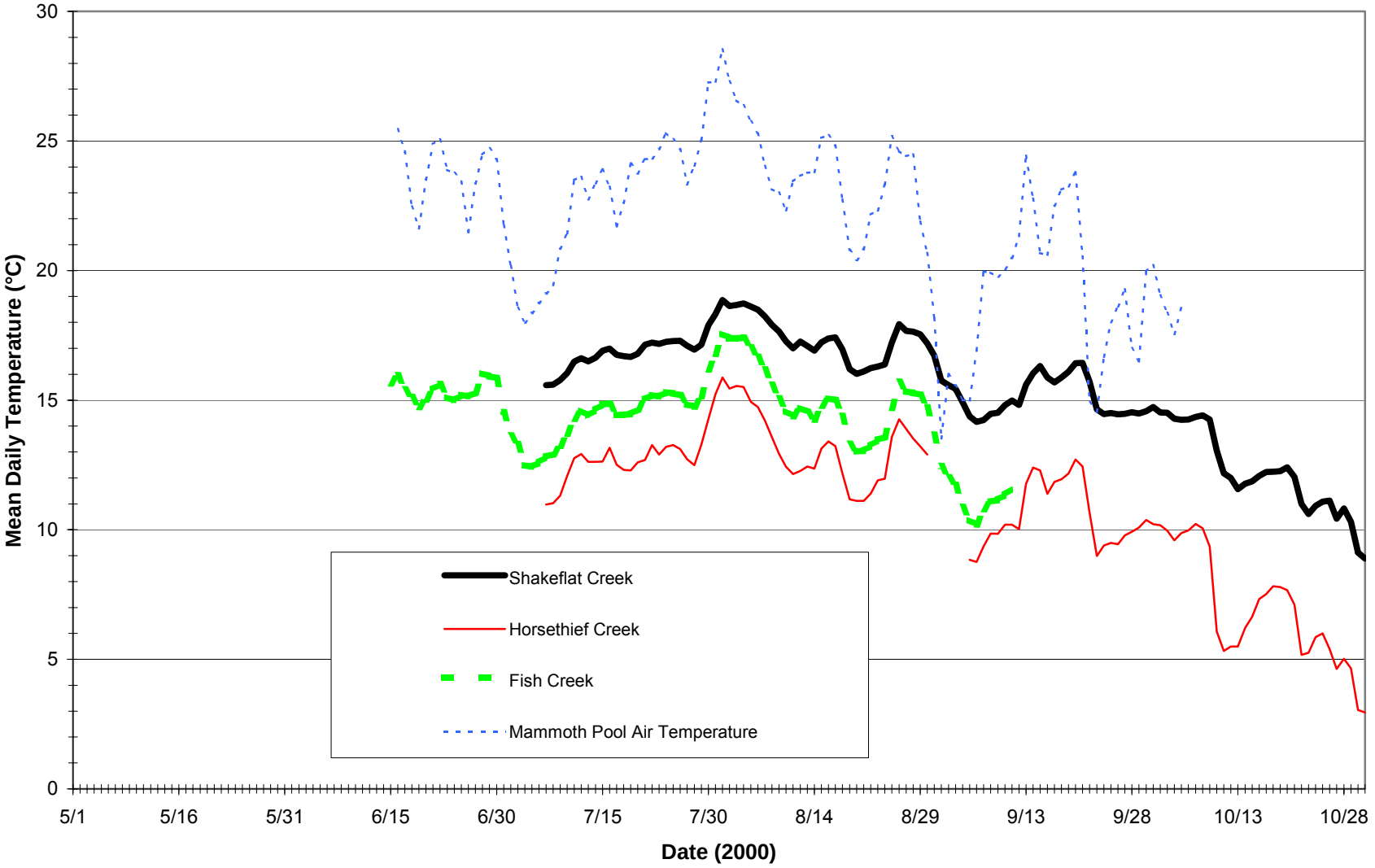


Figure CAWG 5-30. Shakeflat, Horsethief, and Fish Creeks Mean Daily Water Temperatures and Mammoth Pool Lake Mean Daily Air Temperatures, 2000.

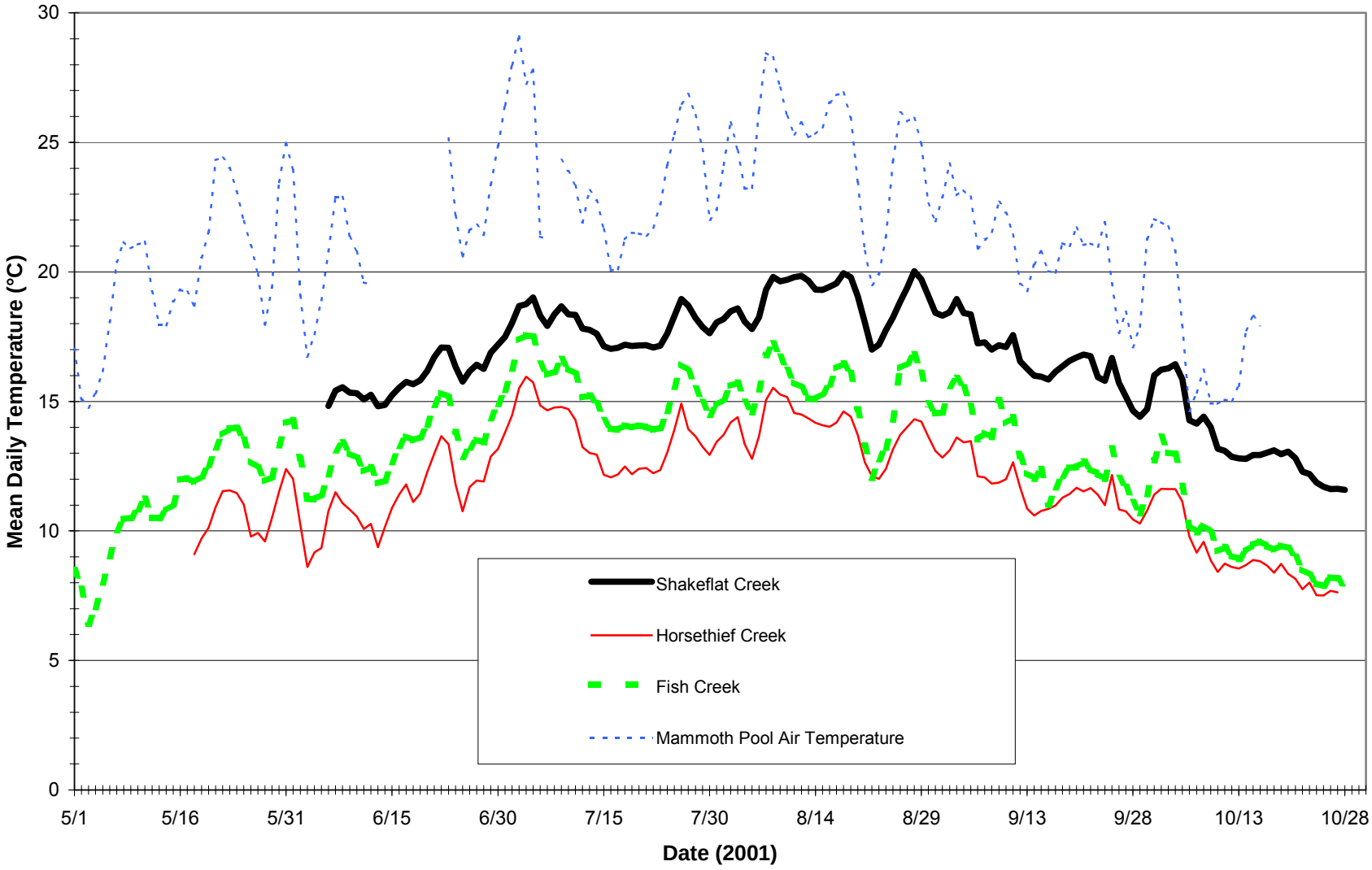


Figure CAWG 5-30. Shakeflat, Horsethief, and Fish Creeks Mean Daily Water Temperatures and Mammoth Pool Mean Daily Air Temperatures, 2001 (cont).

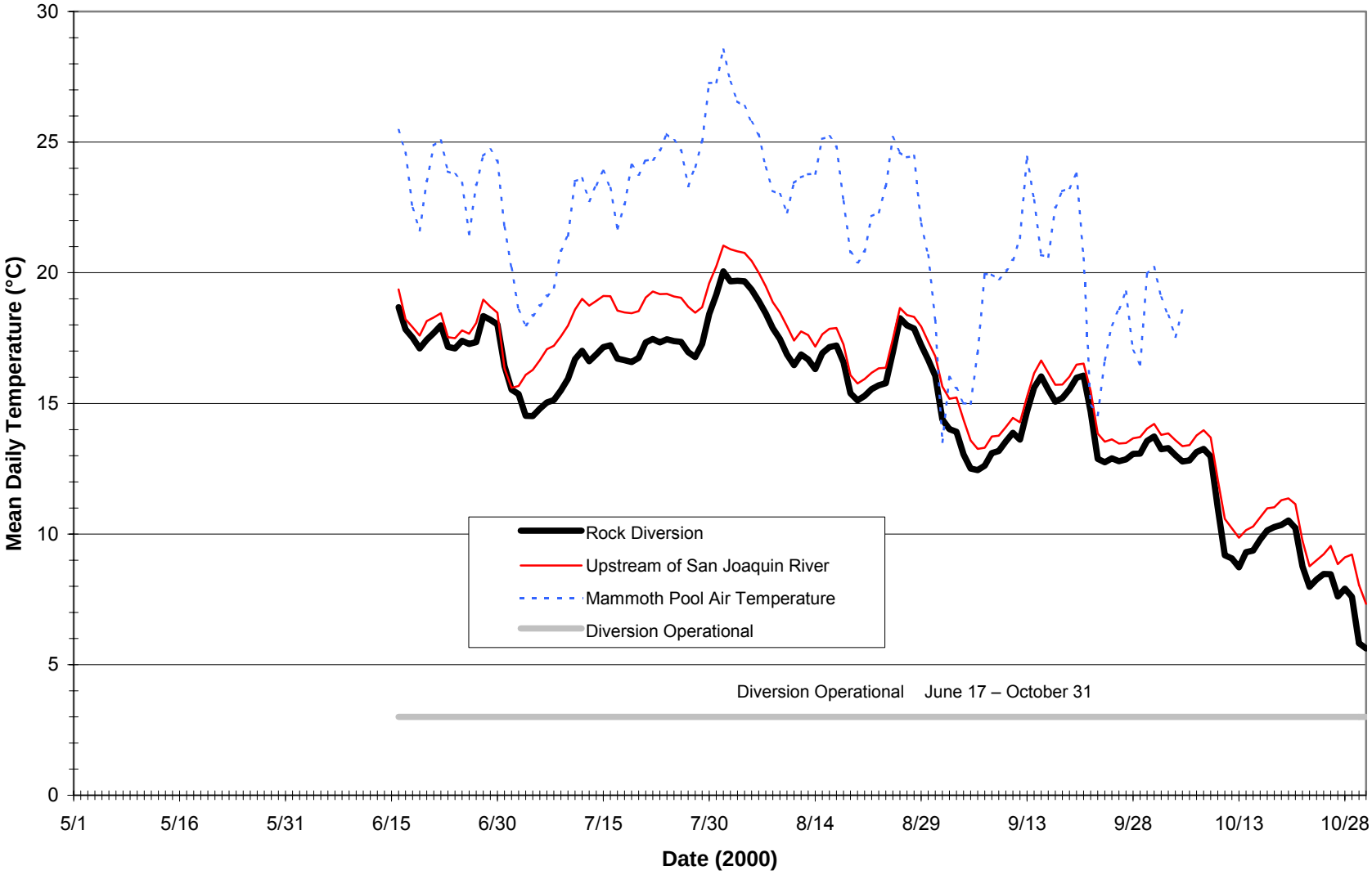


Figure CAWG 5-31. Rock Creek Mean Daily Water Temperatures and Mammoth Pool Mean Daily Air Temperatures with Diversion Operations, 2000.

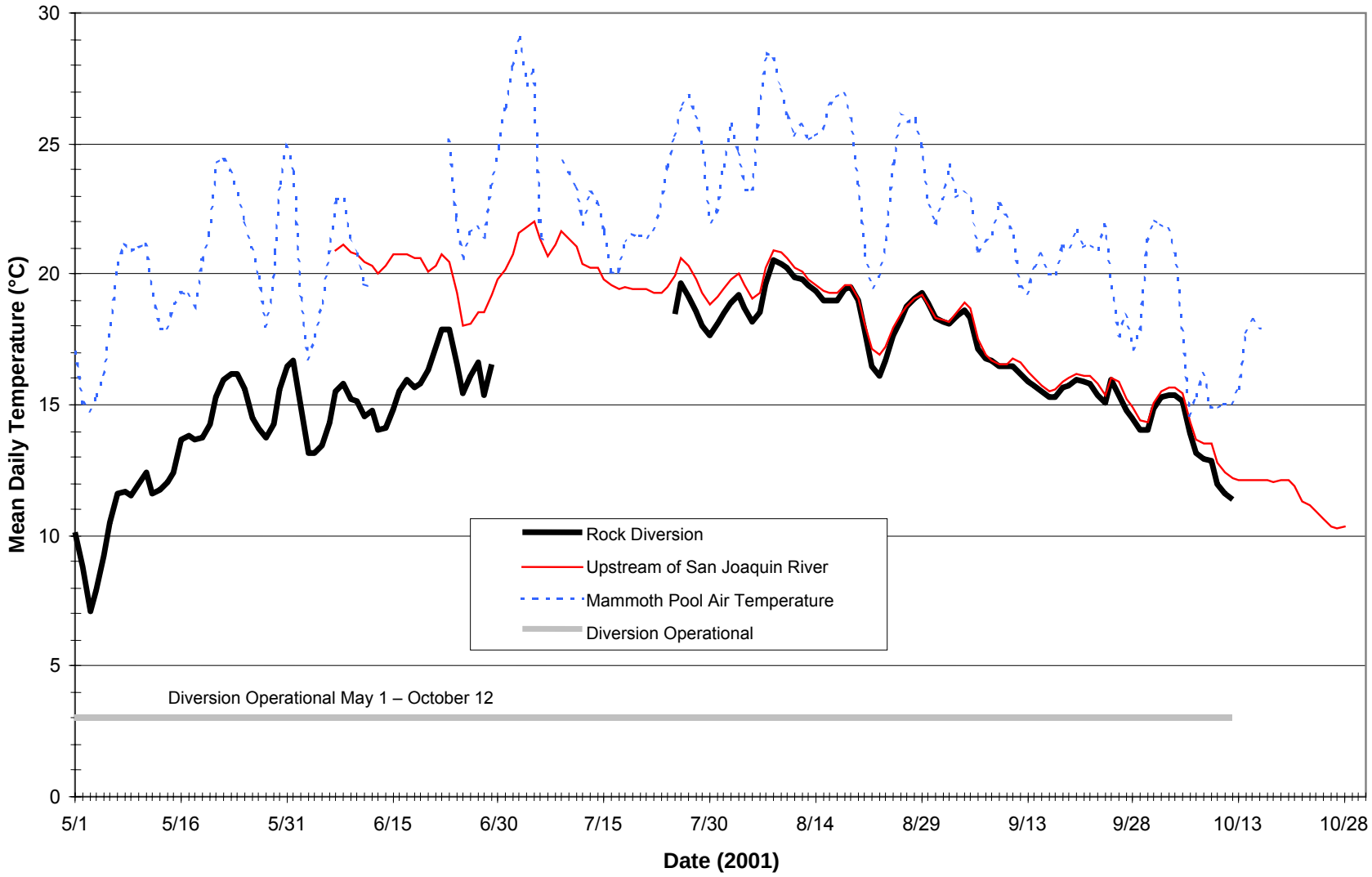


Figure CAWG 5-31. Rock Creek Mean Daily Water Temperatures and Mammoth Pool Mean Daily Air Temperatures with Diversion Operations, 2001 (cont).

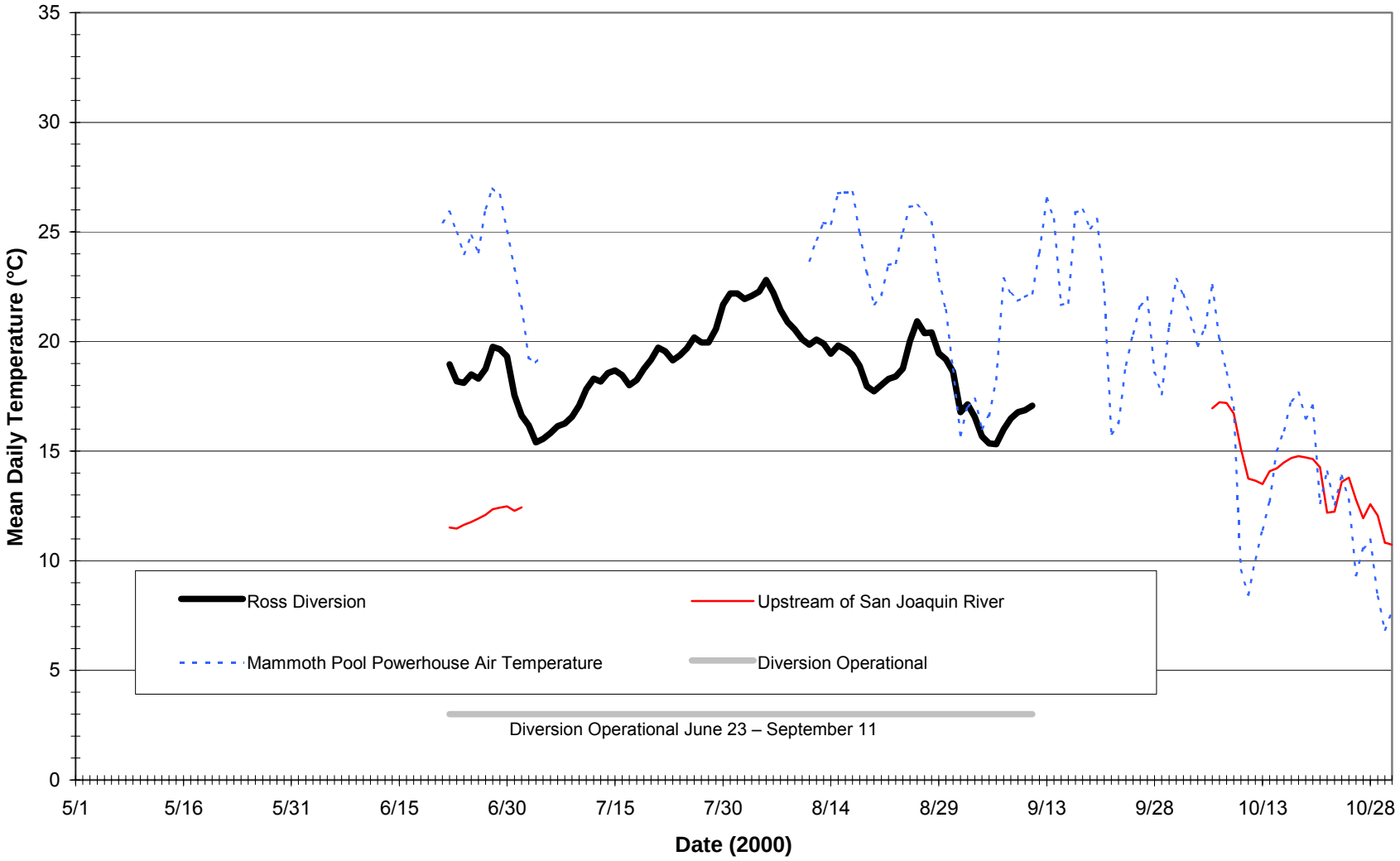


Figure CAWG 5-32. Ross Creek Mean Daily Water Temperatures and Mammoth Pool Powerhouse Mean Daily Air Temperatures with Diversion Operations, 2000.

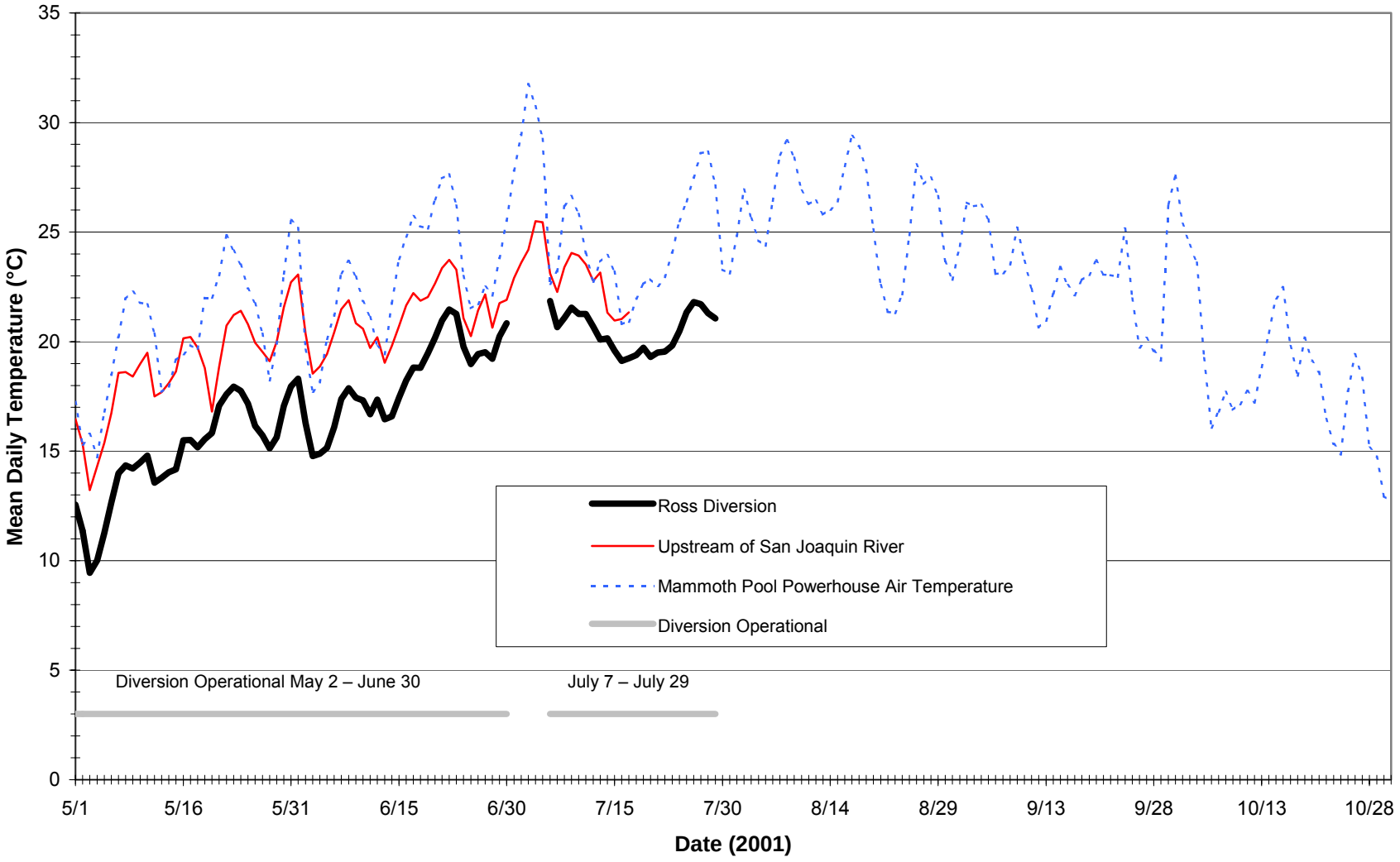


Figure CAWG 5-32. Ross Creek Mean Daily Water Temperatures and Mammoth Pool Powerhouse Mean Daily Air Temperatures, with Diversion Operations, 2001 (cont).

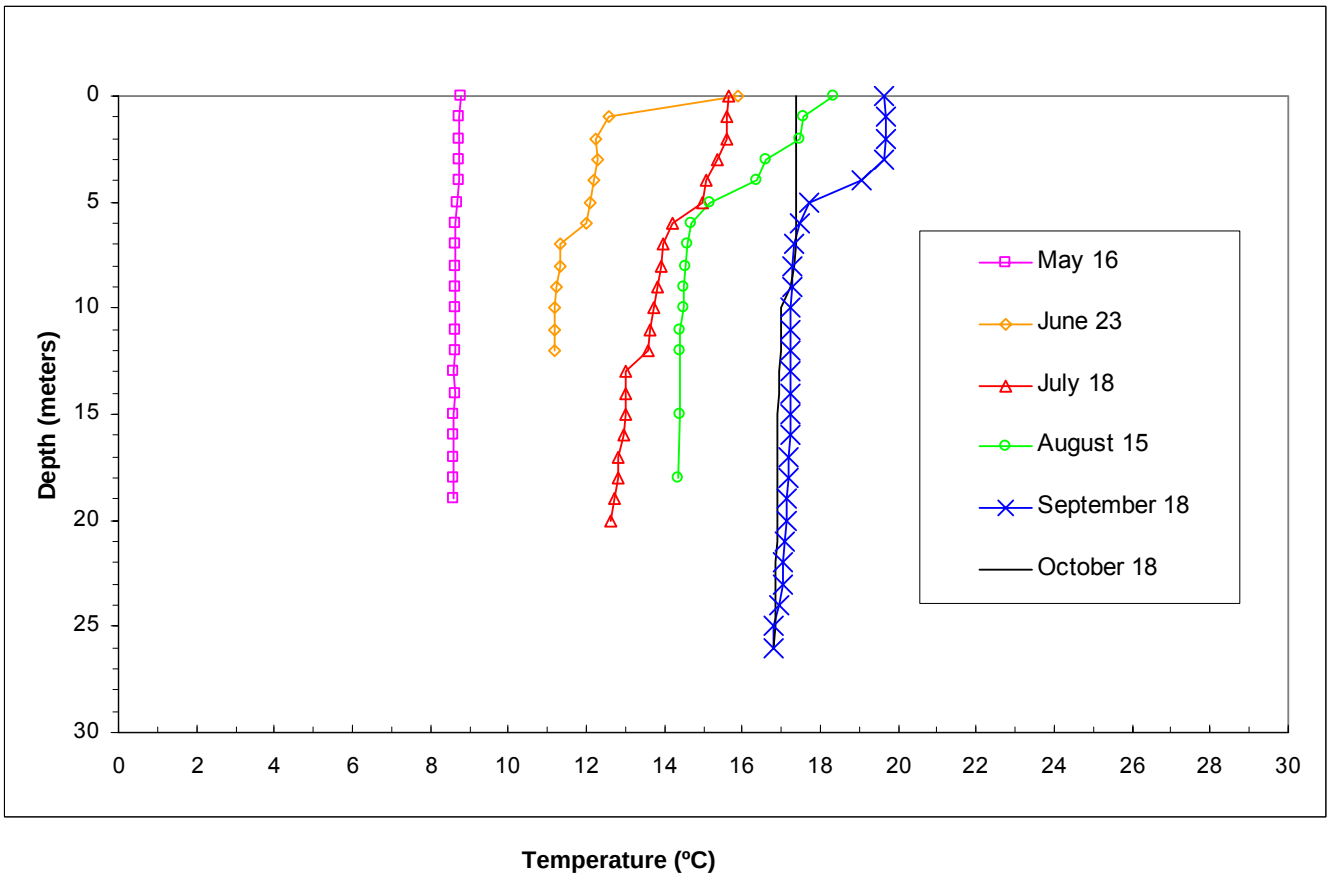


Figure CAWG 5-33. Powerhouse 3 Forebay Water Temperature Profiles, 2001.

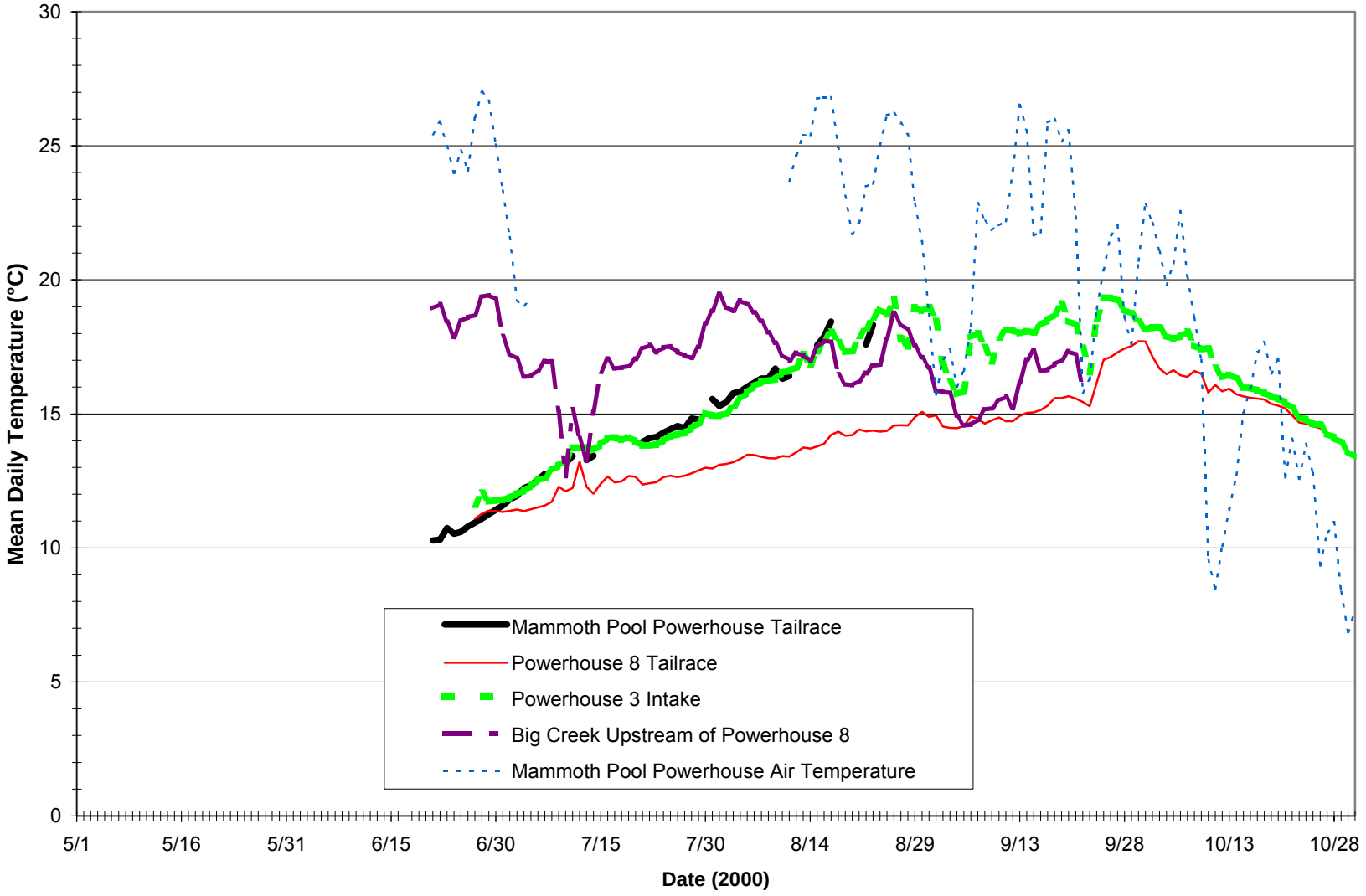


Figure CAWG 5-34. Big Creek Powerhouse 3 Forebay (Dam 6) Mean Daily Water Temperatures and Mammoth Pool Powerhouse Mean Daily Air Temperatures, 2000.

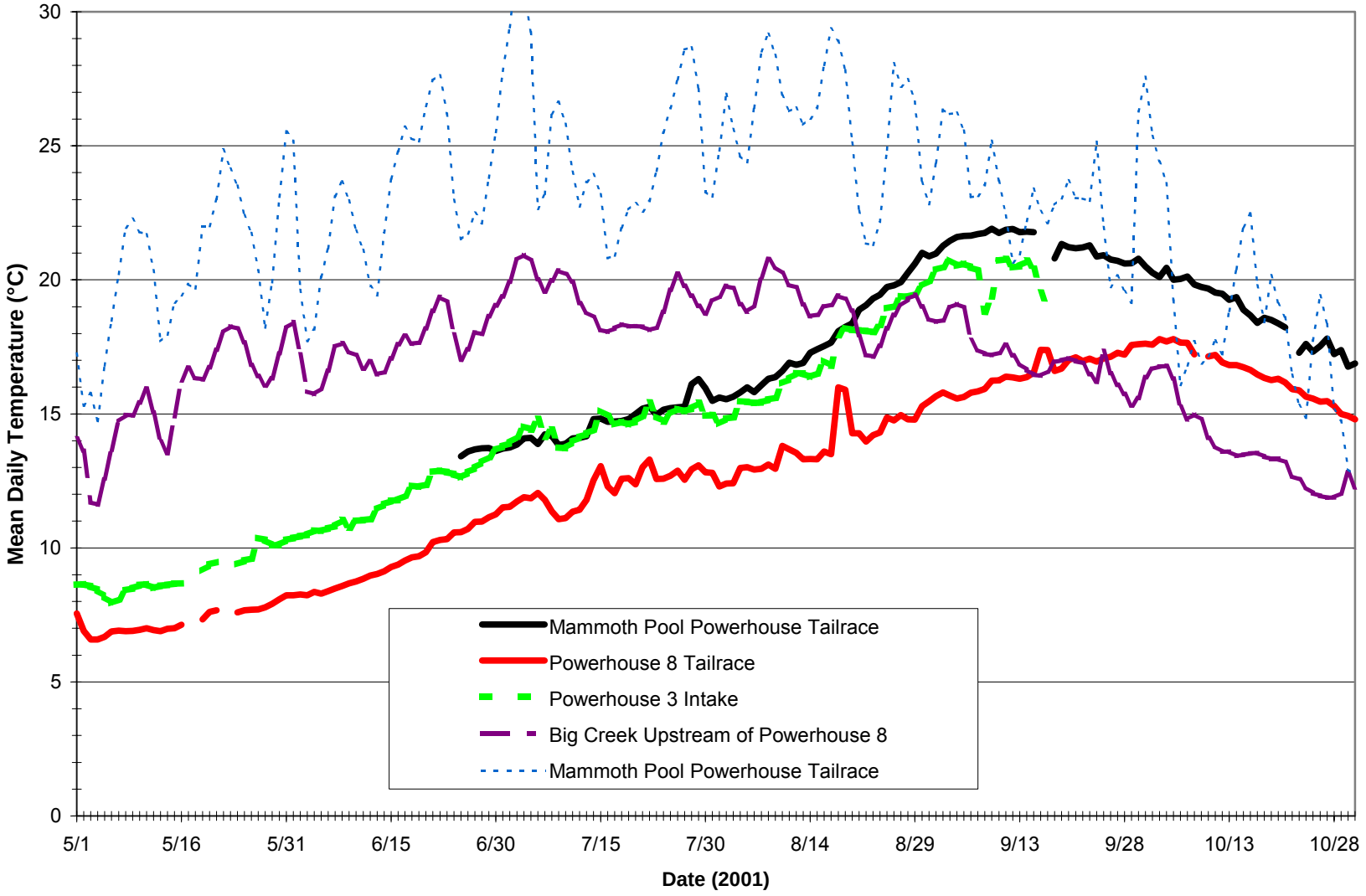


Figure CAWG 5-34. Big Creek Powerhouse 3 Forebay (Dam 6) Mean Daily Water Temperatures and Mammoth Pool Powerhouse Mean Daily Air Temperatures, 2001 (cont).

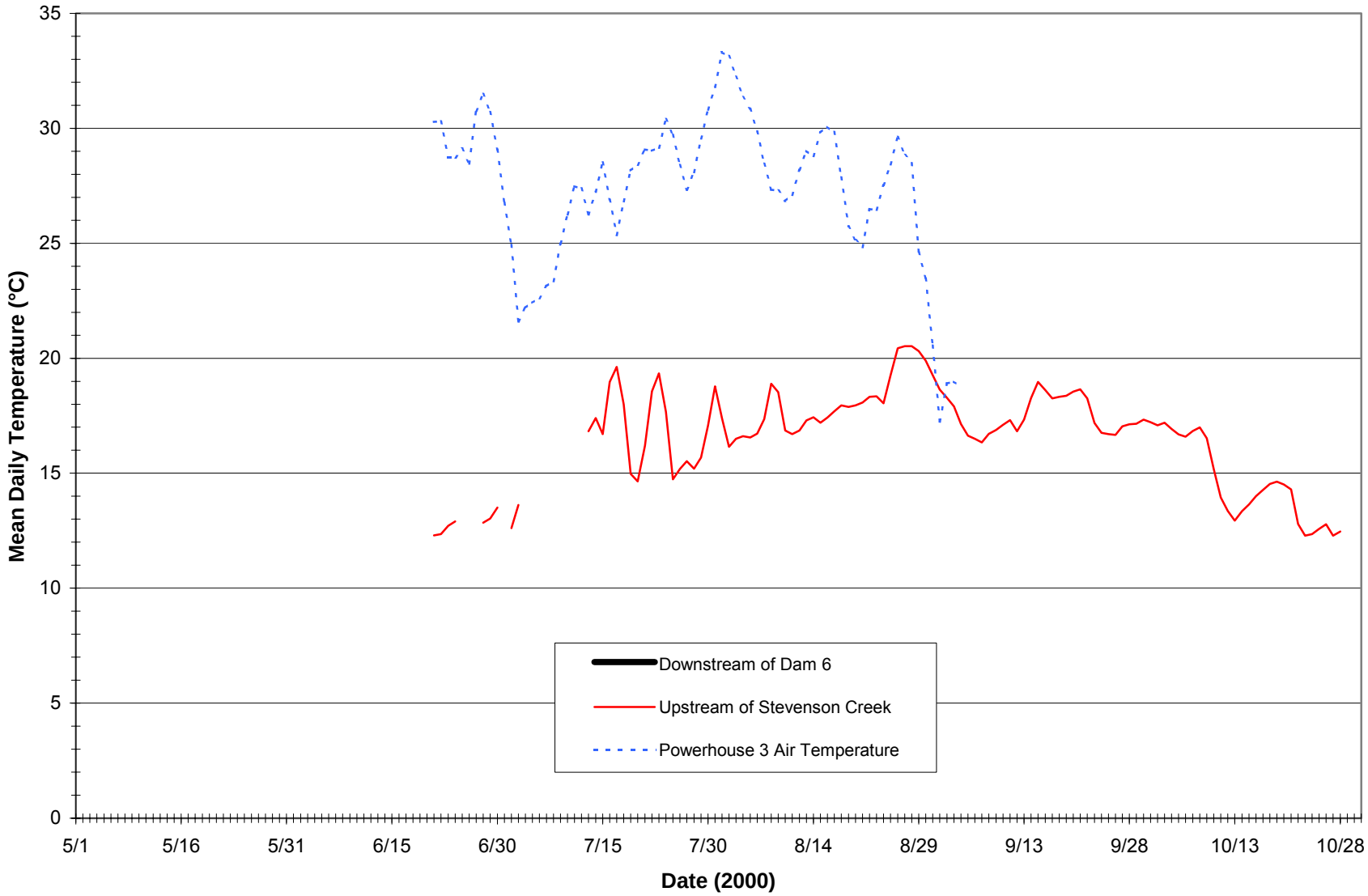


Figure CAWG 5-35. San Joaquin River Downstream of Dam 6 Mean Daily Water Temperatures and Powerhouse 3 Mean Daily Air Temperatures, 2000.

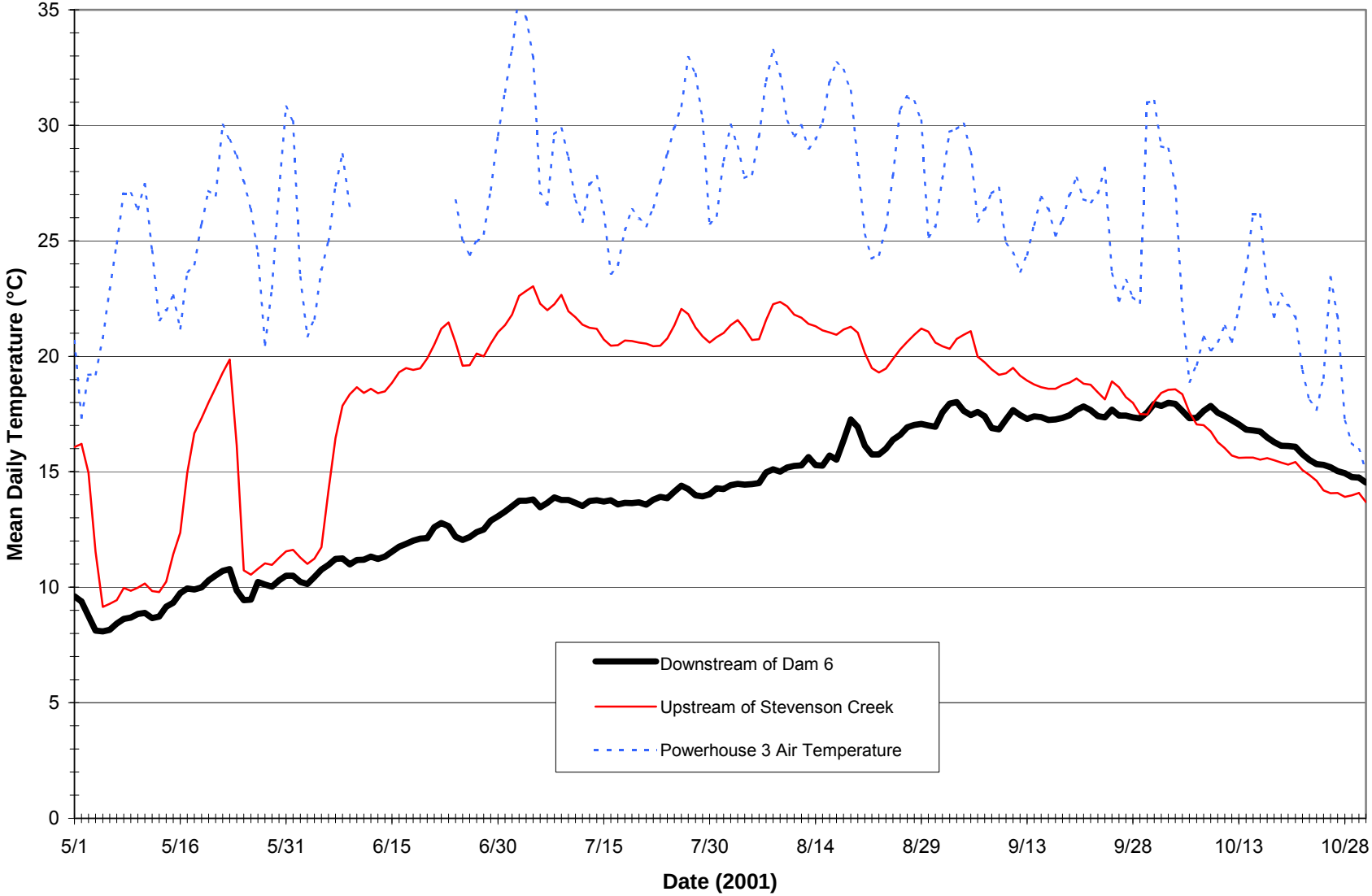


Figure CAWG 5-35. San Joaquin River Downstream of Dam 6 Mean Daily Water Temperatures and Powerhouse 3 Mean Daily Air Temperatures, 2001 (cont).

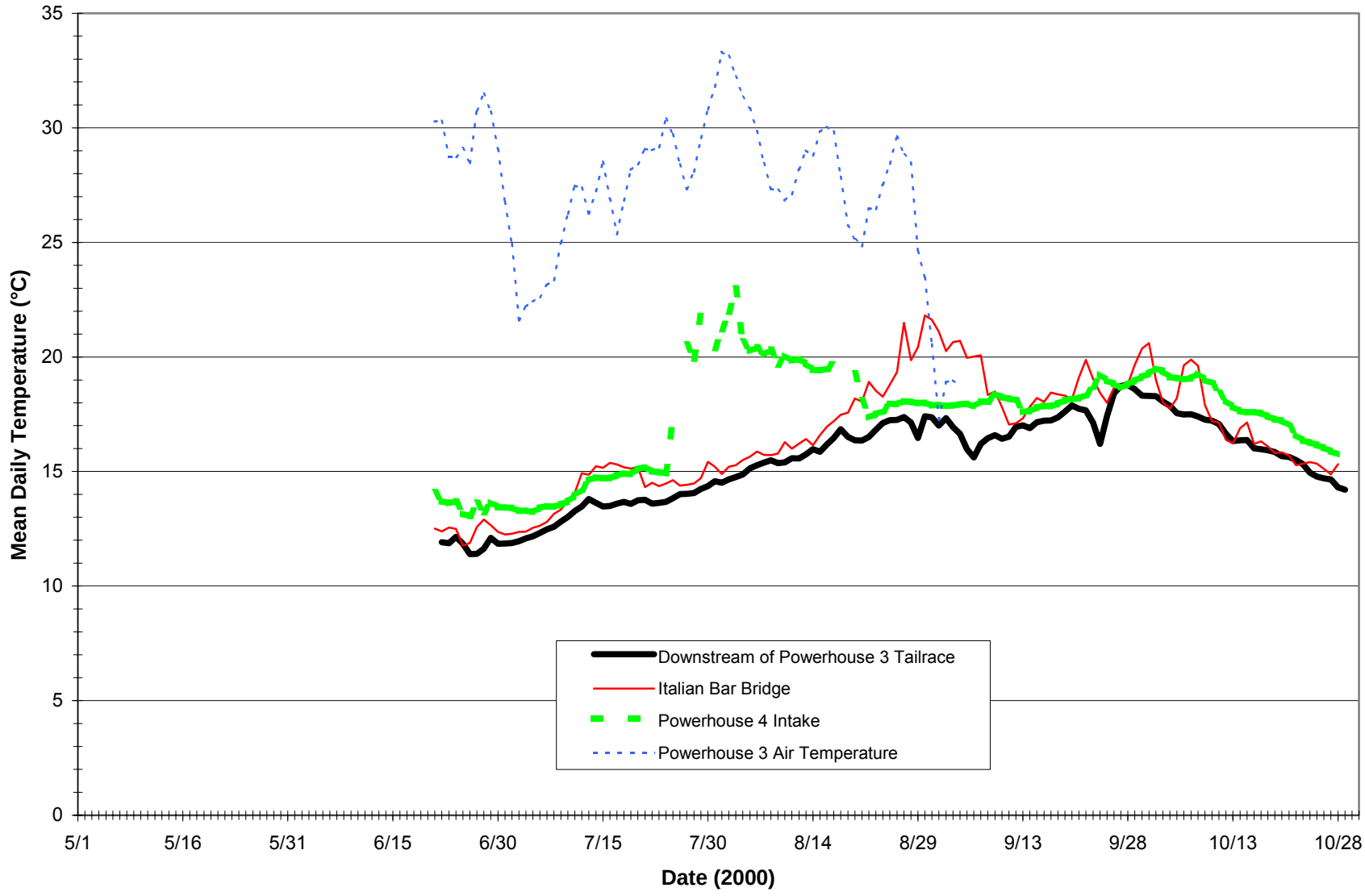


Figure CAWG 5-36. San Joaquin River Redinger Lake Area Mean Daily Water Temperatures and Powerhouse Mean 3 Daily Air Temperatures, 2000.

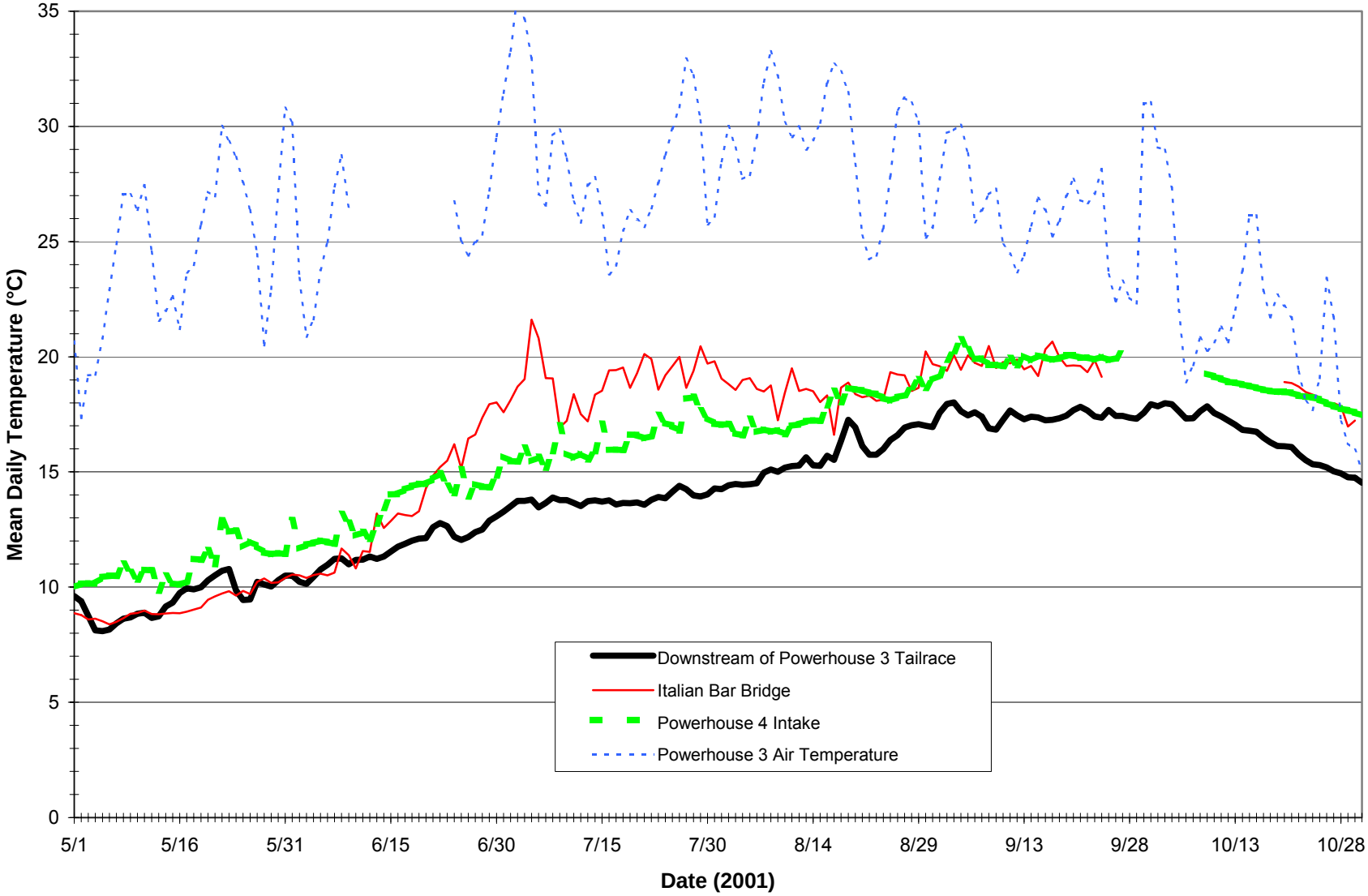


Figure CAWG 5-36. San Joaquin River Redinger Lake Area Mean Daily Water Temperatures and Powerhouse 3 Mean Daily Air Temperatures, 2001 (cont).

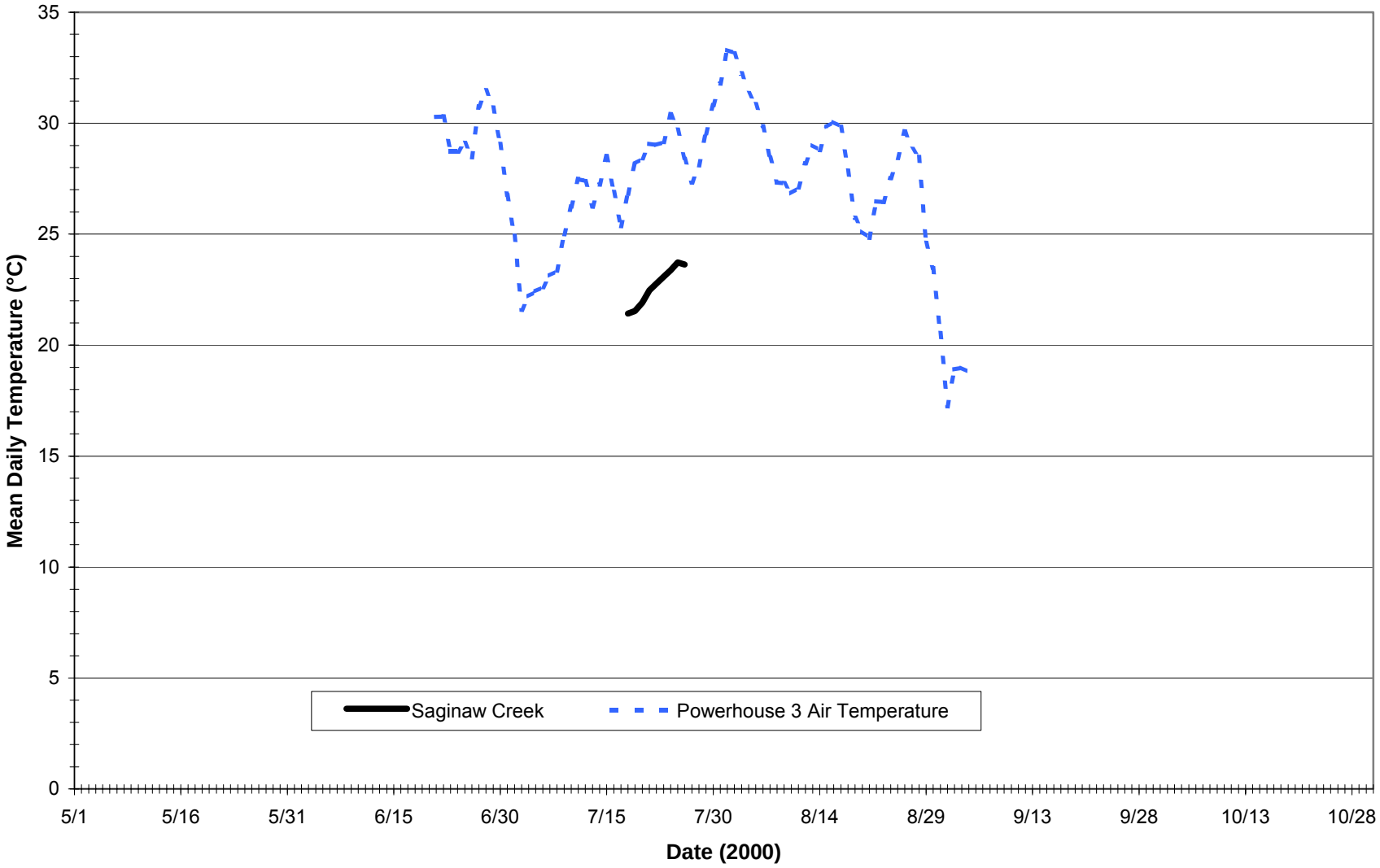


Figure CAWG 5-37. Saginaw Creek Mean Daily Water Temperatures and Powerhouse 3 Mean Daily Air Temperatures, 2000.

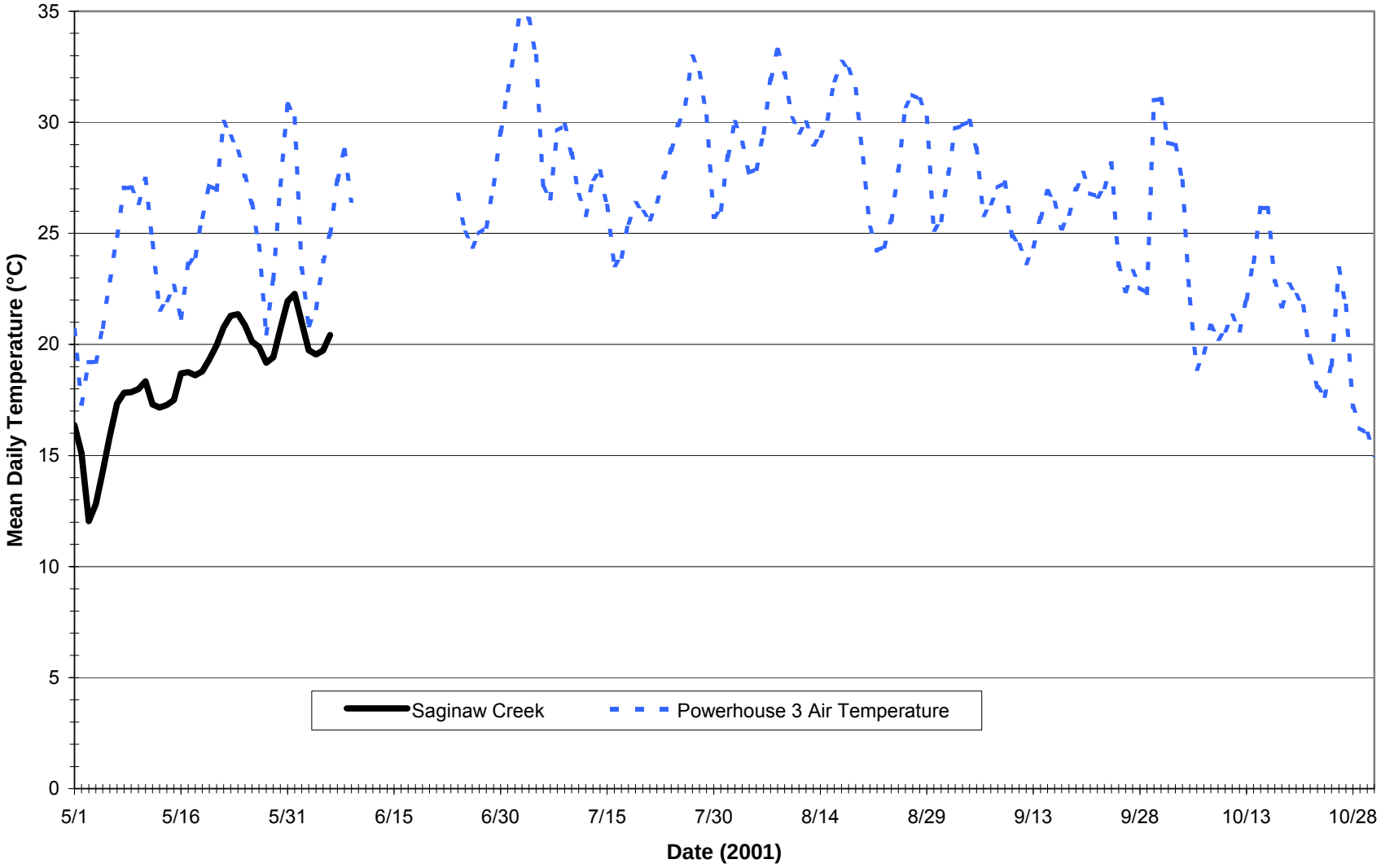


Figure CAWG 5-37. Saginaw Creek Mean Daily Water Temperatures and Powerhouse 3 Mean Daily Air Temperatures, 2001 (cont).

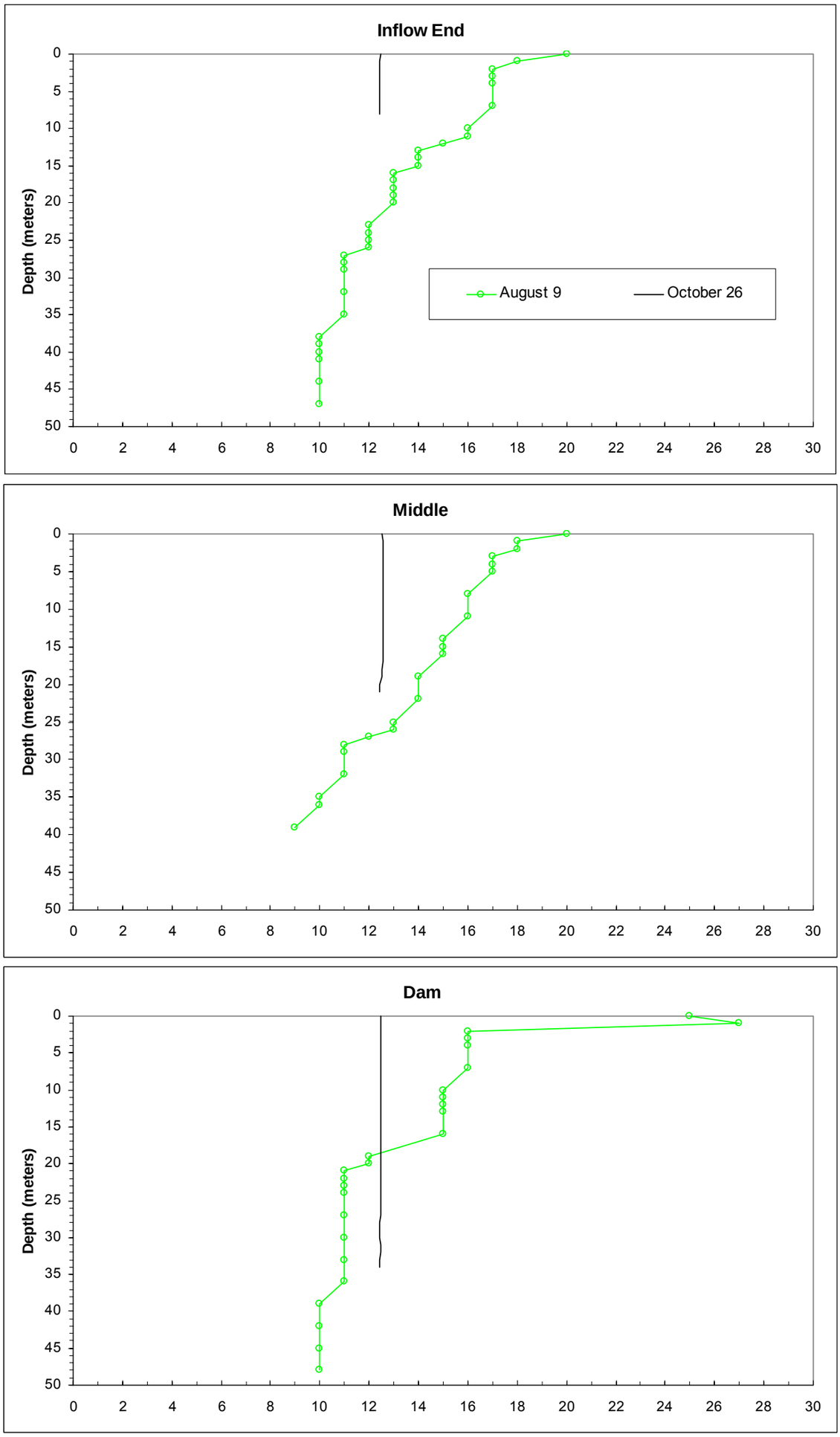


Figure CAWG 5-38. Huntington Lake Water Temperature Profiles, 2000.

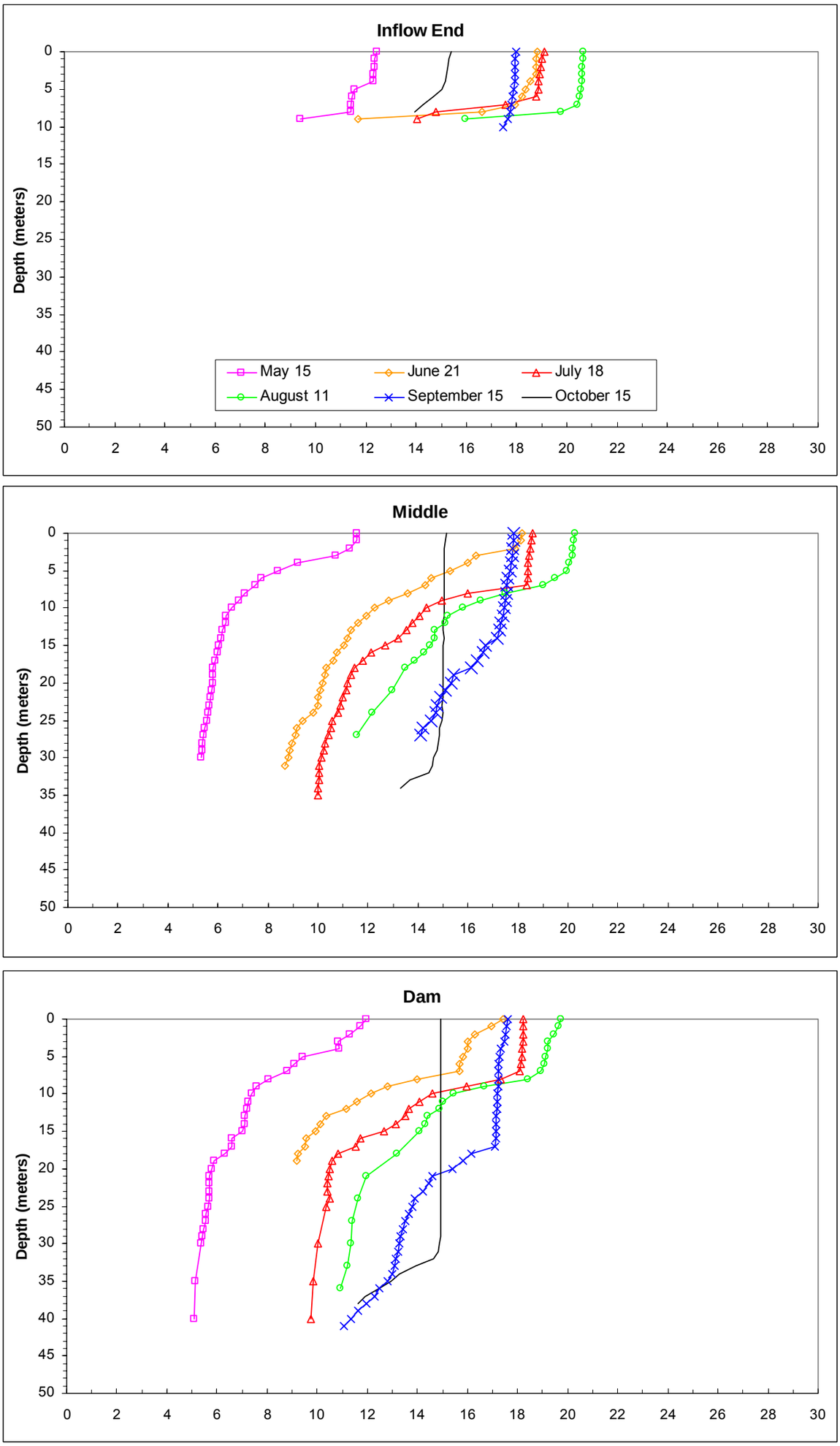


Figure CAWG 5-39. Huntington Lake Water Temperature Profiles, 2001.

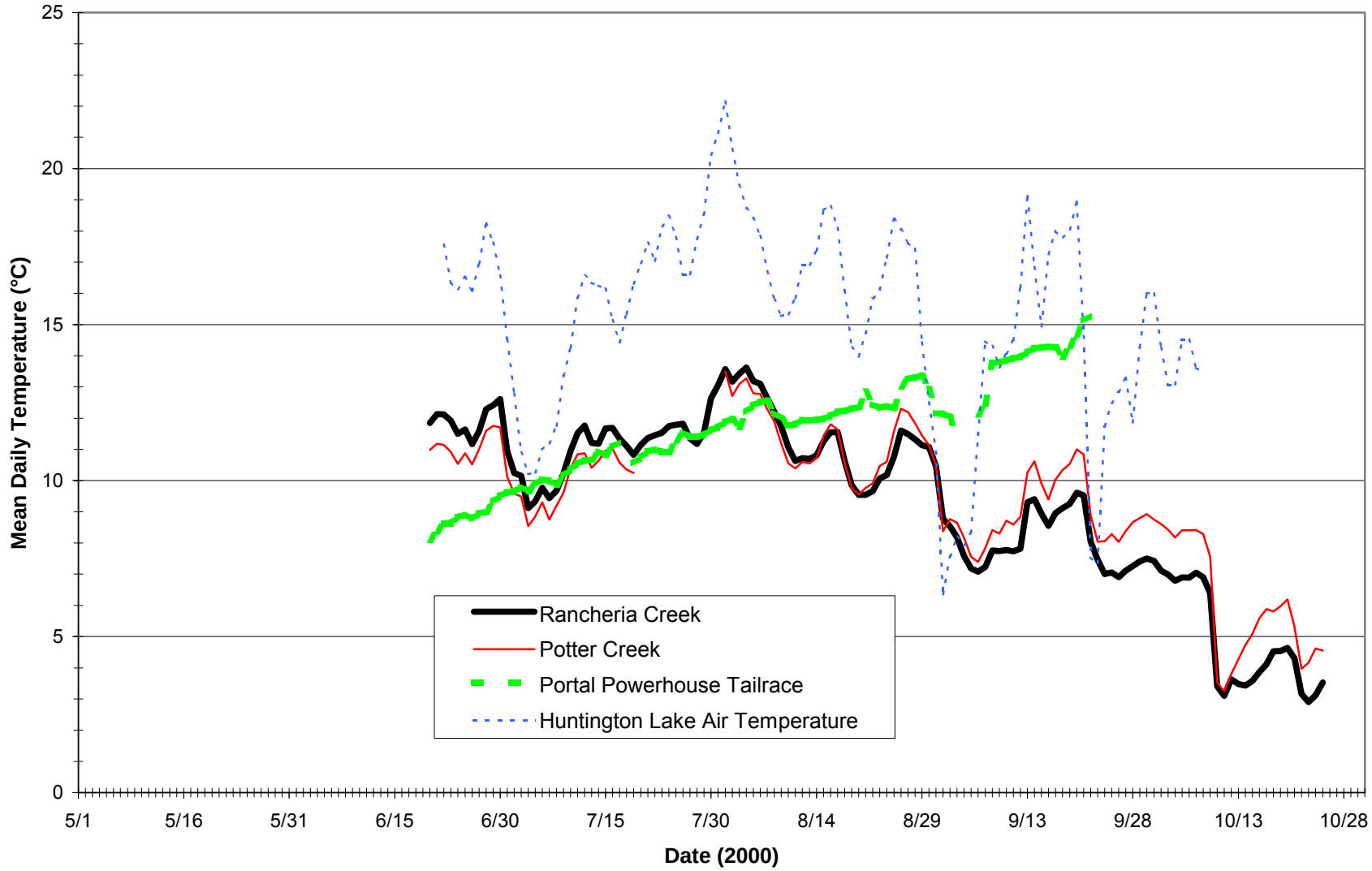


Figure CAWG 5-40. Rancheria and Potter Creeks, Portal Powerhouse Tailrace Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures, 2000.

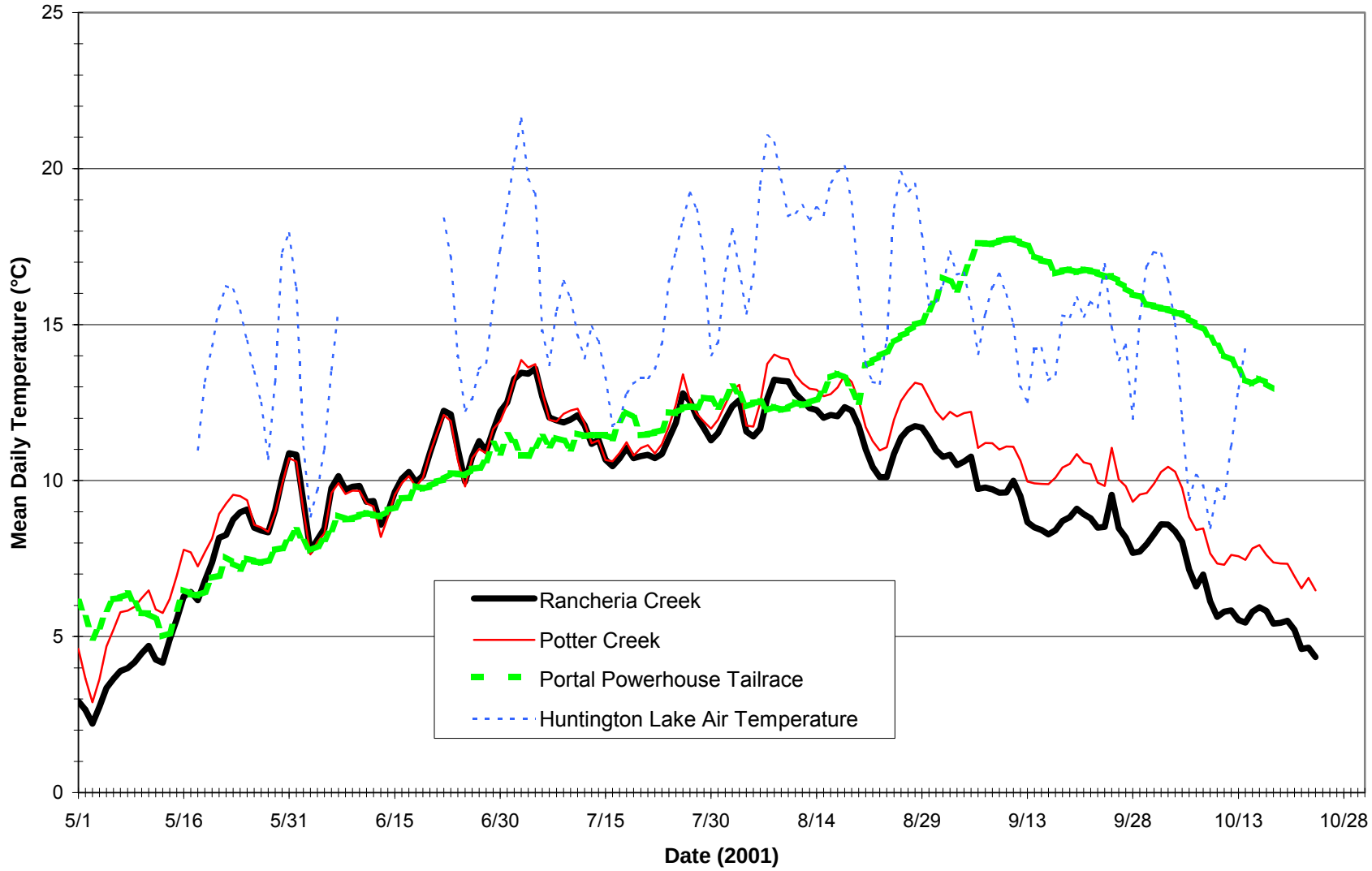


Figure CAWG 5-40. Rancheria and Potter Creeks, Portal Powerhouse Tailrace Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures, 2001 (cont).

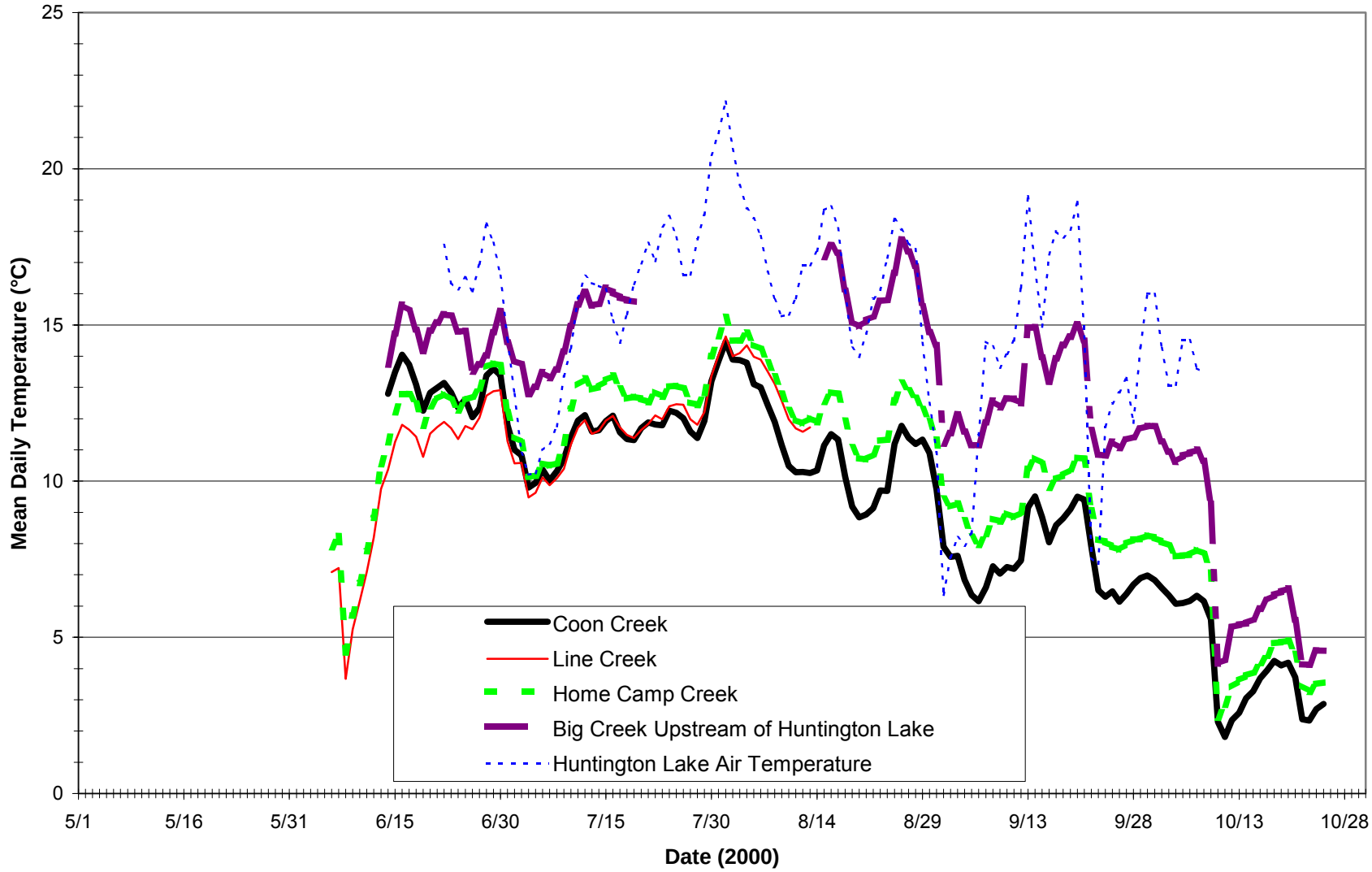


Figure CAWG 5-40. Tributaries to Huntington Lake Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures, 2000 (cont).

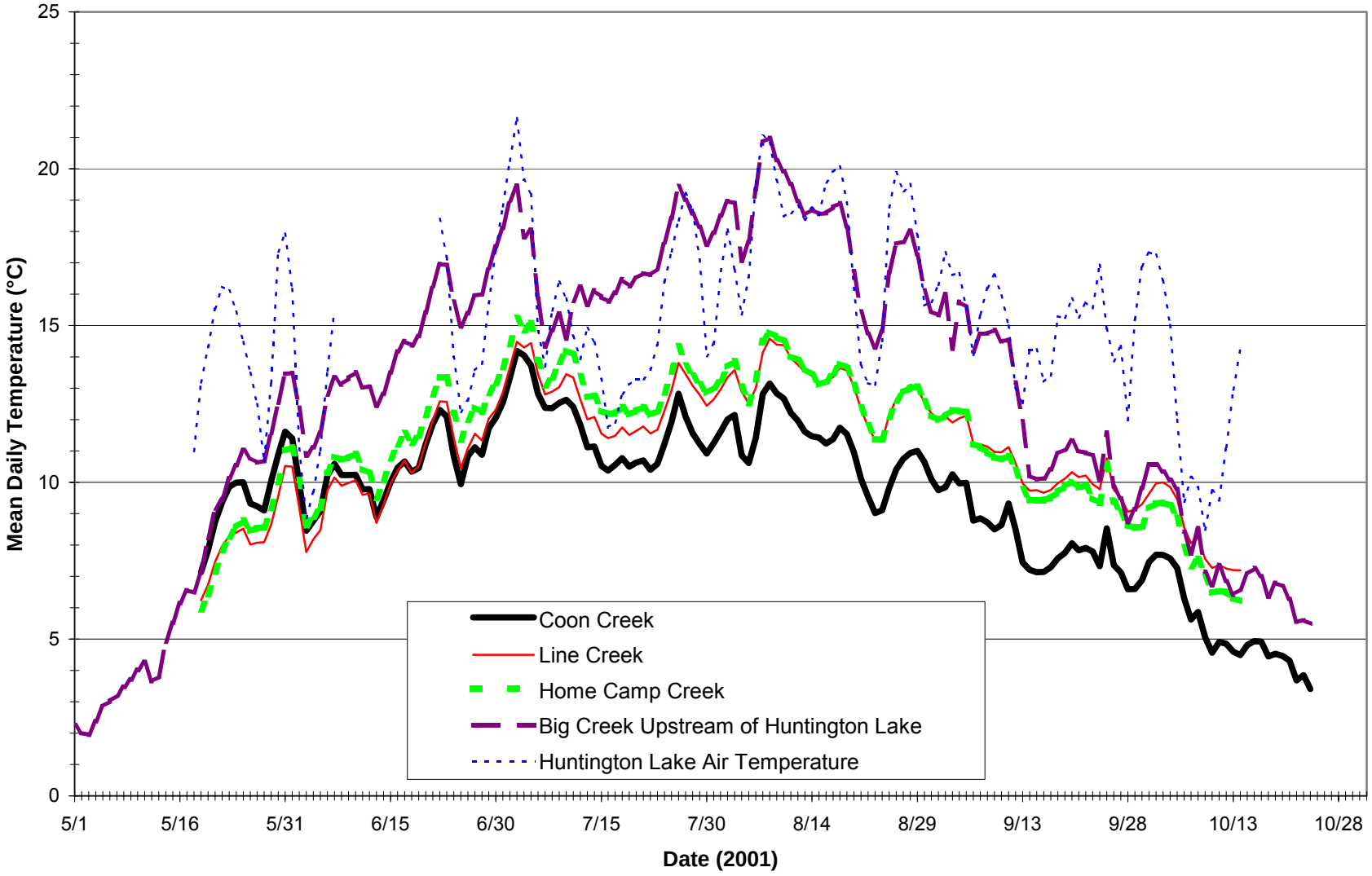


Figure CAWG 5-40. Tributaries to Huntington Lake Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures, 2001 (cont).

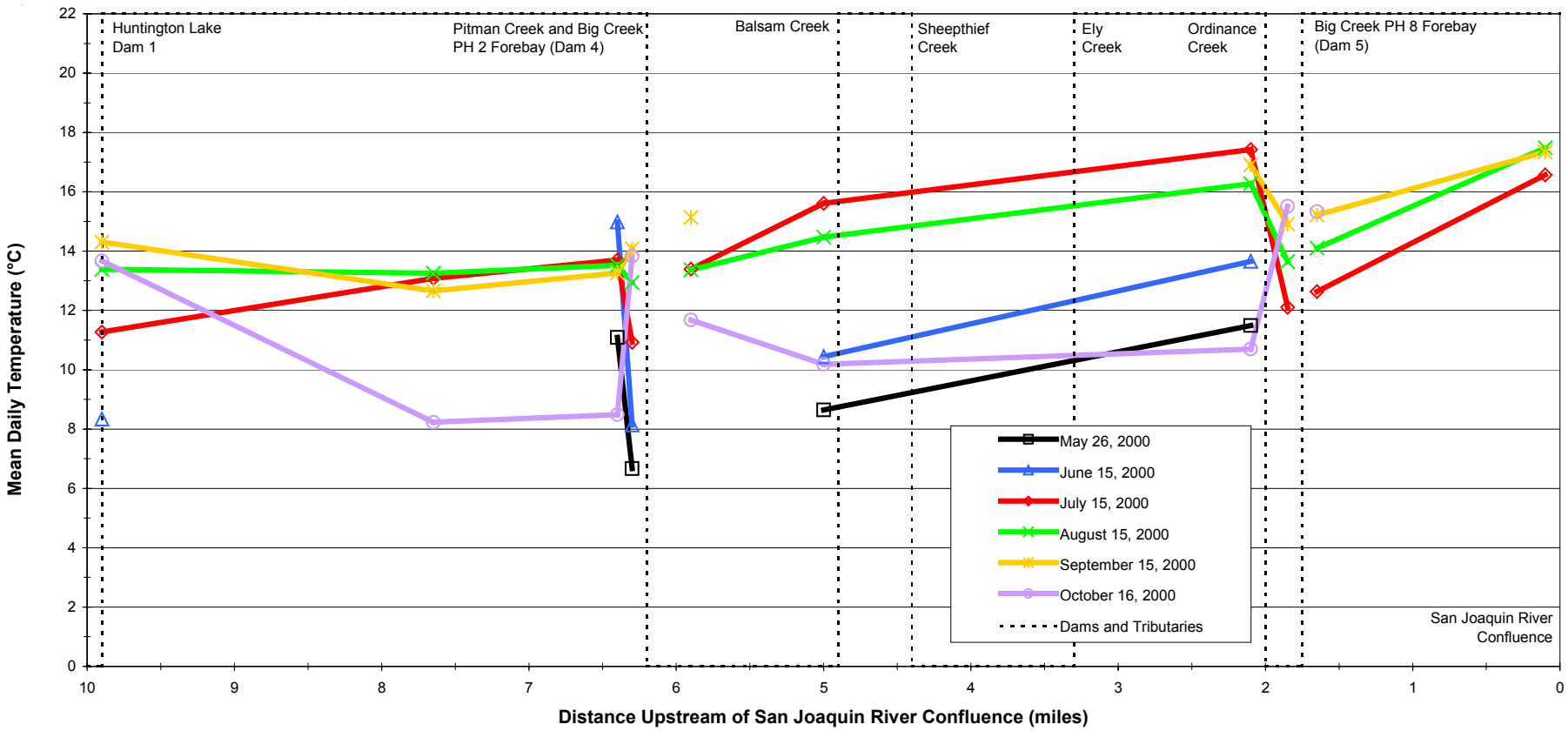


Figure CAWG 5-41. Big Creek Longitudinal Mid-Month Mean Daily Temperature Profile by Site, 2000.

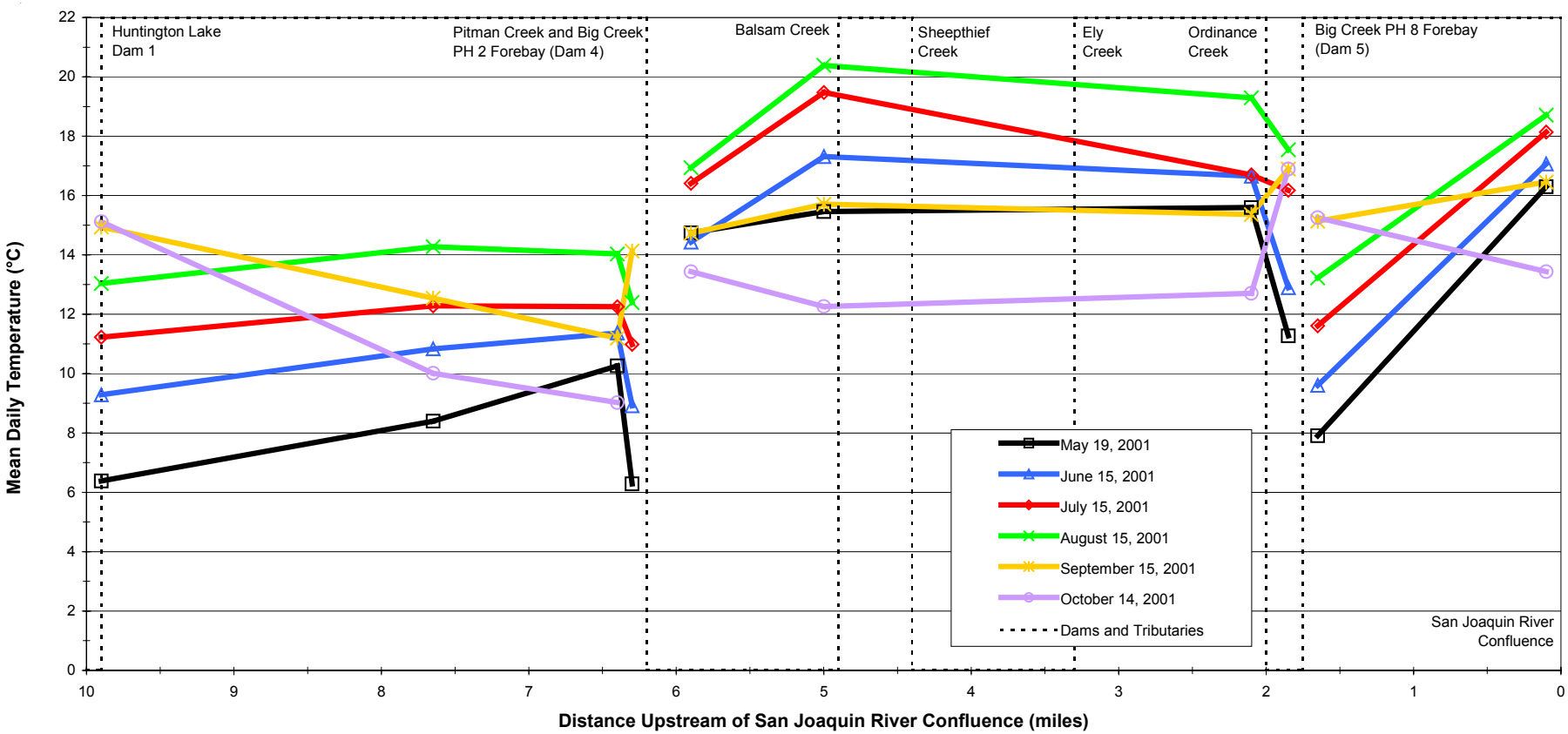


Figure CAWG 5-42. Big Creek Longitudinal Mid-Month Mean Daily Temperature Profile by Site, 2001.

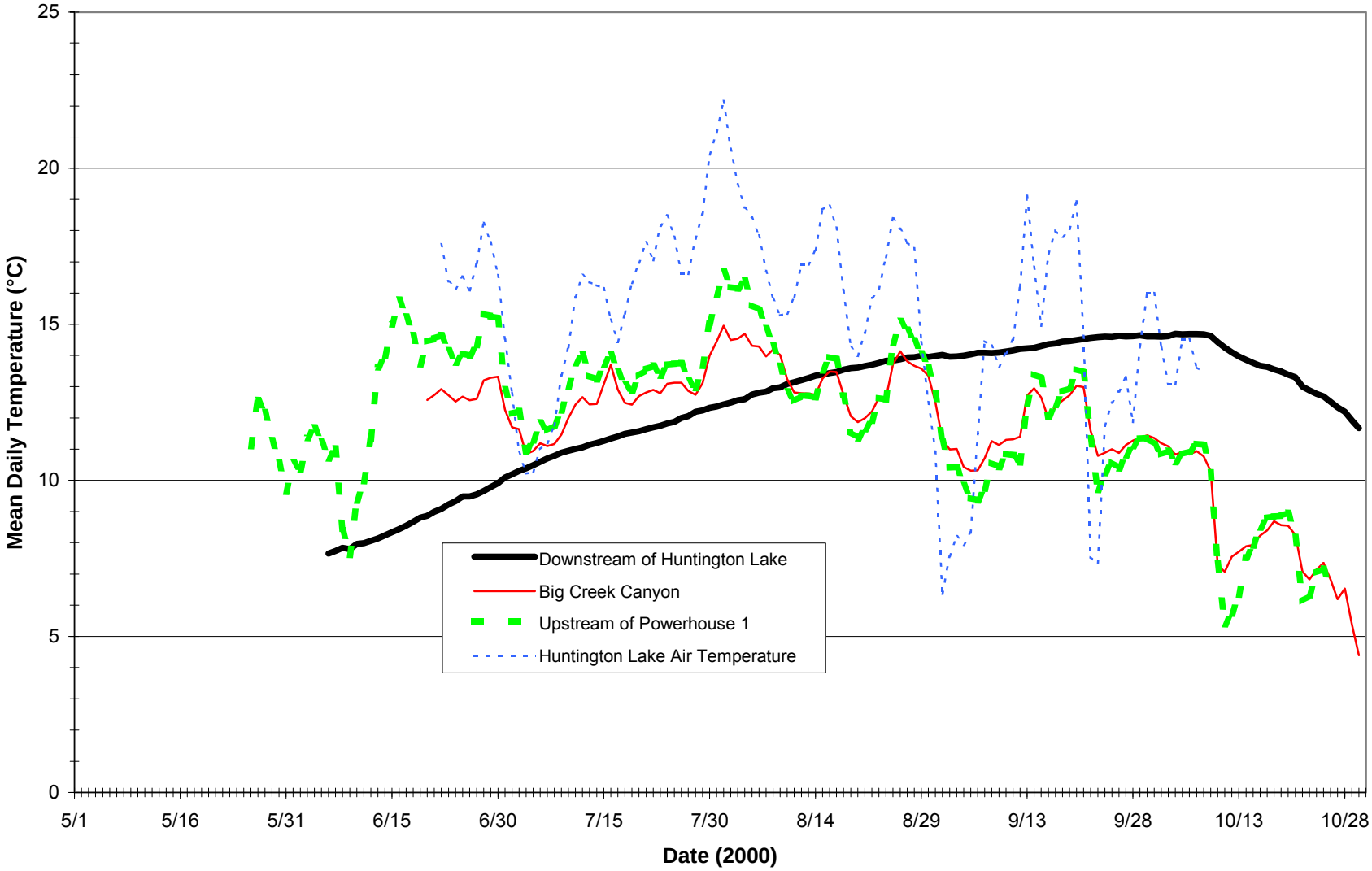


Figure CAWG 5-43. Big Creek Downstream of Huntington Lake Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures, 2000.

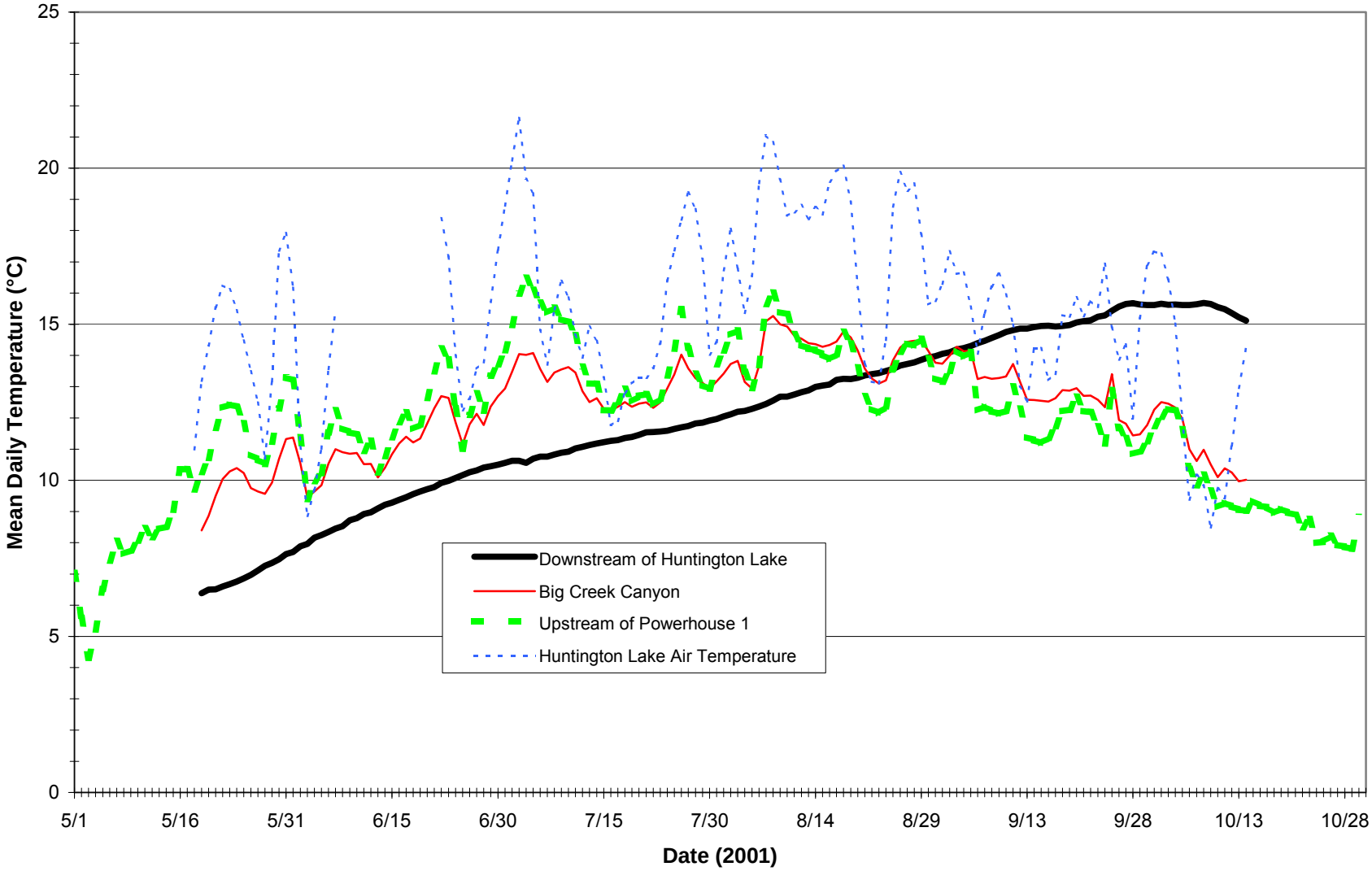


Figure CAWG 5-43. Big Creek Downstream of Huntington Lake Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures, 2001 (cont).

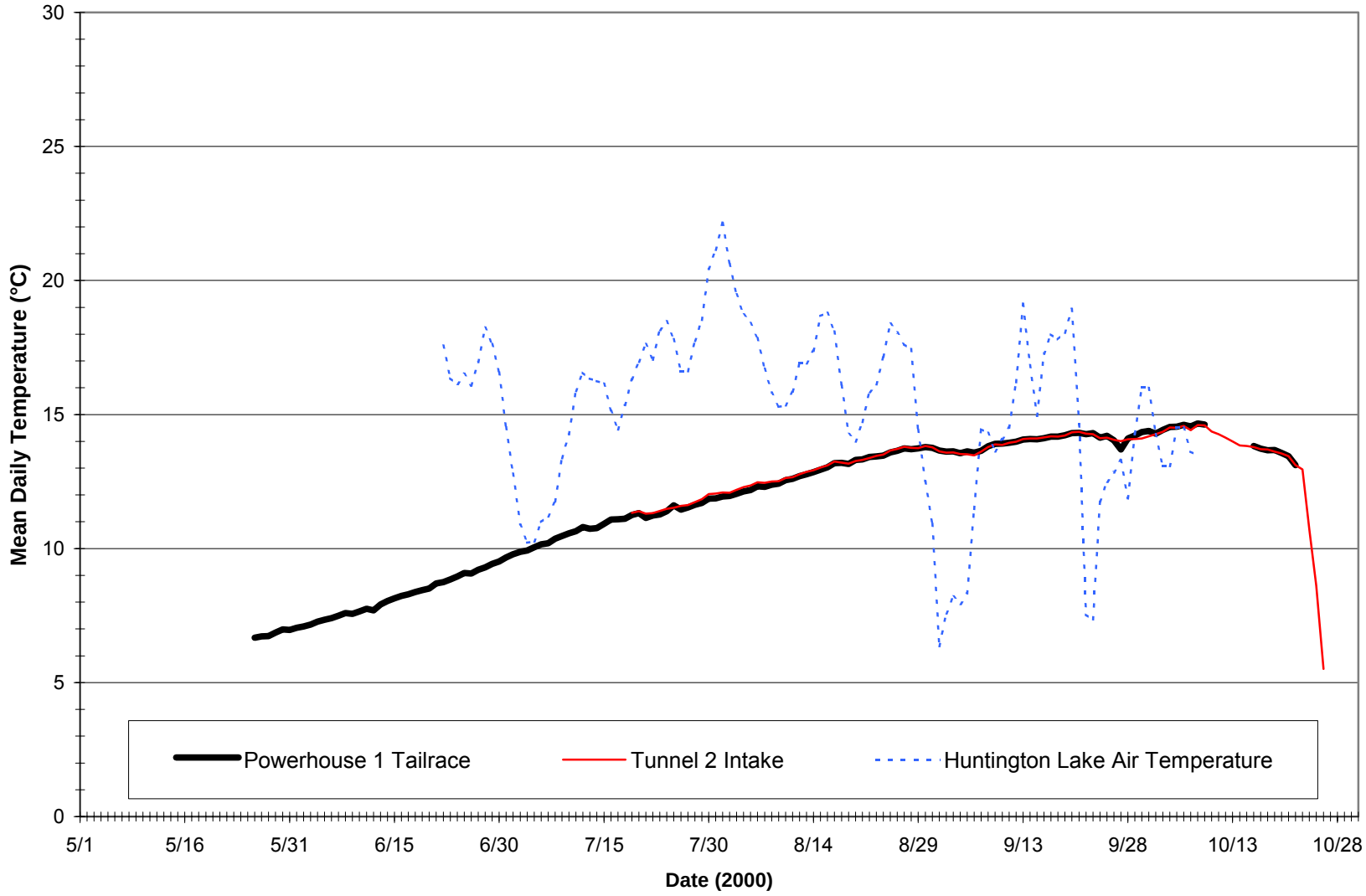


Figure CAWG 5-44. Big Creek Powerhouse 2 Forebay (Dam 4) Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperature, 2000.

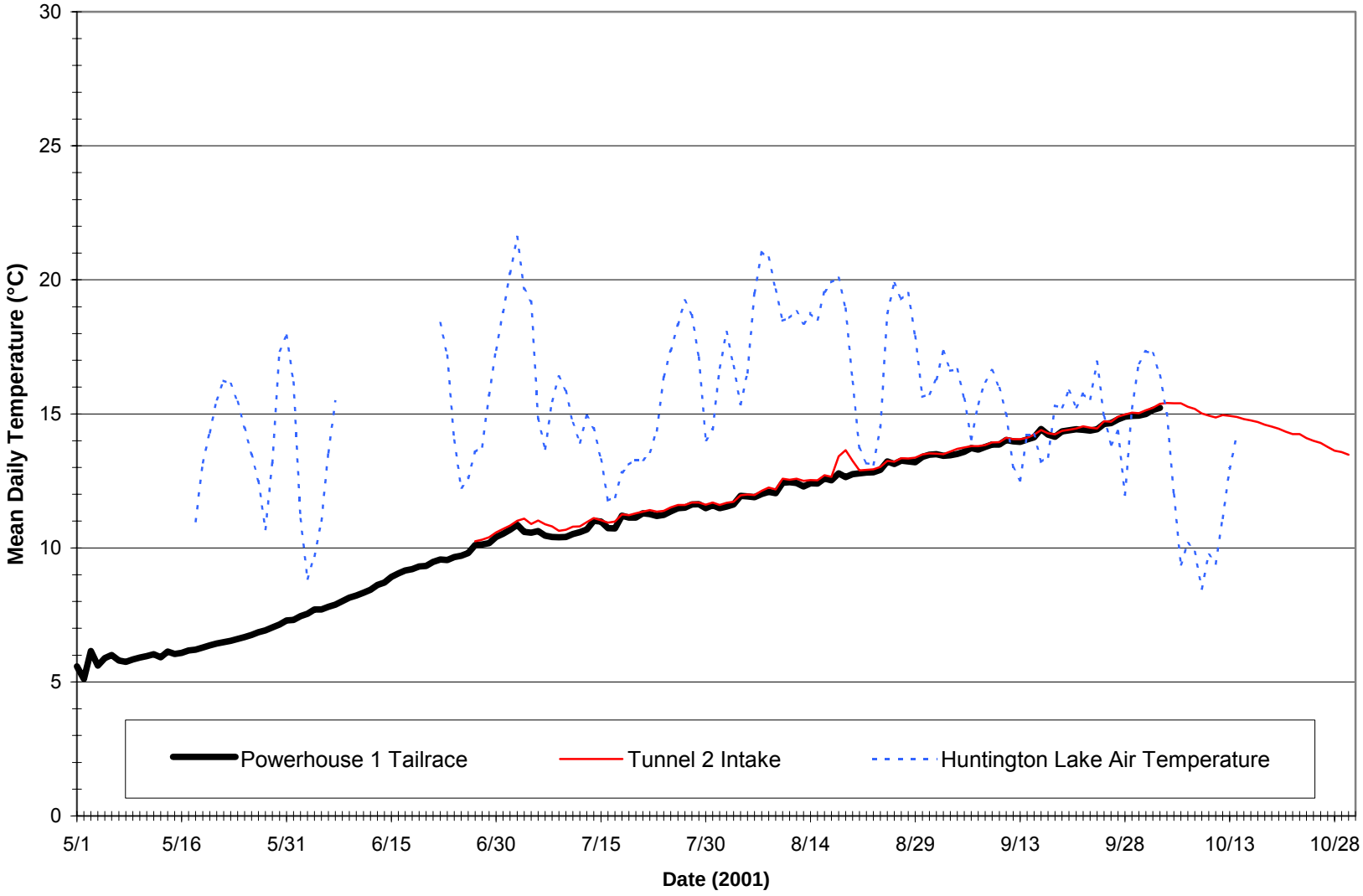


Figure CAWG 5-44. Big Creek Powerhouse 2 Forebay (Dam4) Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperature, 2001 (cont).

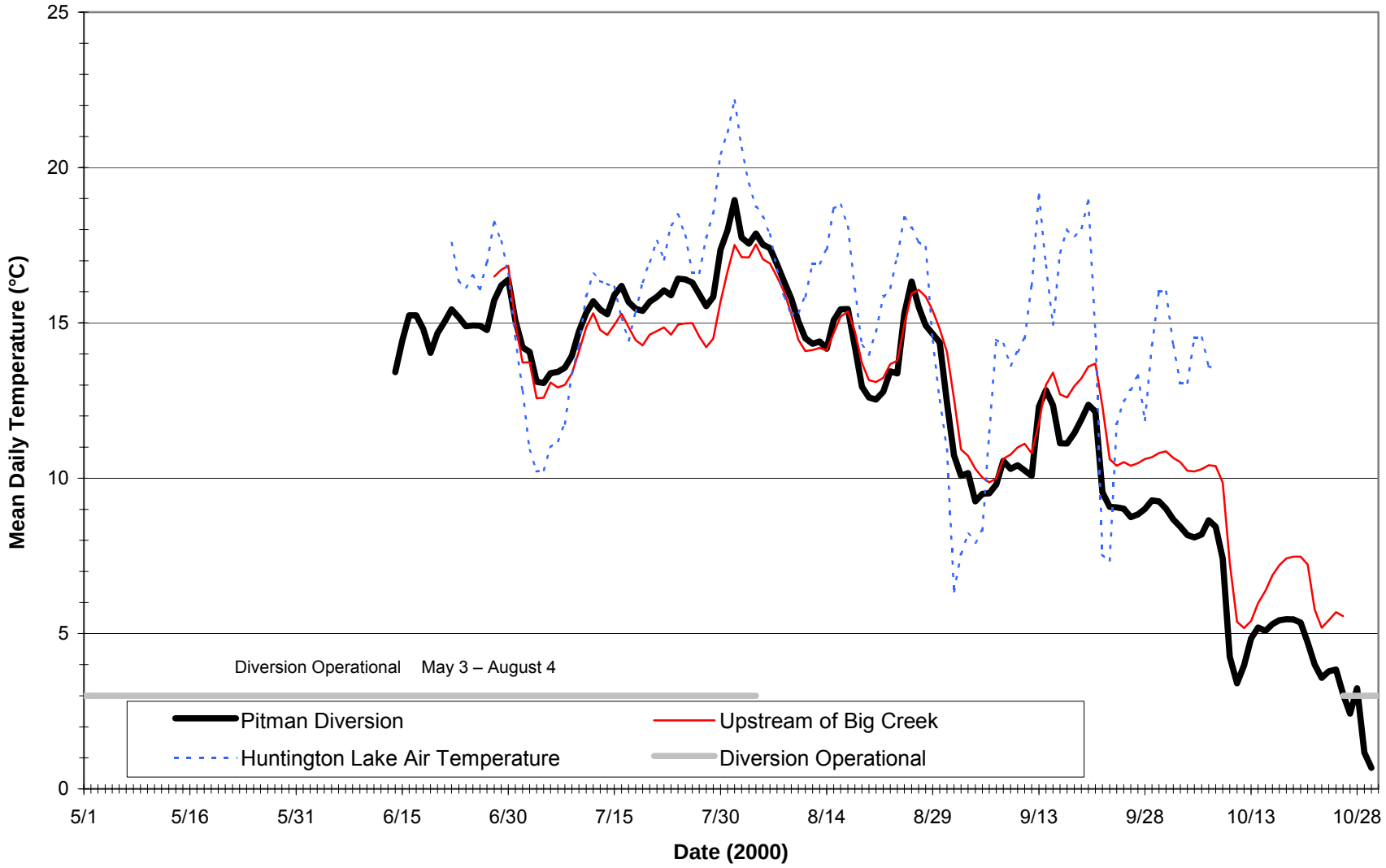


Figure CAWG 5-45. Pitman Creek Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures with Diversion Operations, 2000.

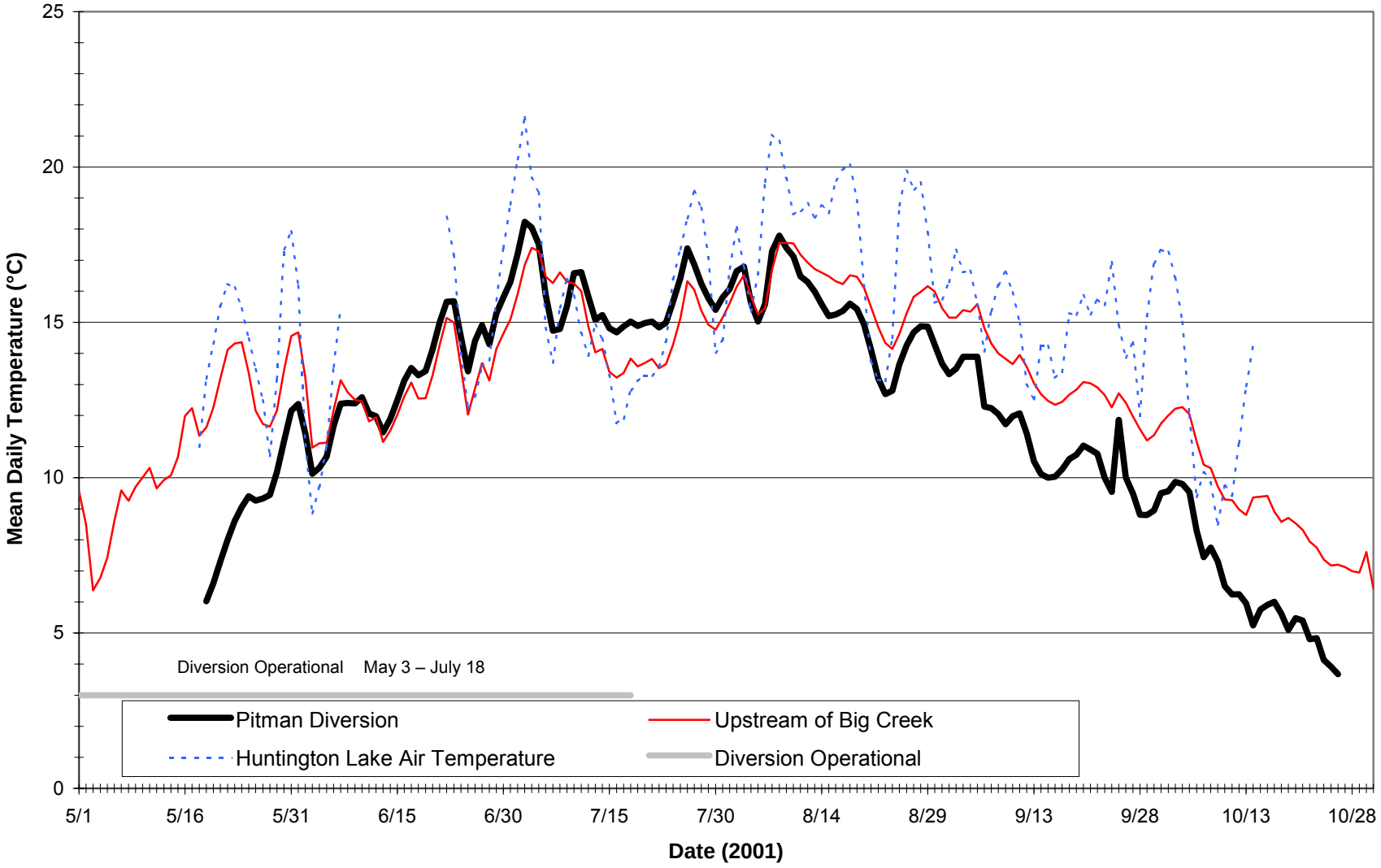


Figure CAWG 5-45. Pitman Creek Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures with Diversion Operations, 2001 (cont).

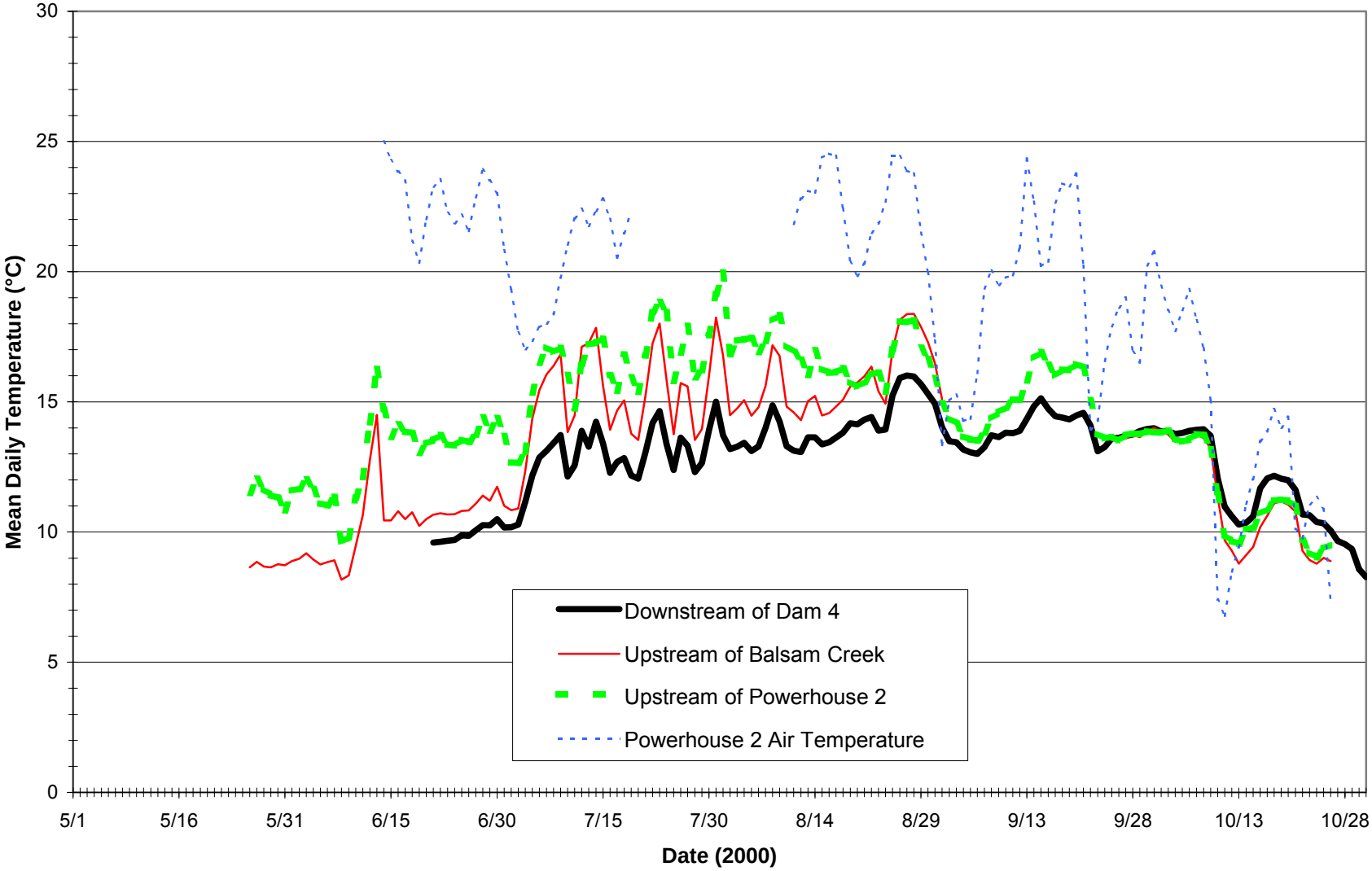


Figure CAWG 5-46. Big Creek Between Dam 4 and Powerhouse 2 Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures, 2000.

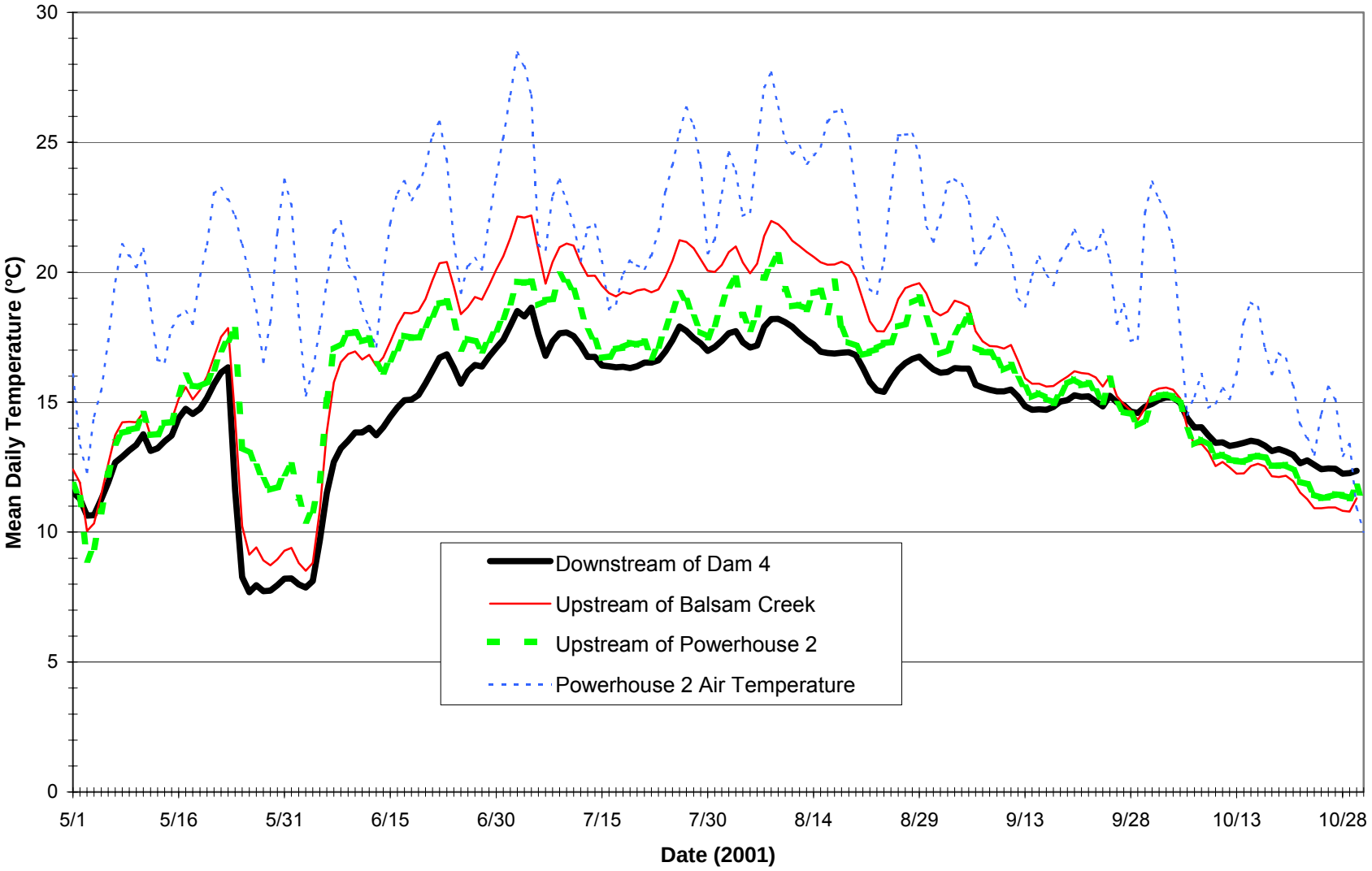


Figure CAWG 5-46. Big Creek Between Dam 4 and Powerhouse 2 Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures, 2001 (cont).

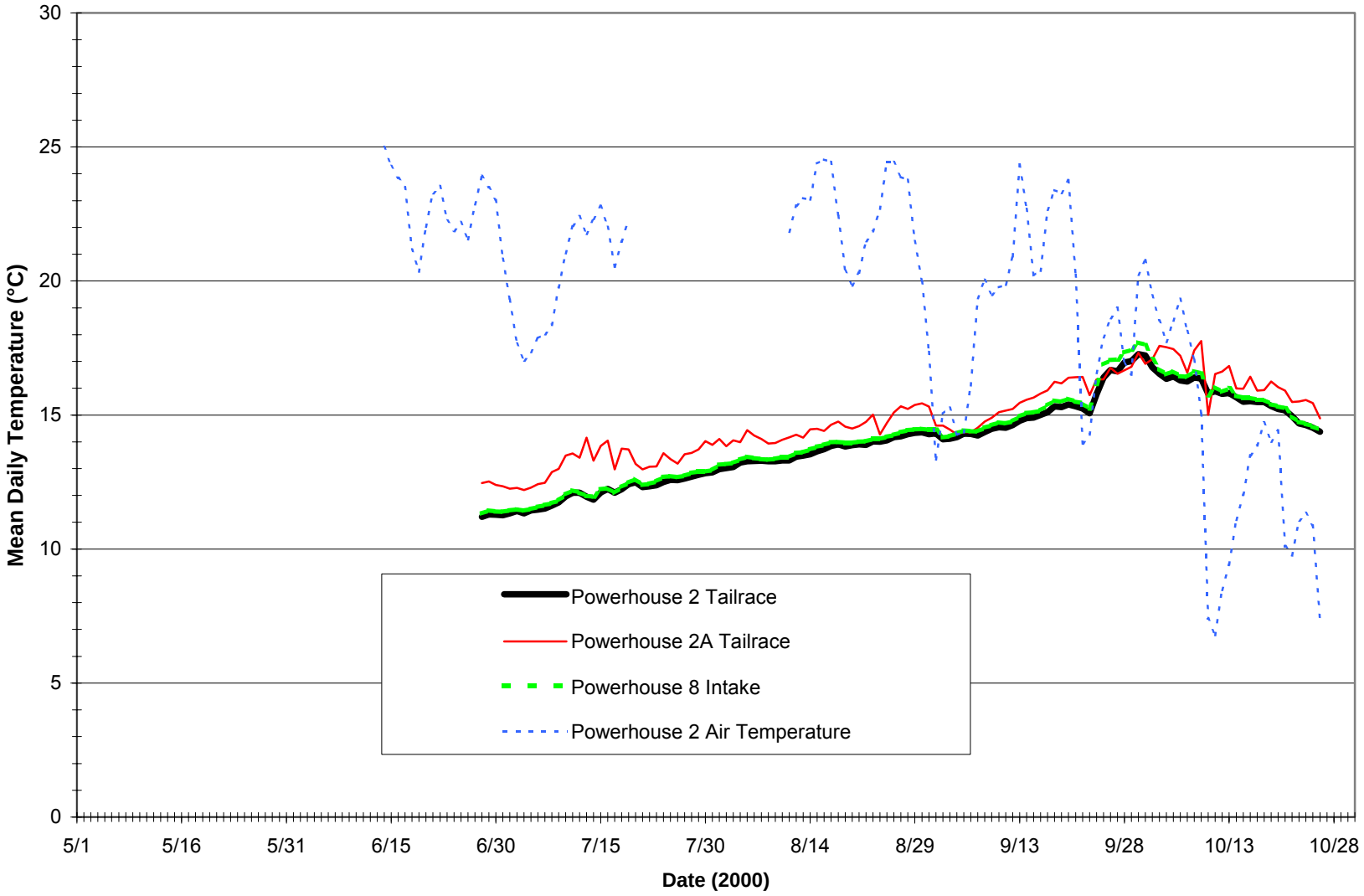


Figure CAWG 5-47. Big Creek Powerhouse 8 Forebay (Dam 5) Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperature, 2000.

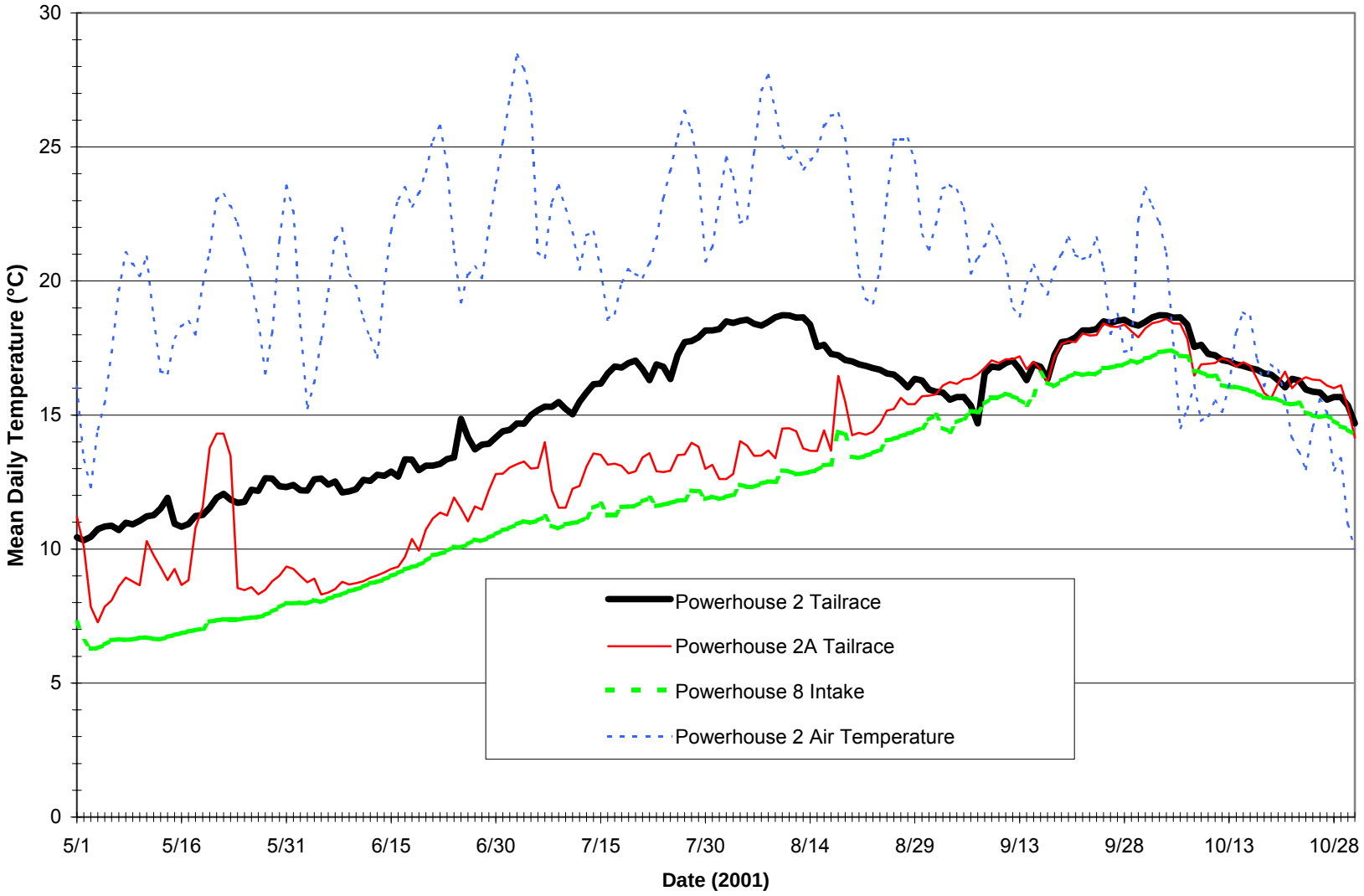


Figure CAWG 5-47. Big Creek Powerhouse 8 Forebay (Dam 5) Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures, 2001 (cont).

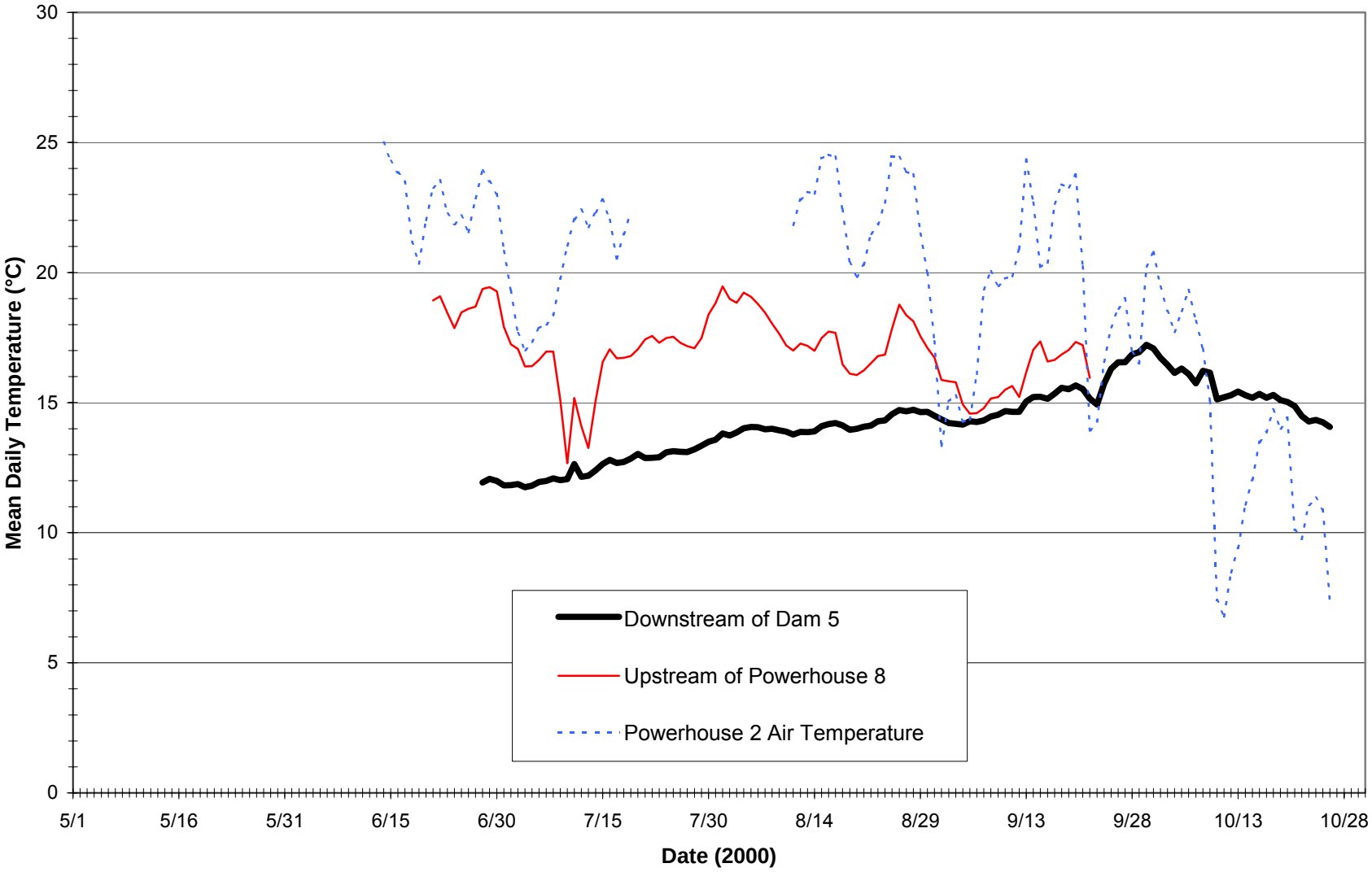


Figure CAWG 5-48. Big Creek Dam 5 to Powerhouse 8 Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures, 2000.

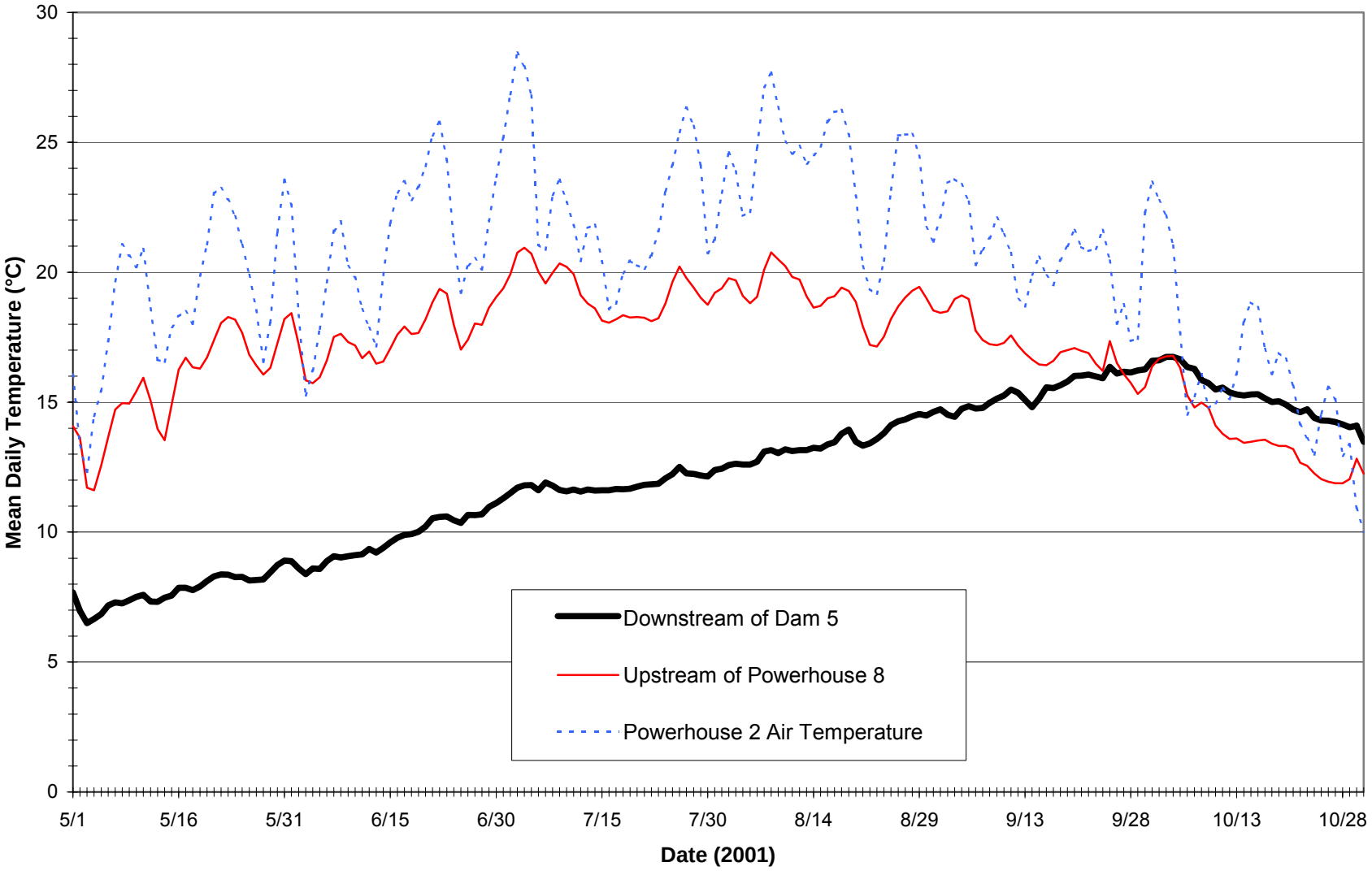


Figure CAWG 5-48. Big Creek Dam 5 to Powerhouse 8 Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures, 2001 (cont).

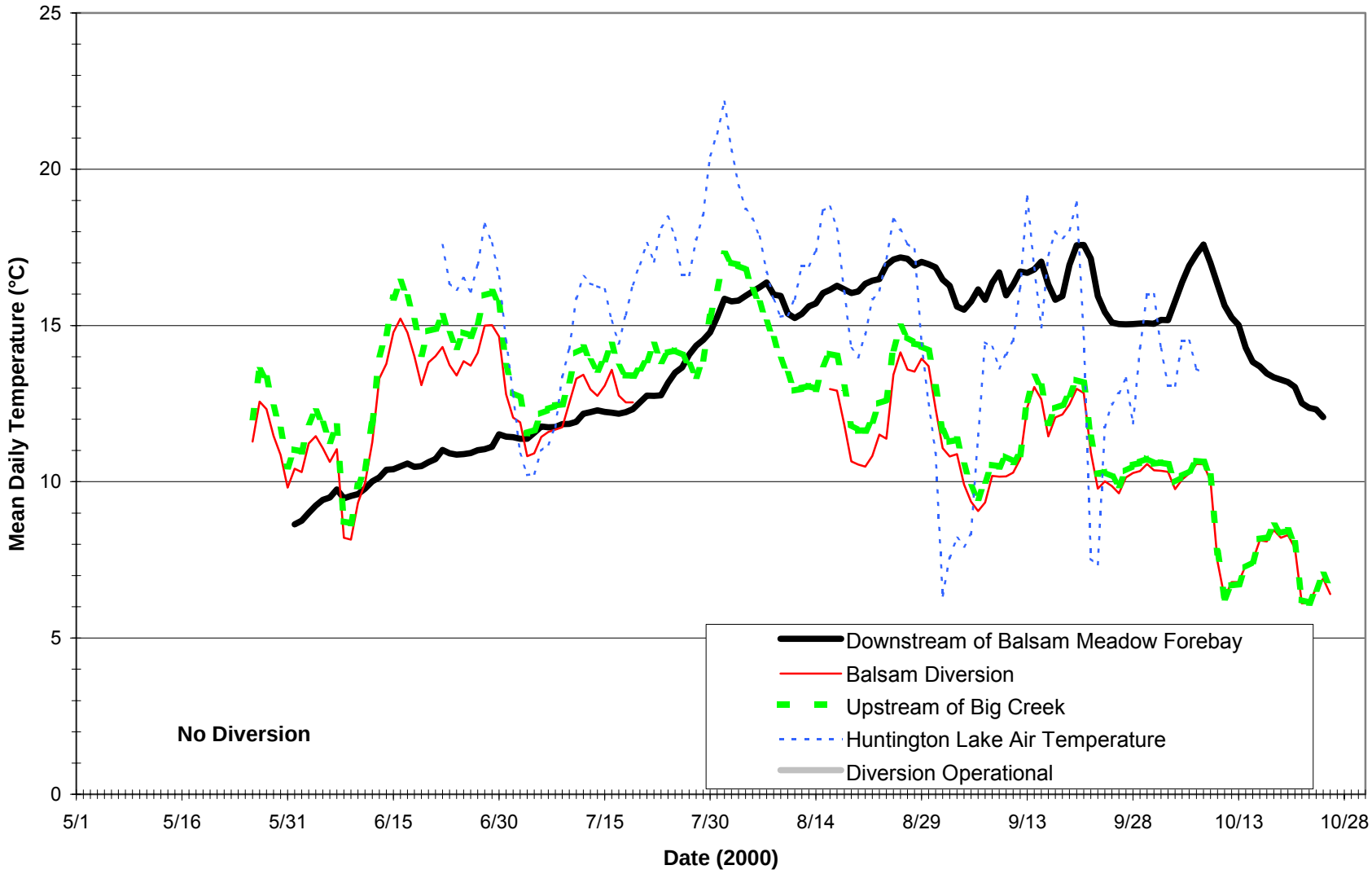


Figure CAWG 5-49. Balsam Creek Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures with Diversion Operations, 2000.

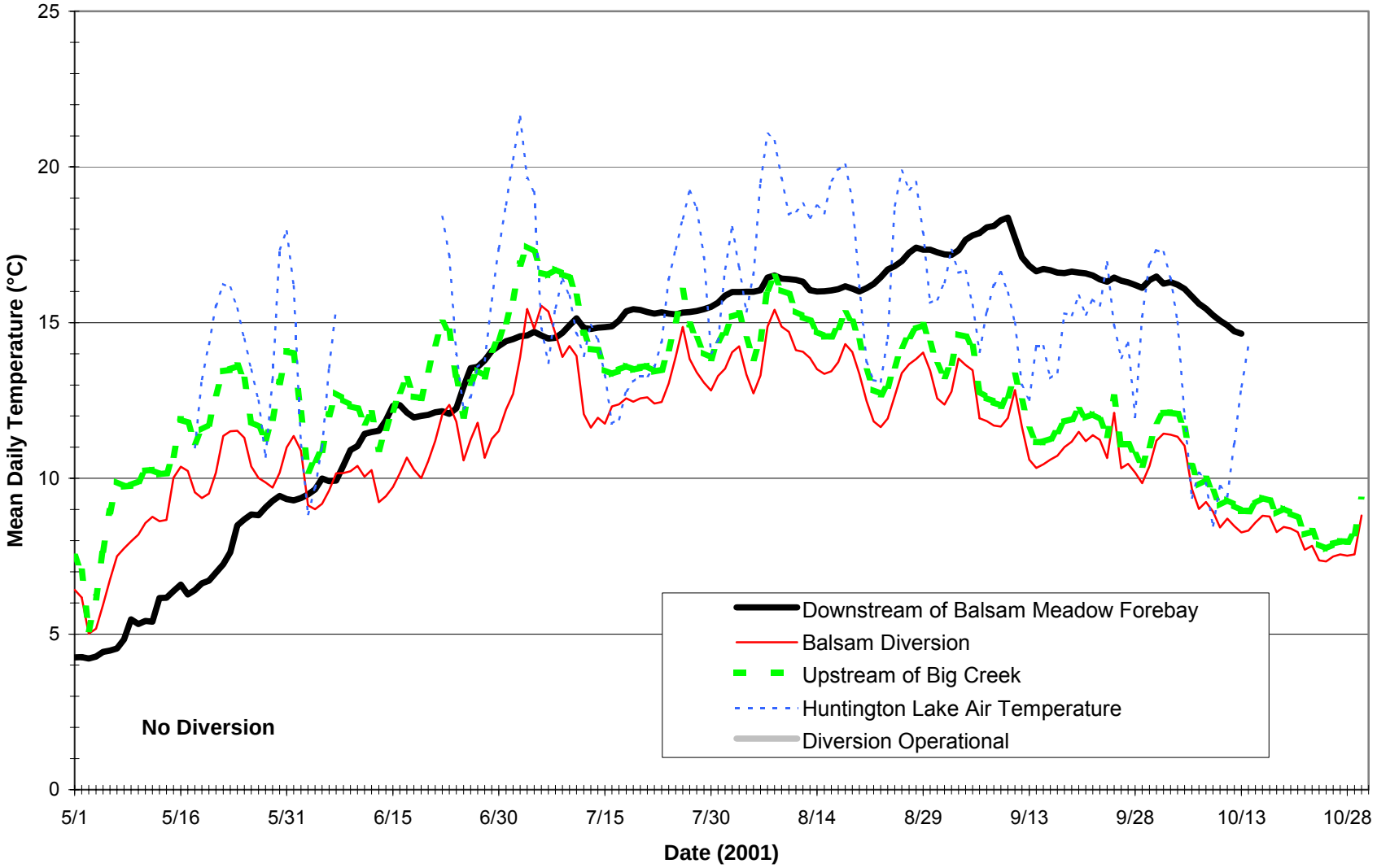


Figure CAWG 5-49. Balsam Creek Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures with Diversion Operations, 2001 (cont).

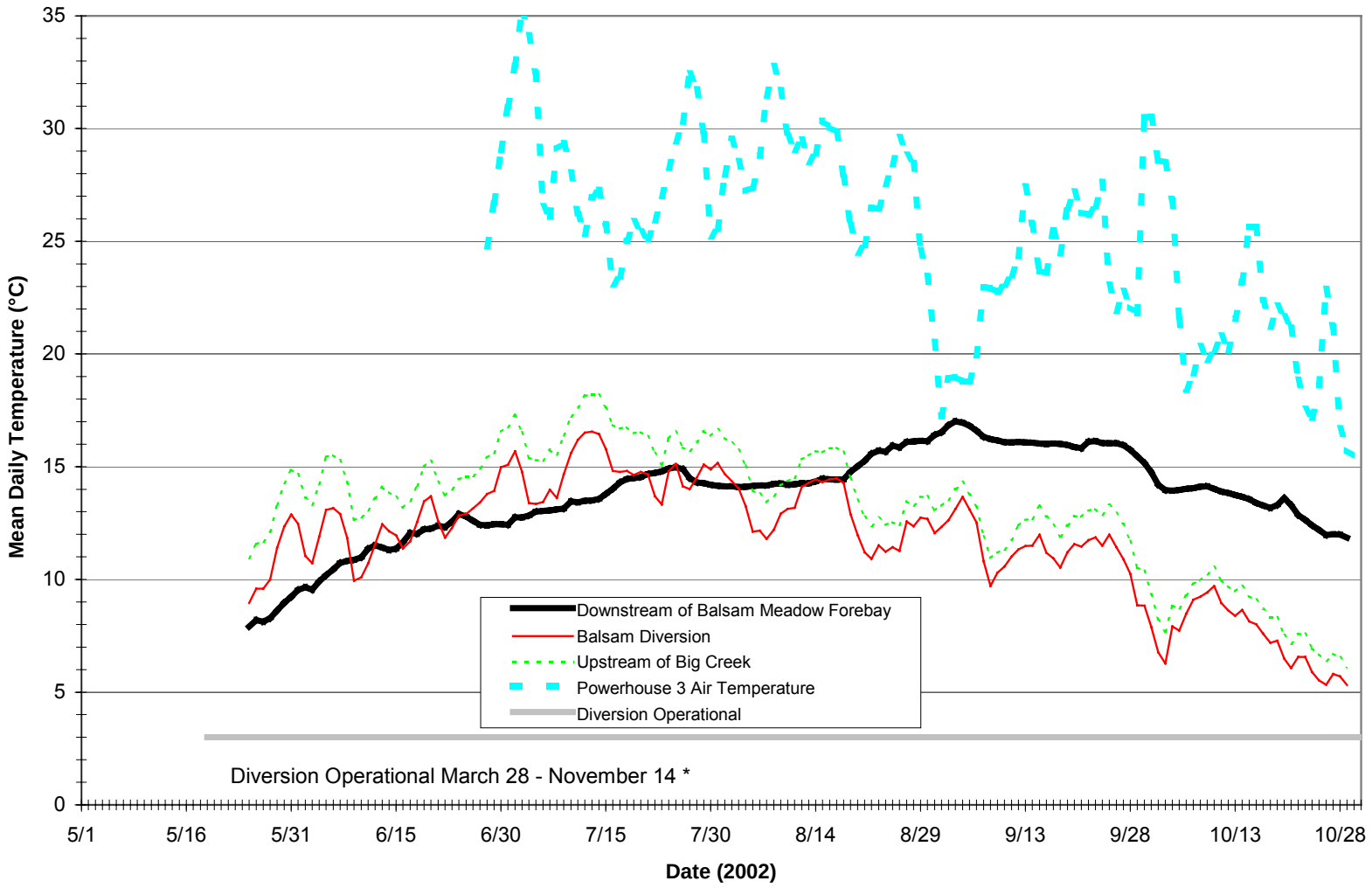


Figure CAWG 5-49. Balsam Creek Mean Daily Water Temperatures and Huntington Lake Mean Daily Air Temperatures with Diversion Operations, 2002 (cont).

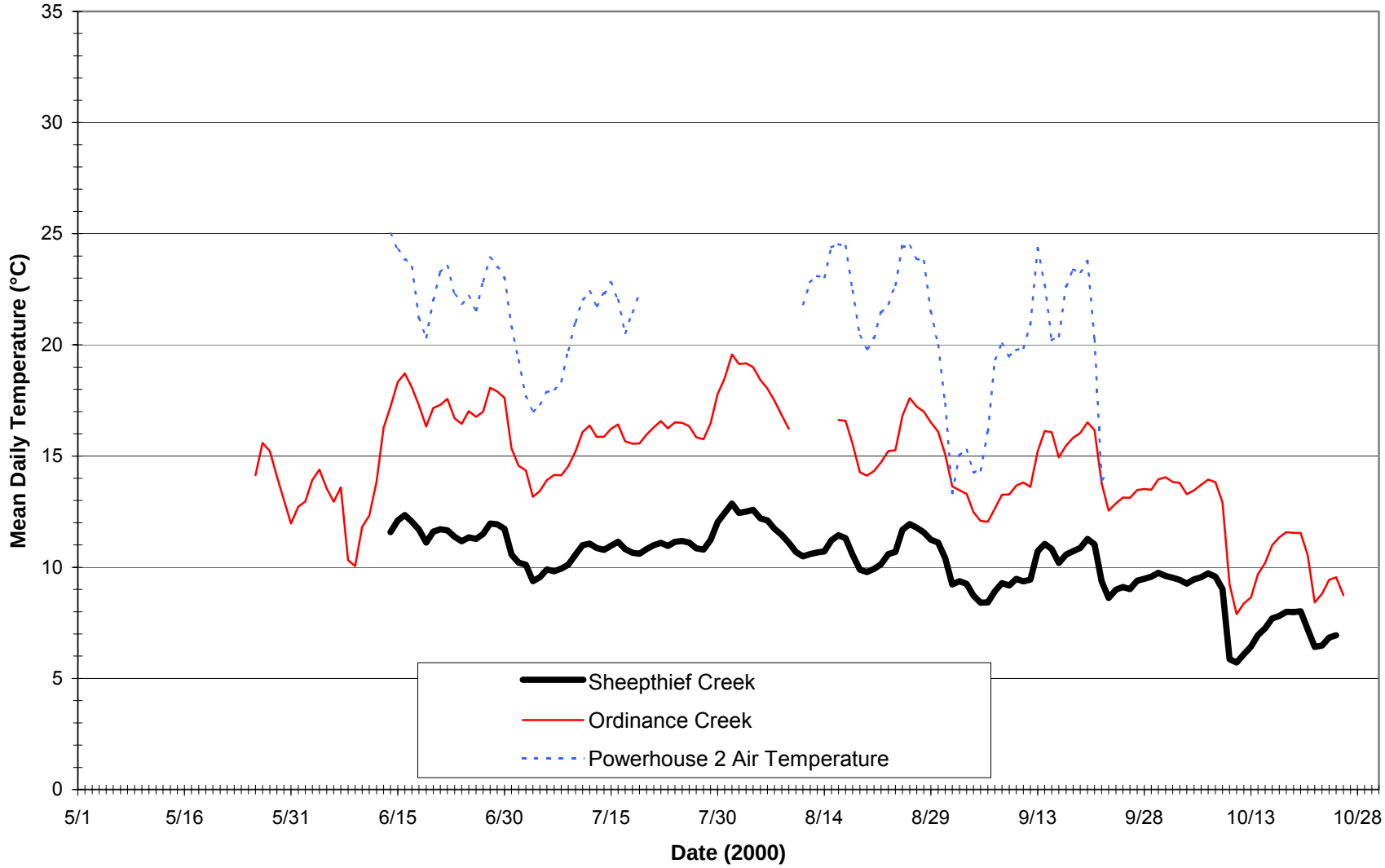


Figure CAWG 5-50. Undiverted Tributaries of Big Creek Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures, 2000.

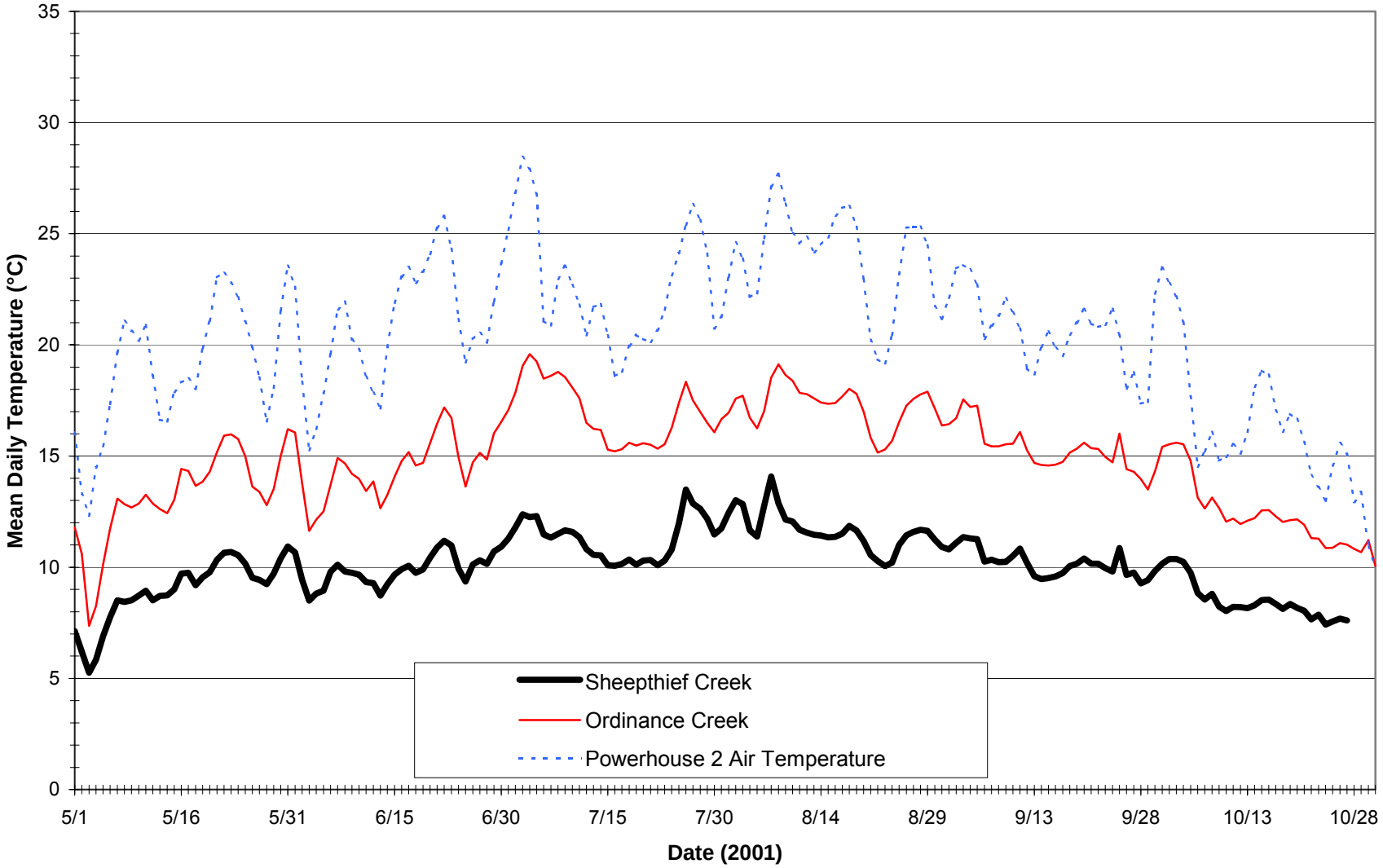


Figure CAWG 5-50. Undiverted Tributaries of Big Creek Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures, 2001 (cont).

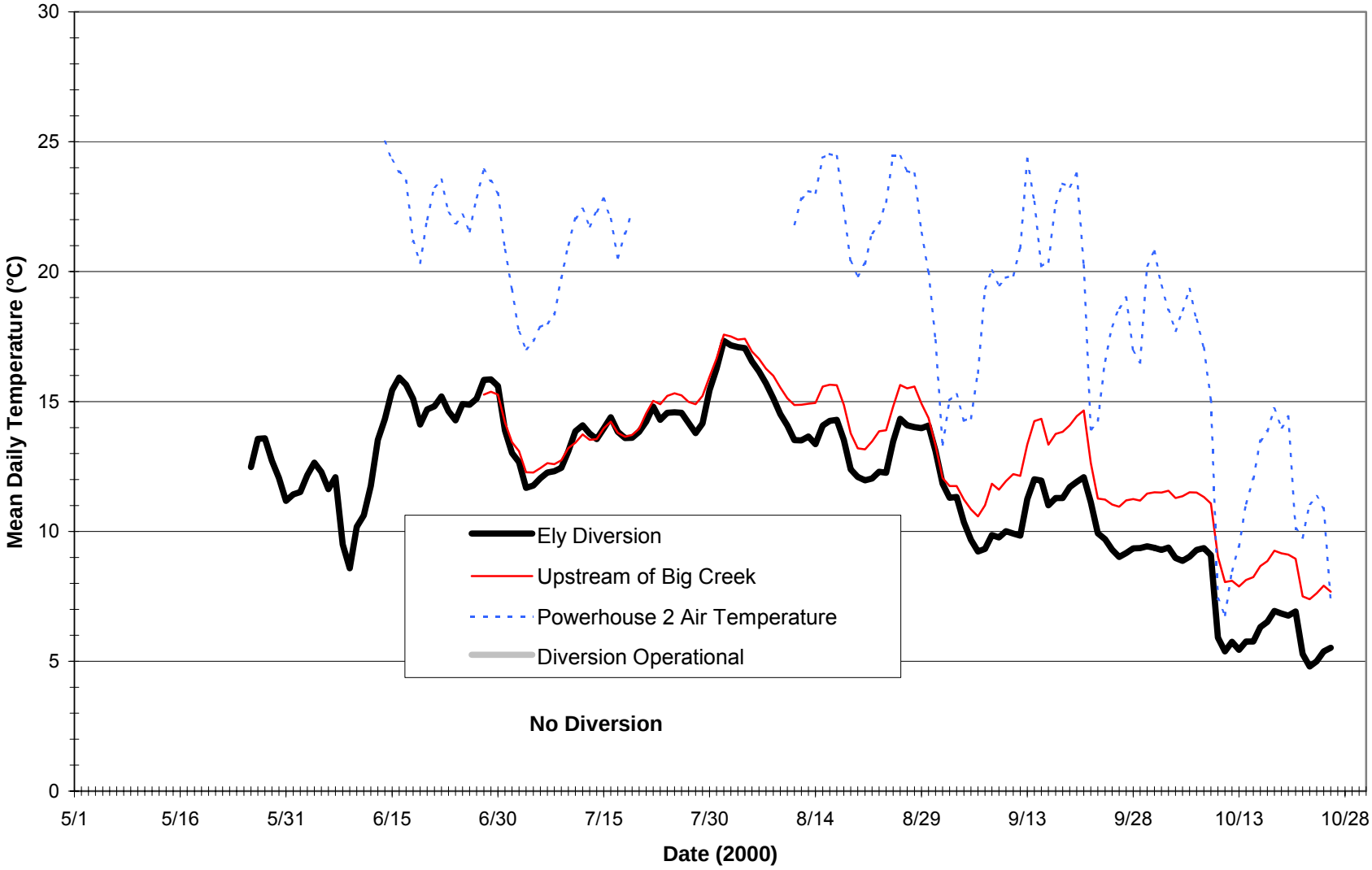


Figure CAWG 5-51. Ely Creek Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures with Diversion Operations, 2000.

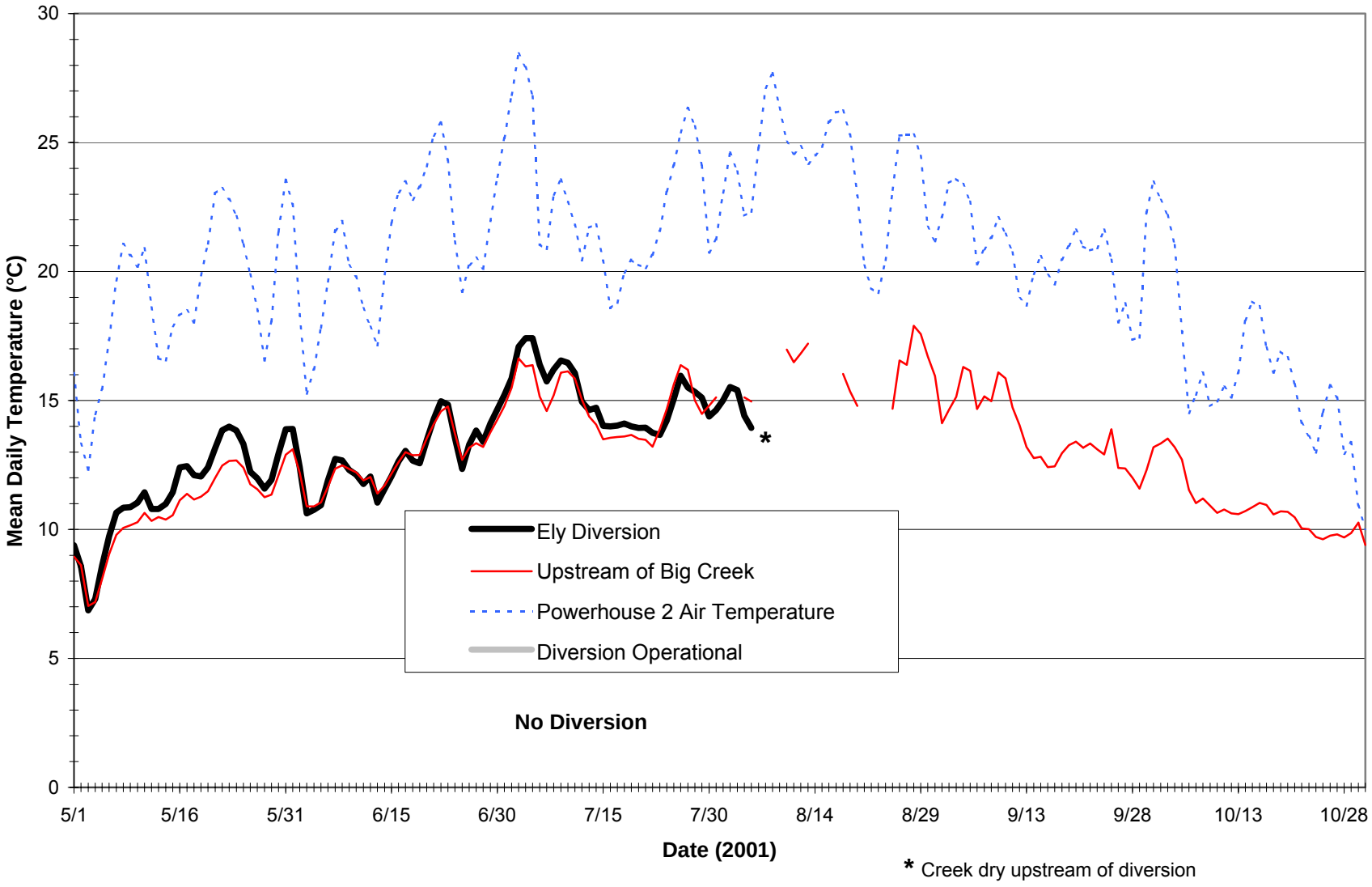


Figure CAWG 5-51. Ely Creek Mean Daily Water Temperatures and Powerhouse 2 Mean Daily Air Temperatures with Diversion Operations, 2001 (cont).

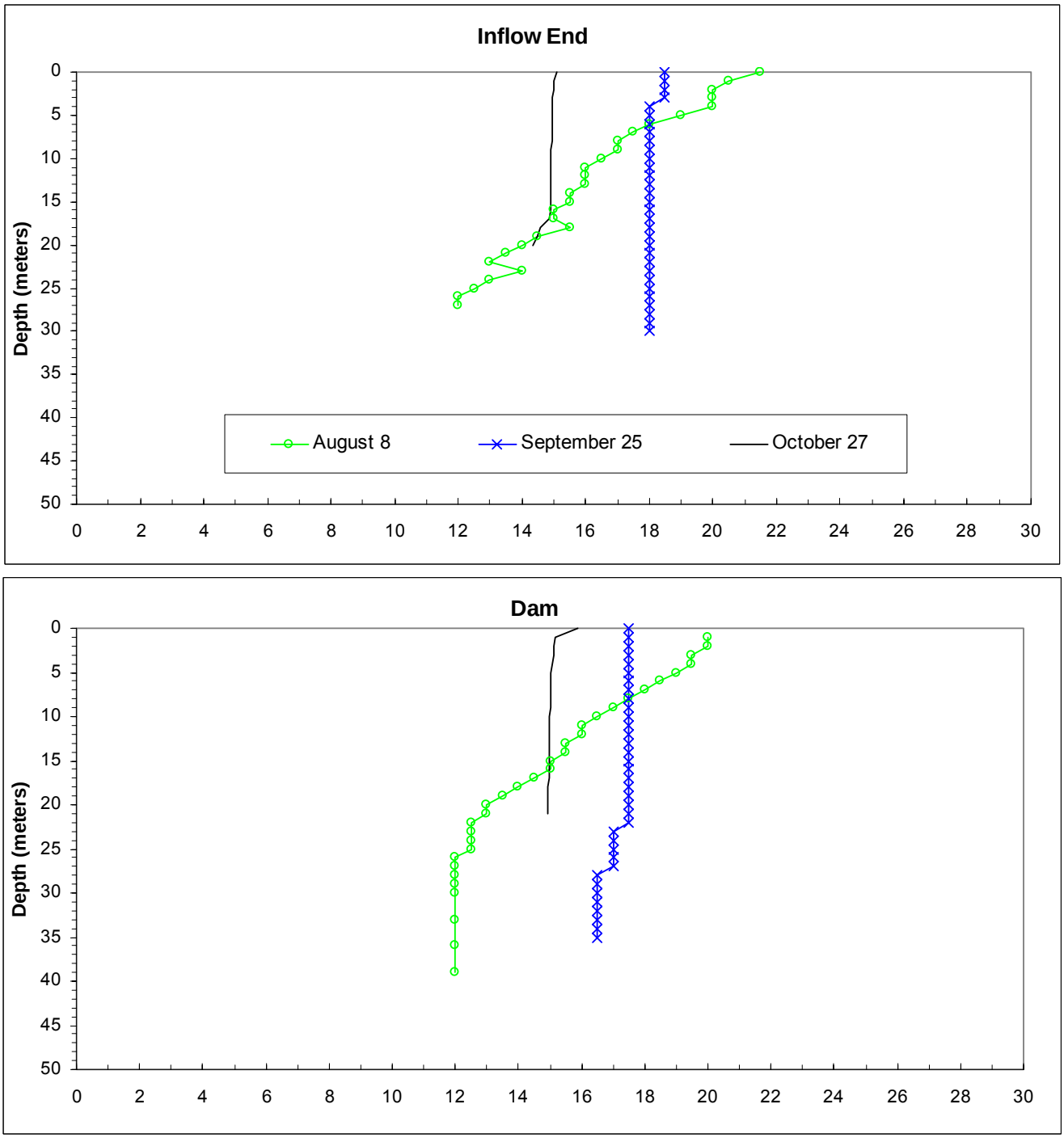


Figure CAWG 5-52. Shaver Lake Water Temperature Profiles, 2000.

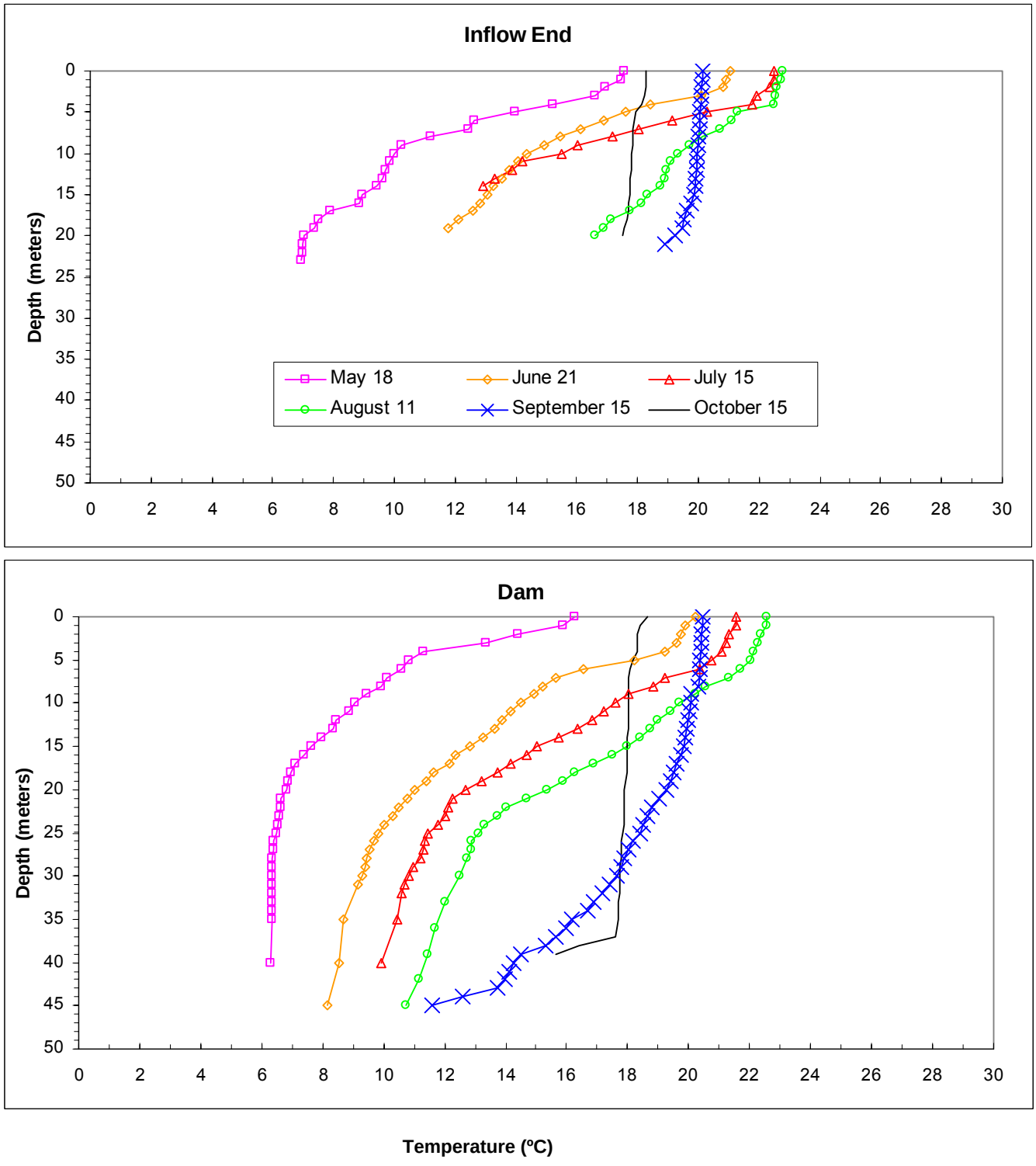


Figure CAWG 5-53. Shaver Lake Water Temperature Profiles, 2001.

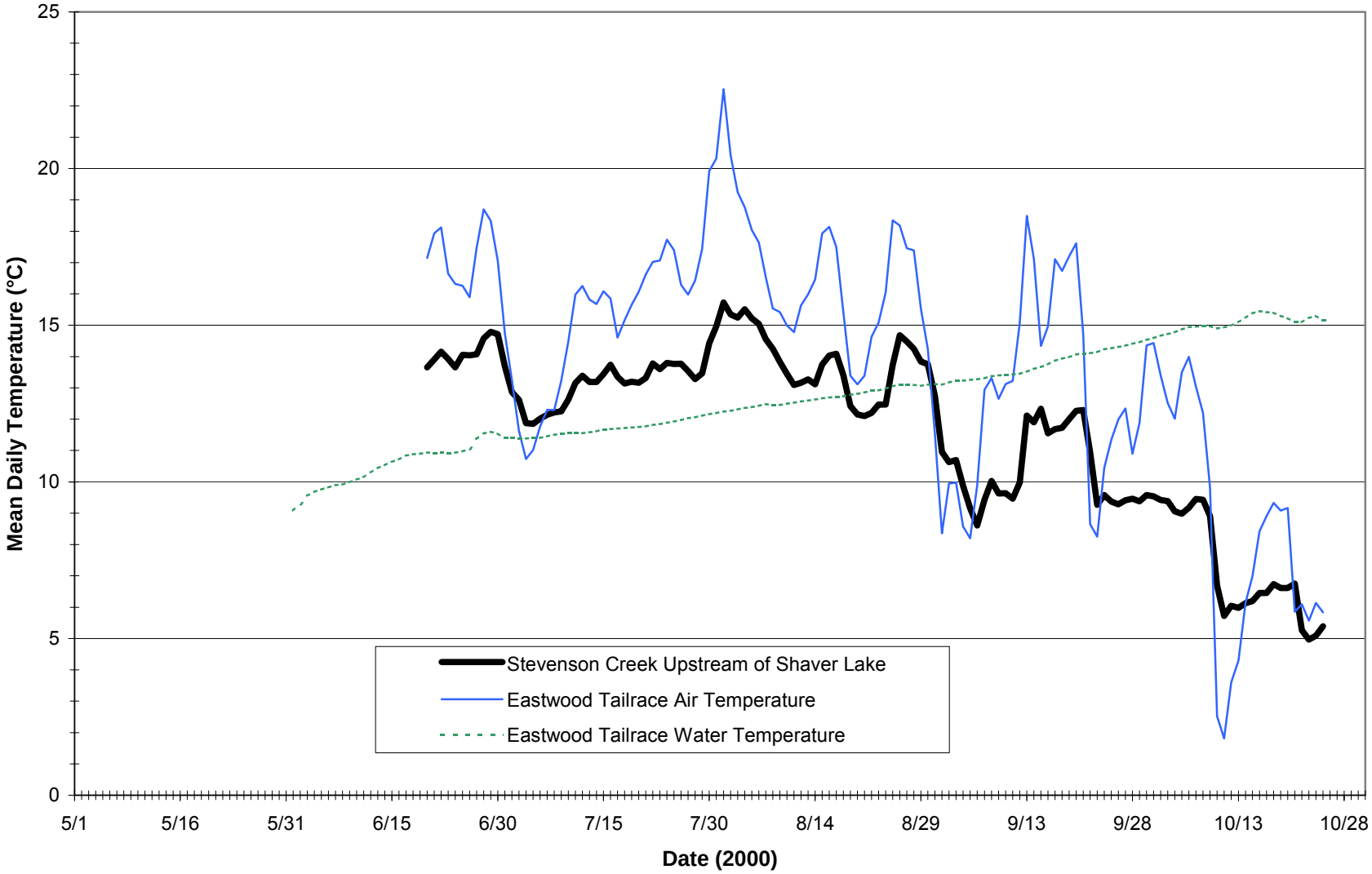


Figure CAWG 5-54. Inflows to Shaver Lake Mean Daily Water Temperatures and Eastwood Tailrace Mean Daily Air Temperatures, 2000.

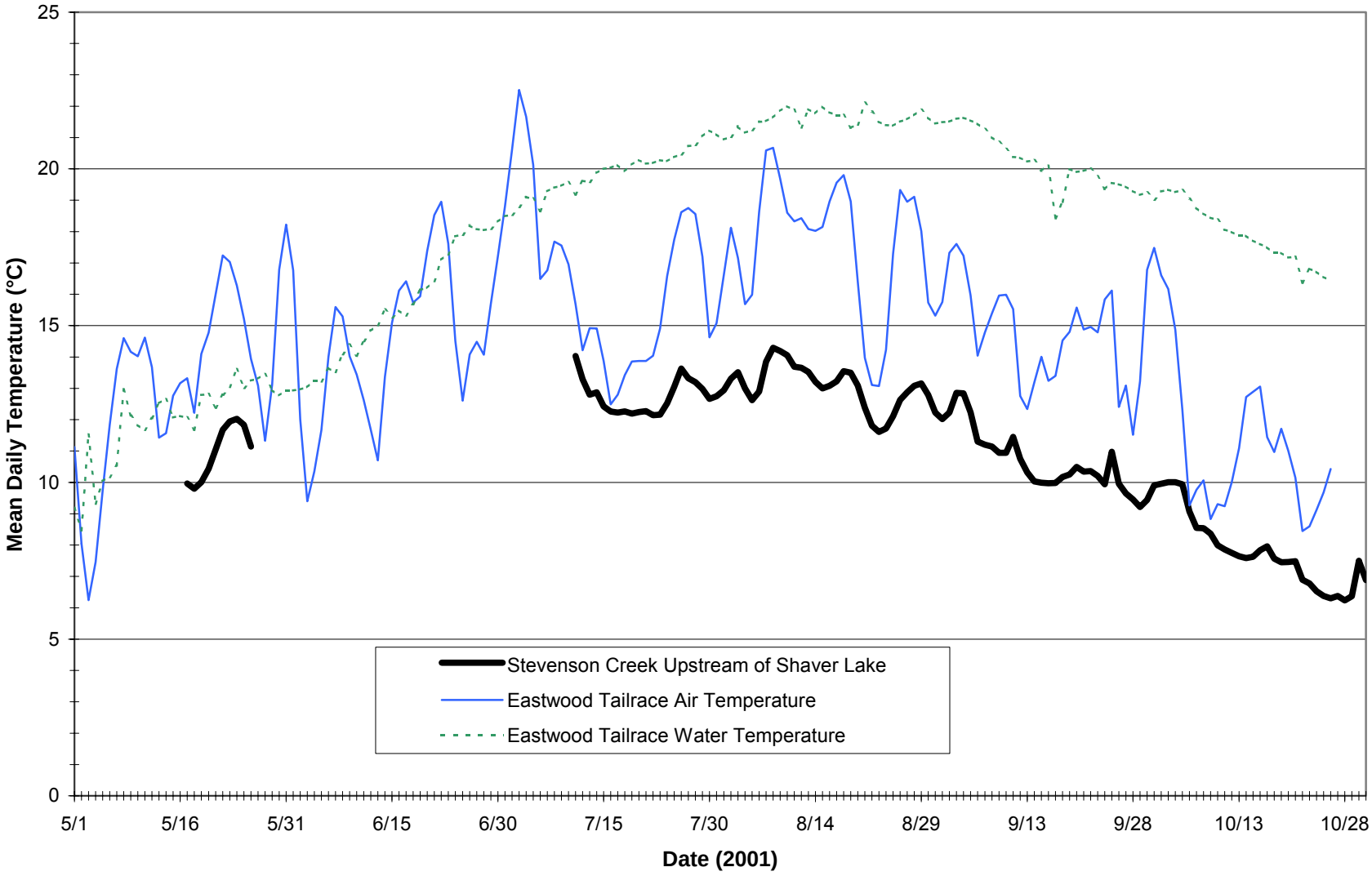


Figure CAWG 5-54. Inflows to Shaver Lake Mean Daily Water Temperatures and Eastwood Tailrace Mean Daily Air Temperatures, 2001 (cont).

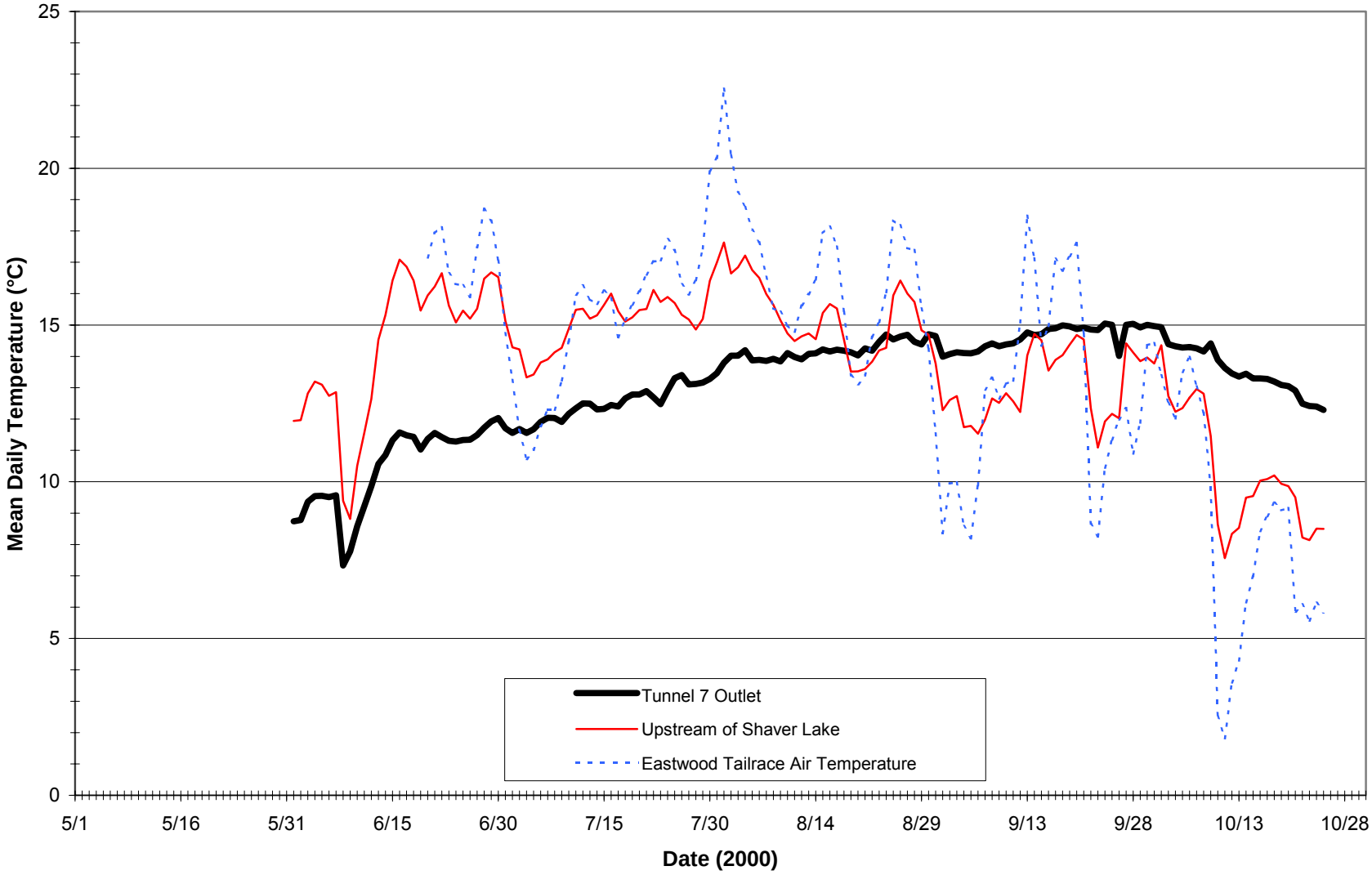


Figure CAWG 5-55. North Fork Stevenson Creek Mean Daily Water Temperatures and Eastwood Tailrace Mean Daily Air Temperatures, 2000.

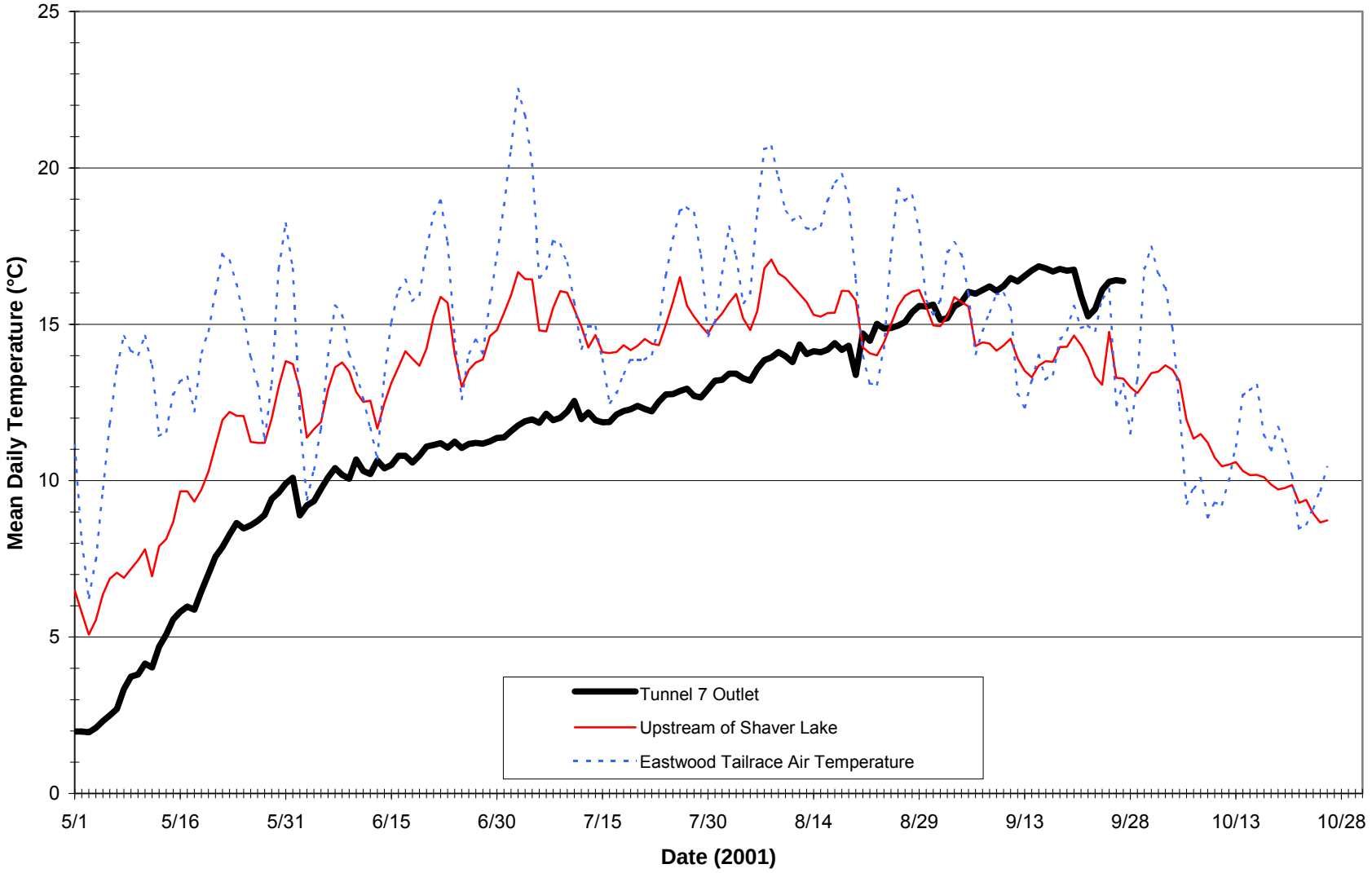


Figure CAWG 5-55. North Fork Stevenson Creek Mean Daily Water Temperatures and Eastwood Tailrace Mean Daily Air Temperatures, 2001 (cont).

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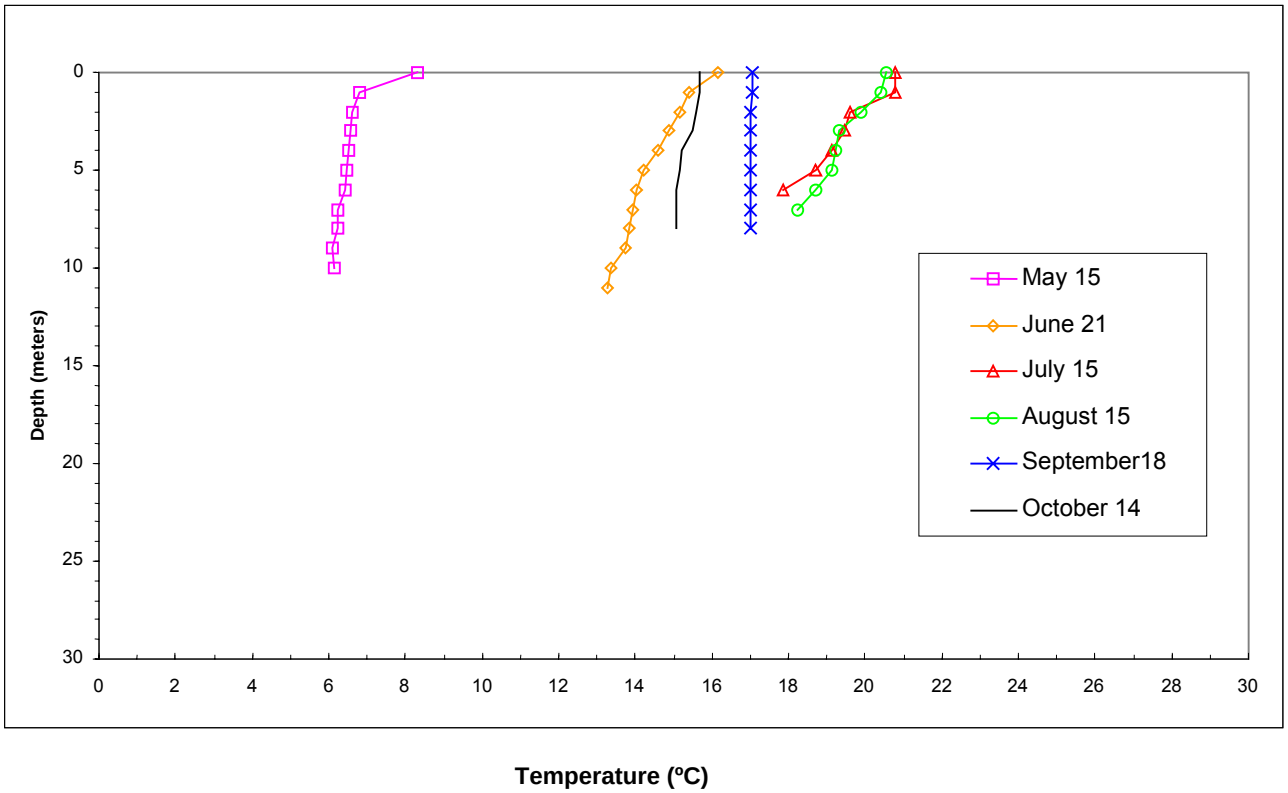

Figure CAWG 5-56. Balsam Meadow Forebay Water Temperature Profiles, 2001.

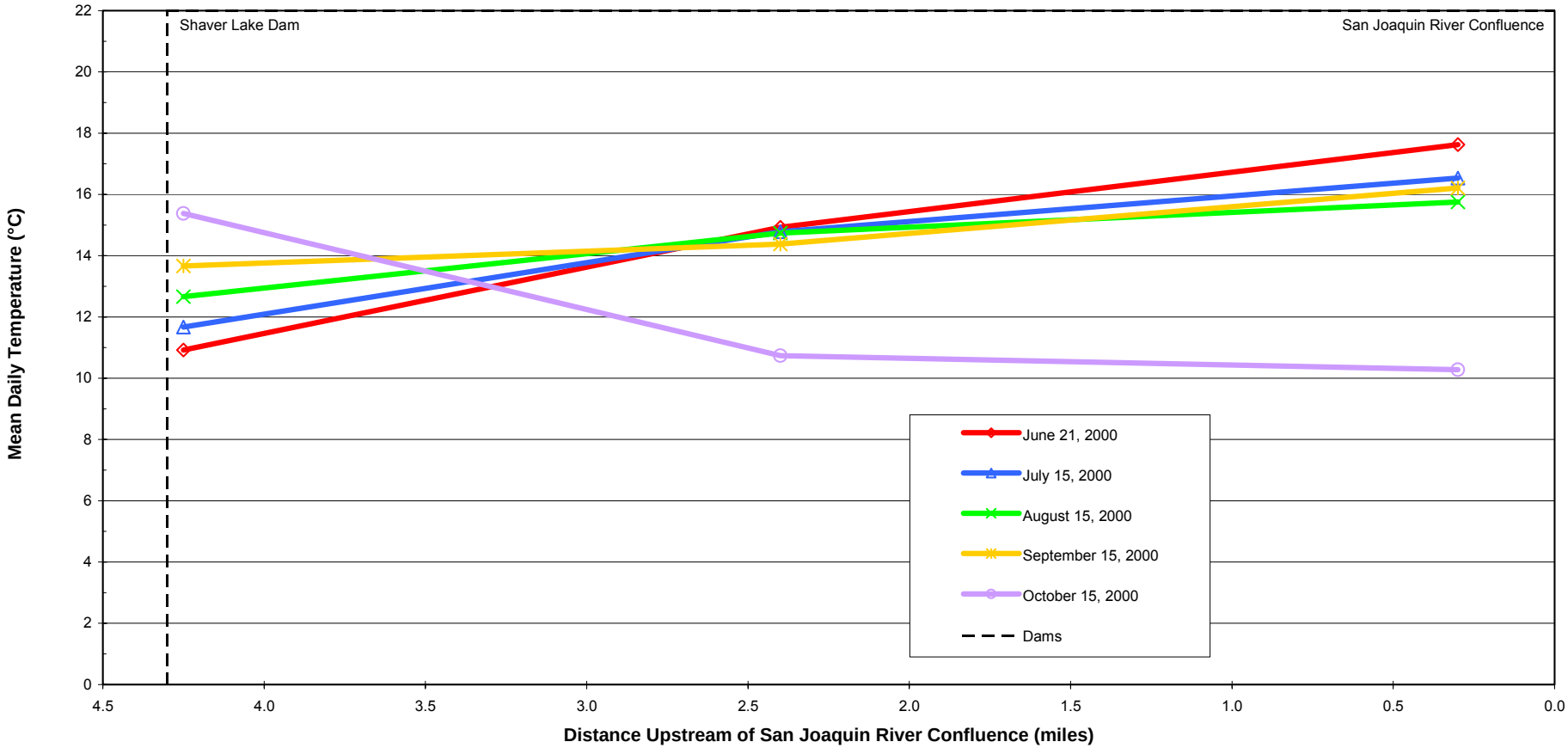

Figure CAWG 5-57. Stevenson Creek Longitudinal Mid-Month Mean Daily Temperature Profile by Site, 2000.

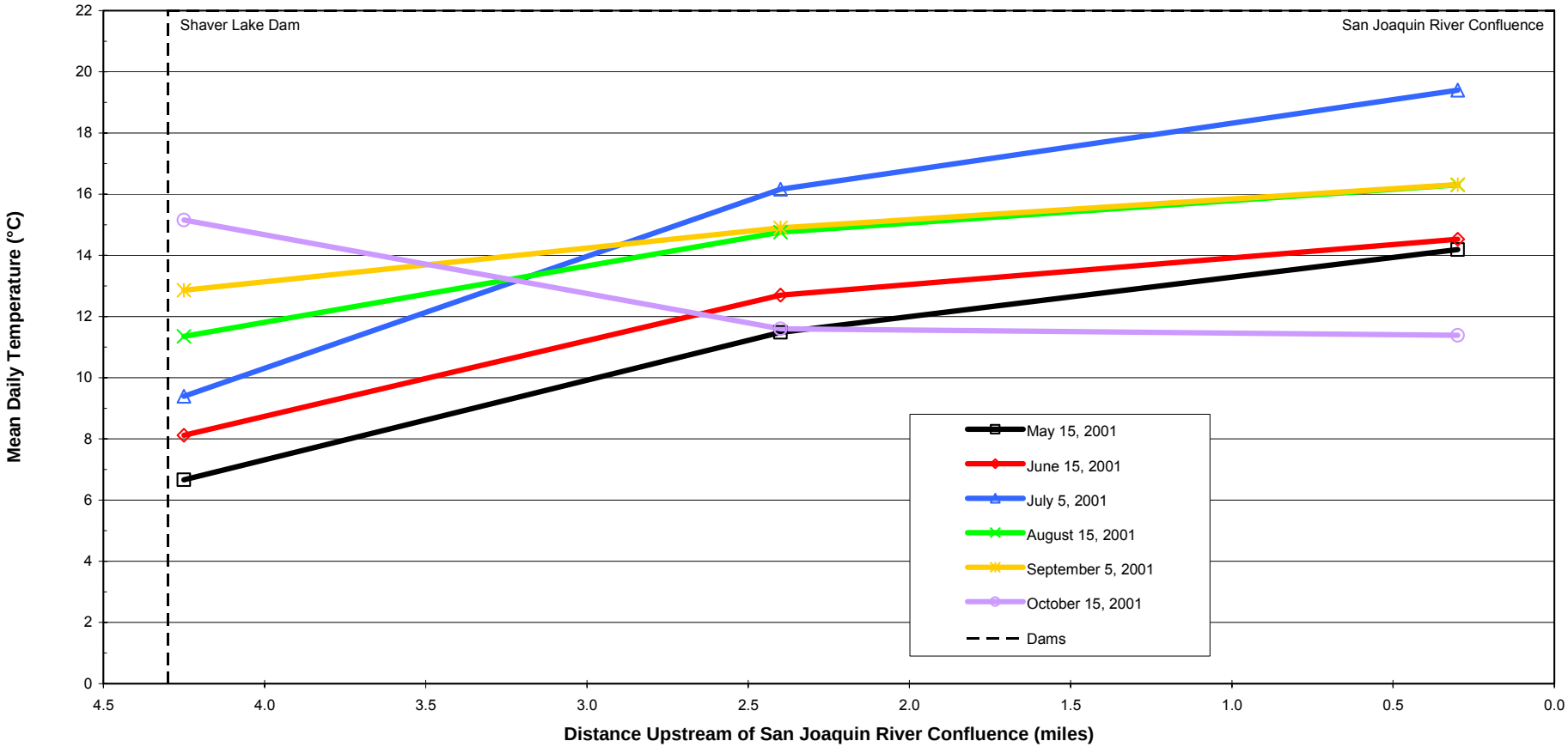

Figure CAWG 5-58. Stevenson Creek Longitudinal Mid-Month Mean Daily Temperature Profile by Site, 2001.

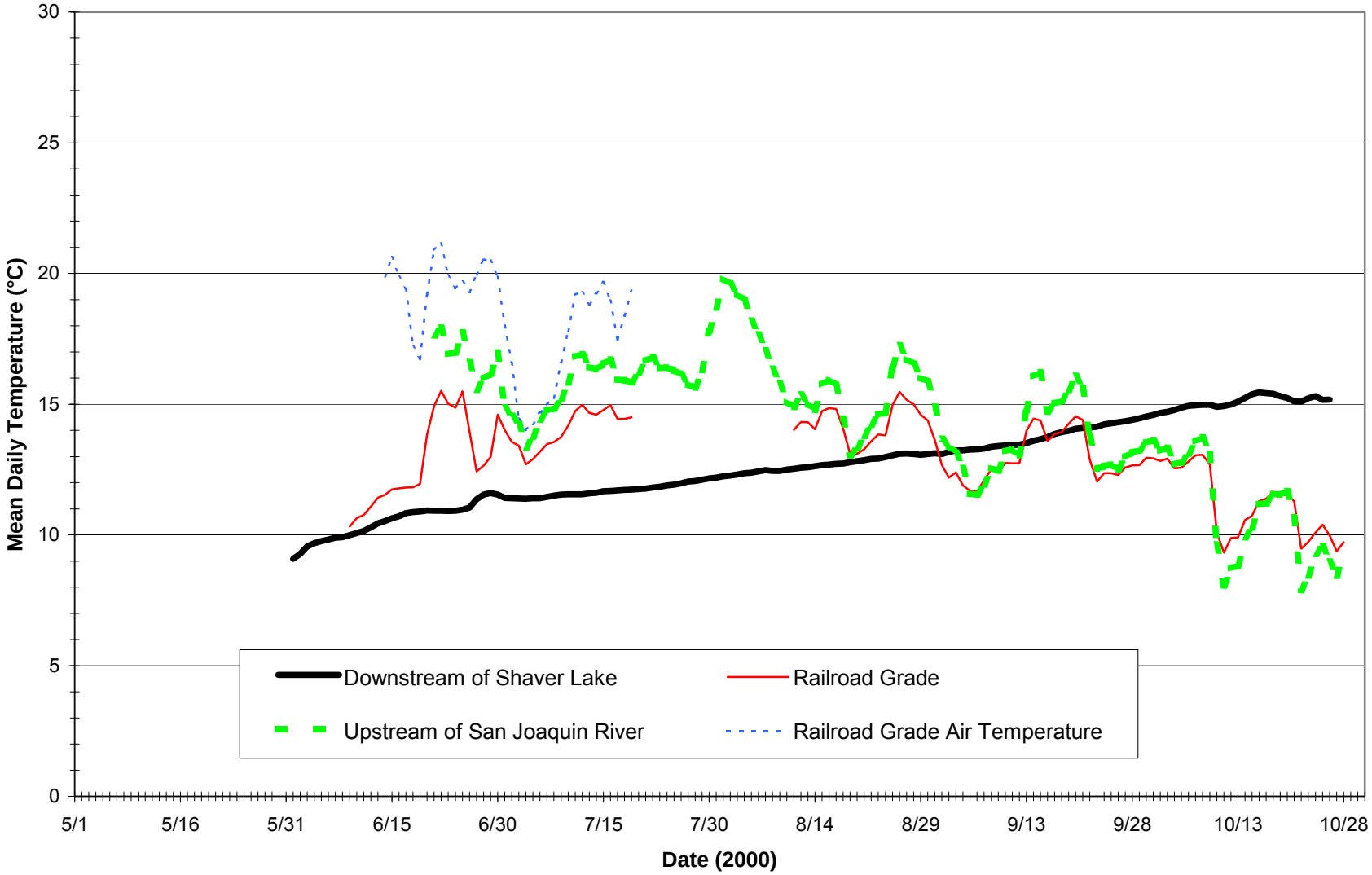

Figure CAWG 5-59. Stevenson Creek Downstream of Shaver Lake to San Joaquin River Confluence Mean Daily Water Temperatures and Railroad Grade Mean Daily Air Temperatures, 2000.

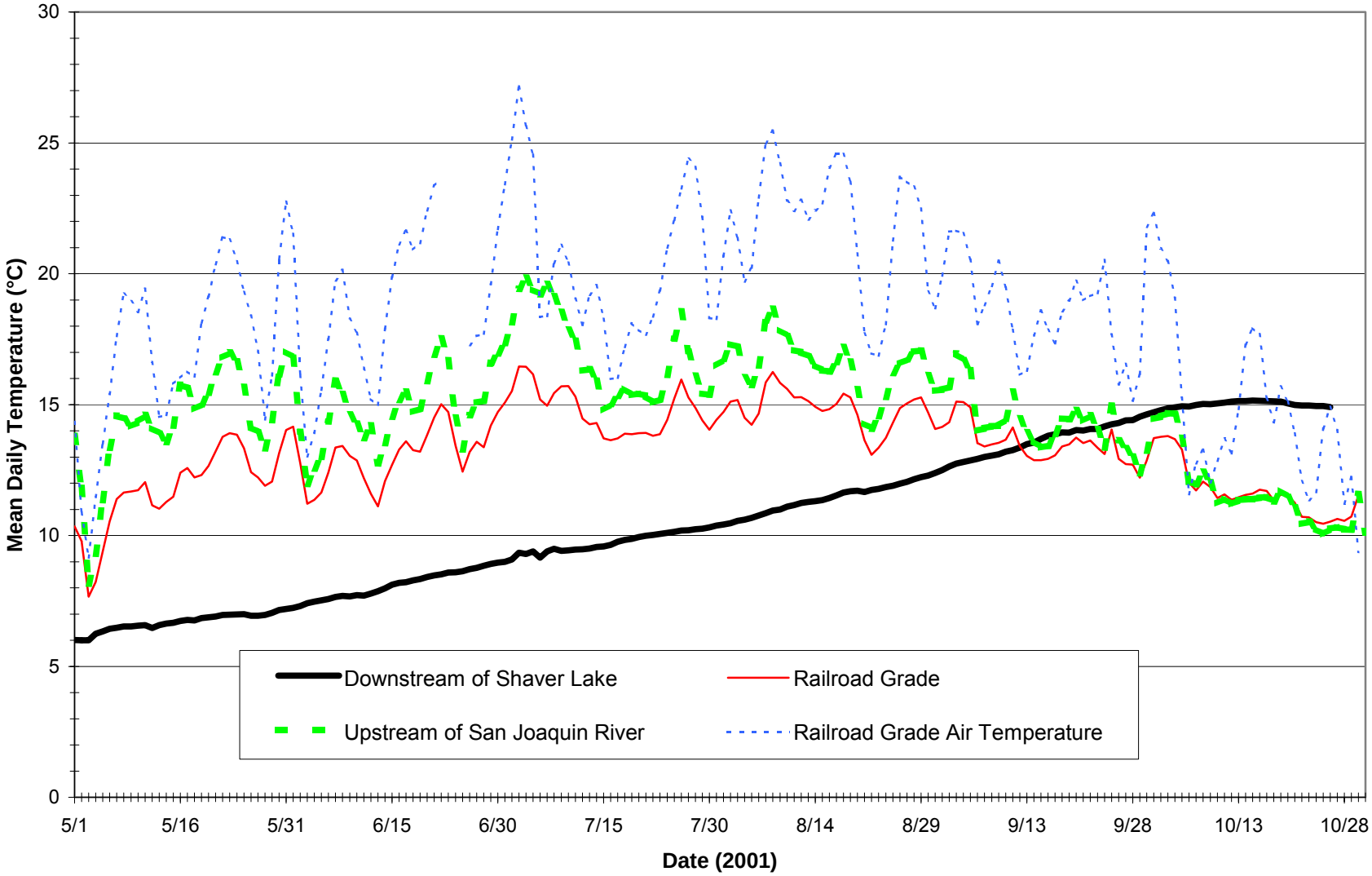

Figure CAWG 5-59. Stevenson Creek Downstream of Shaver Lake to San Joaquin River Confluence Mean Daily Water Temperatures and Railroad Grade Mean Daily Air Temperatures, 2001 (cont).

MAPS

Placeholder for Maps

Non-Internet Public Information

These Maps have been removed in accordance with the Commission regulations at 18 CFR Section 388.112.

These Maps are considered Non-Internet Public information and should not be posted on the Internet. This information is provided in Volume 4 of the Application for New License and is identified as "Non-Internet Public" information. This information may be accessed from the FERC's Public Reference Room, but is not expected to be posted on the Commission's electronic library, except as an indexed item.

APPENDIX A

METEOROLOGICAL MONITORING RESULTS

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00	5.0	9.7	2.2	90	106	58	105			6.6	19.0	
06/09/00	8.5	14.9	2.1	72	103	33	381			4.5	12.0	
06/10/00	11.6	18.0	5.5	50	94	20	374			5.1	13.8	
06/11/00	14.9	21.1	7.1	43	69	20	407			5.2	11.7	
06/12/00	16.8	24.1	10.1	48	75	24	320			4.6	9.8	
06/13/00	20.9	29.2	12.9	36	71	12	383			5.7	14.7	
06/14/00	21.0	30.5	11.9	35	59	9	388			4.7	11.6	
06/15/00	22.6	28.7	15.7	38	68	11	408			5.2	11.8	
06/16/00	20.8	26.6	15.0	49	73	23	377			5.3	13.2	
06/17/00	19.5	24.0	14.2	40	63	19	373			7.7	17.9	
06/18/00	17.5	22.4	13.0	48	70	19	368			7.4	18.0	
06/19/00	17.2	23.6	10.4	48	73	15	381			3.5	10.7	
06/20/00	18.7	24.9	12.7	44	70	23	406			5.0	10.5	
06/21/00	19.4	25.1	13.7	40	61	18	313			5.2	15.4	
06/22/00	18.1	24.0	13.3	46	69	21	288			7.1	22.7	
06/23/00	17.7	22.2	13.6	50	73	29	240			5.0	10.9	
06/24/00	16.9	24.1	11.6	47	78	18	311			4.8	17.5	
06/25/00	16.0	23.6	11.2	53	69	18	200			4.2	21.0	
06/26/00	16.4	22.7	11.1	51	76	24	266			4.7	17.5	
06/27/00	17.9	24.4	12.4	50	82	20	250			4.3	18.0	
06/28/00	18.5	24.8	12.9	52	79	22	308			4.0	12.3	
06/29/00	18.1	25.7	12.4	53	72	21	252			3.5	10.4	
06/30/00	17.2	22.4	11.9	56	81	39	259			4.8	10.9	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	16.4	22.4	11.1	37	62	17	375			4.9	11.6	
07/02/00	15.0	20.9	8.1	39	63	13	377			6.9	17.1	
07/03/00	13.1	16.9	8.3	50	70	35	302			6.2	13.9	
07/04/00	12.3	18.4	5.9	43	64	20	342			5.1	11.0	
07/05/00	12.0	17.4	6.1	56	73	34	331			4.8	16.8	
07/06/00	13.0	19.5	6.8	58	89	15	376			4.8	16.4	
07/07/00	13.7	19.8	6.1	41	78	11	378			7.3	21.7	
07/08/00	14.2	20.8	7.5	47	71	19	368			5.1	15.9	
07/09/00	16.1	21.4	9.4	44	66	21	350			5.2	11.9	
07/10/00	16.3	22.3	10.8	52	75	27	265			4.4	9.9	
07/11/00	17.6	23.9	11.2	50	78	24	347			4.9	11.2	
07/12/00	18.1	23.7	12.0	38	71	12	372			7.4	22.4	
07/13/00	18.7	23.5	12.7	29	49	11	371			7.4	21.9	
07/14/00	18.8	25.7	12.0	31	51	8	366			4.9	11.6	
07/15/00	18.6	24.5	12.9	39	62	16	329			4.8	11.0	
07/16/00	17.3	22.0	12.7	45	62	26	270			4.6	11.8	
07/17/00	16.8	22.2	10.7	37	63	16	346			5.3	16.8	
07/18/00	18.1	24.0	11.4	24	44	10	370			5.8	14.8	
07/19/00	18.5	25.3	11.4	24	49	8	366			4.6	13.0	
07/20/00	20.2	28.3	12.8	27	51	9	363			5.1	13.8	
07/21/00	20.3	26.4	13.8	27	45	7	368			7.6	20.1	
07/22/00	19.8	27.1	11.2	24	43	6	363			4.8	12.2	
07/23/00	20.8	27.1	13.3	21	36	10	352			4.9	13.1	
07/24/00	21.3	27.8	14.9	23	41	10	339			4.8	12.4	
07/25/00	20.6	27.2	14.5	31	51	11	340			5.1	13.4	
07/26/00	19.5	25.7	13.6	32	56	11	347			4.7	13.3	
07/27/00	19.2	25.3	12.3	25	45	10	357			4.8	13.5	
07/28/00	19.7	26.0	12.6	25	39	11	350			5.9	16.9	
07/29/00	21.0	26.9	14.6	29	42	16	331			5.8	15.5	
07/30/00	22.9	29.2	17.1	33	48	16	296			5.2	15.2	
07/31/00	22.6	30.5	17.6	39	69	16	223			4.4	19.5	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	21.7	27.9	17.6	48	84	25	205			4.6	17.0	
08/02/00	20.0	25.3	16.5	49	66	29	192			5.2	26.5	
08/03/00	18.0	23.5	14.6	61	95	34	159			4.7	18.4	
08/04/00	19.4	25.3	12.0	48	87	19	366			5.3	14.7	
08/05/00	19.5	25.7	13.4	45	64	23	283			4.6	10.8	
08/06/00	19.5	25.8	13.7	50	75	29	309			4.9	10.6	
08/07/00	18.0	23.6	12.9	50	71	31	277			4.8	11.0	
08/14/00	19.8	26.2	12.8	28	43	11	325			5.9	15.7	
08/15/00	21.0	27.0	14.8	28	45	18	312			4.4	13.4	
08/16/00	20.9	27.2	15.4	31	48	18	290			4.6	12.2	
08/17/00	19.8	25.7	14.5	32	49	16	292			5.6	17.8	
08/18/00	17.6	23.0	12.9	23	40	11	324			6.0	15.8	
08/19/00	16.3	21.9	10.5	25	42	10	323			5.5	15.5	
08/20/00	16.6	23.9	8.9	25	44	9	320			4.8	12.8	
08/21/00	17.2	24.3	10.1	28	41	9	316			4.7	10.7	
08/22/00	17.7	24.3	11.7	27	40	12	314			4.8	12.1	
08/23/00	17.6	23.7	12.1	36	50	13	307			4.8	16.1	
08/24/00	18.1	24.4	10.2	39	62	25	288			6.3	19.6	
08/25/00	18.1	23.9	13.7	59	99	30	155			4.2	13.8	
08/26/00	17.4	22.6	12.5	64	92	36	209			4.6	16.8	
08/27/00	18.3	24.7	12.8	53	77	21	266			3.9	11.6	
08/28/00	17.2	23.9	13.6	56	73	28	187			5.0	26.5	
08/29/00	15.0	17.9	12.0	67	93	47	97			3.9	8.8	
08/30/00	13.4	17.9	10.0	81	103	57	174			4.6	11.9	
08/31/00	12.8	18.4	8.8	63	86	20	221			4.6	12.1	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	7.4	9.4	5.1	88	103	66	105			4.5	15.6	
09/02/00	9.7	13.6	5.6	70	93	44	187			4.6	10.1	
09/03/00	10.1	18.3	4.5	74	99	23	284			4.2	15.5	
09/04/00	10.5	17.3	3.8	61	97	24	285			7.2	23.0	
09/05/00	9.9	17.0	3.0	46	73	19	275			4.1	11.8	
09/06/00	13.1	21.1	5.6	29	60	9	287			4.7	17.3	
09/07/00	14.9	21.6	6.8	27	40	10	285			6.5	20.5	
09/08/00	15.7	22.0	10.2	31	46	15	273			4.7	15.1	
09/09/00	15.5	22.8	8.1	27	51	10	274			4.6	10.3	
09/10/00	16.0	23.5	9.0	34	50	16	271			4.3	10.2	
09/11/00	16.7	25.4	9.6	28	51	11	272			4.2	13.0	
09/12/00	17.4	24.7	10.6	27	44	12	219			3.6	11.4	
09/13/00	20.3	27.2	14.3	26	41	10	233			3.4	11.1	
09/14/00	18.2	24.4	12.3	38	53	19	261			6.0	16.7	
09/15/00	16.9	24.2	9.6	30	55	8	268			5.9	19.7	
09/16/00	18.1	24.2	10.6	27	48	13	260			10.4	27.6	
09/17/00	19.7	26.8	14.0	29	52	11	257			4.2	12.5	
09/18/00	19.5	27.4	12.5	29	47	11	254			3.8	11.4	
09/19/00	19.9	28.5	13.3	29	45	11	249			4.5	11.6	
09/20/00	20.3	27.2	13.8	31	49	17	246			4.5	12.9	
09/21/00	17.6	23.0	12.0	41	65	17	244			4.4	13.2	
09/22/00	9.7	13.7	6.5	73	84	52	238			5.8	14.7	
09/23/00	9.7	16.4	3.1	62	87	35	245			4.3	13.7	
09/24/00	13.5	21.5	6.4	34	54	16	243			4.2	13.0	
09/25/00	14.1	21.2	7.3	38	56	17	240			4.7	11.7	
09/26/00	13.8	20.6	8.0	38	56	19	236			4.0	10.5	
09/27/00	13.8	21.0	8.6	43	58	20	227			3.8	10.1	
09/28/00	13.6	20.6	8.3	48	69	15	224			3.6	11.4	
09/29/00	15.3	23.2	7.1	37	70	9	230			3.7	11.4	
09/30/00	16.8	25.0	8.9	30	50	15	225			3.4	9.9	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	17.1	24.9	11.4	26	44	10	226			3.8	12.0	
10/02/00	15.7	23.2	10.2	30	47	15	221			3.7	11.6	
10/03/00	14.5	21.8	8.1	34	53	14	221			4.0	10.6	
10/04/00	14.4	21.4	8.7	33	45	18	209			3.1	10.4	
10/05/00	15.0	22.3	9.5	34	53	16	203			3.4	9.2	
10/06/00	15.1	22.6	9.3	34	48	18	211			3.1	8.9	
10/07/00	14.8	21.6	9.3	34	53	17	212			3.4	8.7	
10/08/00	14.6	22.3	9.2	31	48	14	206			4.0	13.3	
10/09/00	H	H	H	H	H	H	H			H	H	
10/10/00	H	H	H	H	H	H	H			H	H	
10/11/00	H	H	H	H	H	H	H			H	H	
10/12/00	H	H	H	H	H	H	H			H	H	
10/13/00	H	H	H	H	H	H	H			H	H	
10/14/00	H	H	H	H	H	H	H			H	H	
10/15/00	H	H	H	H	H	H	H			H	H	
10/16/00	H	H	H	H	H	H	H			H	H	
10/17/00	H	H	H	H	H	H	H			H	H	
10/18/00	H	H	H	H	H	H	H			H	H	
10/19/00	H	H	H	H	H	H	H			H	H	
10/20/00	H	H	H	H	H	H	H			H	H	
10/21/00	H	H	H	H	H	H	H			H	H	
10/22/00	H	H	H	H	H	H	H			H	H	
10/23/00	H	H	H	H	H	H	H			H	H	
10/24/00	H	H	H	H	H	H	H			H	H	
10/25/00	H	H	H	H	H	H	H			H	H	
10/26/00	H	H	H	H	H	H	H			H	H	
10/27/00	H	H	H	H	H	H	H			H	H	
10/28/00	H	H	H	H	H	H	H			H	H	
10/29/00	H	H	H	H	H	H	H			H	H	
10/30/00	H	H	H	H	H	H	H			H	H	
10/31/00	H	H	H	H	H	H	H			H	H	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00							H	H	H	H	H	H
06/09/00							H	H	H	H	H	H
06/10/00							H	H	H	H	H	H
06/11/00							H	H	H	H	H	H
06/12/00							H	H	H	H	H	H
06/13/00							H	H	H	H	H	H
06/14/00							H	H	H	H	H	H
06/15/00							H	H	H	H	H	H
06/16/00							H	H	H	H	H	H
06/17/00							H	H	H	H	H	H
06/18/00							H	H	H	H	H	H
06/19/00							H	H	H	H	H	H
06/20/00							H	H	H	H	H	H
06/21/00							H	H	H	H	H	H
06/22/00							H	H	H	H	H	H
06/23/00							17.6	23.1	12.0	55	81	31
06/24/00							16.4	22.0	11.0	60	77	37
06/25/00							16.1	22.1	9.8	57	79	28
06/26/00							16.5	21.7	10.5	62	83	36
06/27/00	17.9	27.1	6.6	55	95	19	16.1	22.6	10.7	63	83	39
06/28/00	17.7	26.7	9.0	59	88	24	16.9	24.0	11.1	66	89	42
06/29/00	18.3	27.1	7.4	57	93	24	18.2	23.8	12.5	62	85	36
06/30/00	17.5	24.4	9.4	56	91	31	17.6	23.0	12.1	65	82	44

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
07/01/00	15.4	23.6	5.0	42	81	15	16.6	22.3	11.5	63	89	37
07/02/00	14.2	22.5	3.3	48	81	22	14.5	20.0	9.0	50	70	29
07/03/00	12.3	19.0	4.6	56	88	28	12.8	18.1	7.5	61	87	40
07/04/00	12.0	19.8	1.2	50	80	17	10.9	15.0	6.9	75	95	52
07/05/00	11.8	19.0	2.9	60	94	34	10.2	15.4	4.5	64	91	35
07/06/00	12.7	21.0	3.3	62	93	37	10.3	15.0	5.5	74	94	58
07/07/00	12.9	22.1	2.0	56	87	25	11.0	16.3	6.4	80	100	61
07/08/00	13.5	22.1	2.9	54	86	28	11.2	16.7	5.2	71	91	49
07/09/00	15.3	23.6	4.6	53	91	21	11.8	16.9	6.9	71	92	56
07/10/00	16.4	24.4	6.2	53	88	28	13.4	19.3	7.2	62	79	43
07/11/00	17.7	26.0	7.4	50	90	20	14.3	19.4	9.0	66	85	47
07/12/00	18.2	27.9	7.0	44	86	11	15.9	21.7	10.0	63	86	41
07/13/00	17.5	27.1	5.4	40	71	14	16.6	22.8	11.0	56	81	27
07/14/00	17.6	26.7	5.4	39	73	13	16.3	22.4	10.2	52	73	25
07/15/00	18.1	26.0	7.8	43	79	14	16.3	22.5	9.9	51	77	26
07/16/00	17.3	24.4	9.0	46	77	19	16.2	22.0	10.3	53	73	27
07/17/00	16.3	24.8	5.4	47	82	19	15.1	20.3	11.1	63	80	48
07/18/00	16.7	27.1	3.7	38	68	10	14.4	20.9	8.6	64	84	42
07/19/00	17.1	27.1	3.7	35	67	8	15.3	22.1	8.5	53	76	32
07/20/00	18.8	29.9	5.8	34	69	8	16.3	23.6	9.1	47	73	23
07/21/00	19.2	30.3	5.8	36	69	9	17.0	24.6	9.8	45	72	18
07/22/00	18.8	29.5	5.4	36	67	13	17.6	25.1	11.4	47	73	28
07/23/00	19.4	30.3	6.2	30	64	8	17.0	24.4	10.3	49	73	33
07/24/00	19.3	29.5	7.0	30	61	8	18.2	25.6	11.0	41	63	16
07/25/00	19.2	28.3	8.2	35	68	12	18.5	25.1	12.2	41	57	23
07/26/00	18.3	27.5	7.4	39	75	12	17.8	24.7	11.7	45	65	25
07/27/00	17.8	27.9	5.4	32	69	8	16.6	22.7	11.3	49	68	32
07/28/00	18.3	29.5	5.0	31	59	9	16.6	23.6	9.5	46	64	24
07/29/00	19.3	30.3	7.0	38	67	12	17.7	26.0	10.7	39	63	15
07/30/00	21.8	31.1	11.0	38	64	15	18.5	25.8	11.6	44	70	22
07/31/00	21.8	32.3	10.6	42	72	13	20.4	27.1	14.4	47	67	29

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
08/01/00	20.2	30.3	13.7	61	90	23	21.1	28.2	15.1	50	70	28
08/02/00	18.6	29.1	9.4	58	92	19	22.2	29.8	17.4	50	73	23
08/03/00	16.8	25.6	9.8	67	98	32	20.6	28.3	15.1	52	75	23
08/04/00	18.4	28.3	8.2	59	97	23	19.5	24.7	15.1	58	79	42
08/05/00	18.8	27.5	8.2	52	90	25	18.7	25.0	13.4	63	86	42
08/06/00	18.7	27.5	9.0	52	88	26	18.4	24.3	12.4	56	76	39
08/07/00	17.3	25.2	8.2	52	84	27	17.8	24.2	12.5	59	83	33
08/14/00	17.9	29.9	5.4	34	61	8	16.9	24.8	10.2	39	66	19
08/15/00	18.7	28.7	7.8	34	58	14	17.4	25.4	9.8	41	61	20
08/16/00	18.8	29.1	7.8	35	62	13	18.7	25.8	12.6	41	63	23
08/17/00	18.1	27.5	8.2	35	63	8	18.8	25.9	13.0	44	65	23
08/18/00	15.6	25.6	4.2	29	52	9	18.1	25.4	12.3	42	67	22
08/19/00	14.1	24.8	2.5	31	52	10	16.1	23.4	10.0	37	57	20
08/20/00	14.7	26.0	2.5	34	62	8	14.3	21.5	7.9	39	61	20
08/21/00	15.0	25.6	3.3	35	61	11	14.0	20.9	7.6	42	66	23
08/22/00	15.4	26.0	3.3	34	56	11	14.7	21.5	8.6	44	65	22
08/23/00	15.7	25.2	5.8	41	68	19	15.8	23.3	9.5	40	60	20
08/24/00	16.7	27.1	4.6	41	69	16	16.1	22.0	11.0	47	70	26
08/25/00	18.3	26.0	11.8	52	75	27	17.1	24.9	10.1	45	71	21
08/26/00	17.6	25.6	10.2	54	80	30	18.4	24.3	13.9	55	76	29
08/27/00	17.2	26.3	8.2	54	84	26	18.1	23.6	13.7	56	81	36
08/28/00	17.1	26.3	8.2	51	84	21	17.6	24.6	12.0	59	83	33
08/29/00	16.0	20.2	12.6	61	87	35	17.4	24.2	12.2	54	79	29
08/30/00	14.6	20.6	9.0	72	89	48	14.4	16.9	12.0	69	89	50
08/31/00	12.5	19.8	5.8	66	95	29	12.5	16.8	10.3	87	98	68

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
09/01/00	7.7	10.2	4.2	83	94	69	10.9	14.7	7.6	89	104	70
09/02/00	9.8	16.0	5.4	75	93	47	6.4	8.3	4.3	104	109	90
09/03/00	10.1	16.8	3.3	72	90	50	7.6	11.0	5.3	100	109	79
09/04/00	8.4	16.4	-0.2	70	93	44	8.2	12.5	4.2	96	109	82
09/05/00	8.2	17.5	-1.5	58	90	19	7.9	12.5	4.3	88	100	63
09/06/00	10.4	22.5	-1.5	43	79	9	8.3	14.0	2.8	73	94	45
09/07/00	12.4	25.2	-0.2	33	65	6	11.5	19.8	4.4	48	82	17
09/08/00	12.7	23.2	2.5	35	62	11	14.5	23.0	7.0	38	64	12
09/09/00	12.5	24.8	0.7	37	64	10	14.3	21.9	8.4	42	64	15
09/10/00	13.1	25.2	2.5	42	71	13	13.6	21.4	6.9	43	70	20
09/11/00	14.0	27.1	2.0	39	71	8	14.1	21.8	7.9	49	72	21
09/12/00	14.2	25.6	2.9	34	62	11	14.5	22.6	7.0	41	71	15
09/13/00	18.0	30.3	7.0	33	59	10	16.2	24.4	9.2	38	60	15
09/14/00	16.1	26.7	7.0	45	71	18	19.1	27.2	13.4	40	64	19
09/15/00	14.6	26.7	3.7	47	77	12	16.8	23.6	12.0	58	80	30
09/16/00	15.0	27.9	2.9	30	58	6	14.9	22.1	9.8	60	82	34
09/17/00	15.8	27.5	5.4	37	62	14	17.3	26.6	9.8	36	65	11
09/18/00	16.1	29.5	4.6	40	69	10	18.0	26.5	11.8	42	68	18
09/19/00	16.6	29.1	5.0	40	65	10	17.8	26.3	10.8	44	68	19
09/20/00	16.9	29.5	6.2	42	70	14	18.0	25.9	11.9	44	71	21
09/21/00	14.2	23.2	6.6	55	78	26	18.9	27.5	13.0	45	69	18
09/22/00	9.1	14.1	5.0	72	88	51	14.6	20.6	10.2	66	91	43
09/23/00	8.4	17.5	-0.6	68	93	35	7.5	10.7	5.0	96	107	77
09/24/00	10.0	22.9	-1.1	46	82	13	7.4	12.4	2.8	89	104	63
09/25/00	11.0	22.9	1.2	48	79	17	11.7	18.6	6.3	61	88	34
09/26/00	H	H	H	H	H	H	12.5	20.3	6.5	58	82	31
09/27/00	H	H	H	H	H	H	12.8	20.1	6.4	48	71	25
09/28/00	H	H	H	H	H	H	13.3	20.5	8.1	55	75	26
09/29/00	H	H	H	H	H	H	11.9	18.1	8.1	68	89	41
09/30/00	H	H	H	H	H	H	14.3	23.6	8.2	57	86	16

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/00	H	H	H	H	H	H	16.0	24.5	10.1	44	70	18
10/02/00	H	H	H	H	H	H	16.0	24.8	10.1	37	61	13
10/03/00	H	H	H	H	H	H	14.3	21.7	9.0	48	73	24
10/04/00	H	H	H	H	H	H	13.1	20.3	7.5	53	74	27
10/05/00	H	H	H	H	H	H	13.1	20.0	7.7	48	68	24
10/06/00	H	H	H	H	H	H	14.5	22.5	9.0	47	67	22
10/07/00	H	H	H	H	H	H	14.5	22.4	9.0	46	66	21
10/08/00	H	H	H	H	H	H	13.6	20.0	9.5	54	83	29
10/09/00	H	H	H	H	H	H	13.5	20.5	9.0	51	72	26
10/10/00	H	H	H	H	H	H						
10/11/00	H	H	H	H	H	H						
10/12/00	H	H	H	H	H	H						
10/13/00	H	H	H	H	H	H						
10/14/00	H	H	H	H	H	H						
10/15/00	H	H	H	H	H	H						
10/16/00	H	H	H	H	H	H						
10/17/00	H	H	H	H	H	H						
10/18/00	H	H	H	H	H	H						
10/19/00	H	H	H	H	H	H						
10/20/00	H	H	H	H	H	H						
10/21/00	H	H	H	H	H	H						
10/22/00	H	H	H	H	H	H						
10/23/00	H	H	H	H	H	H						
10/24/00	H	H	H	H	H	H						
10/25/00	H	H	H	H	H	H						
10/26/00	H	H	H	H	H	H						
10/27/00	H	H	H	H	H	H						
10/28/00	H	H	H	H	H	H						
10/29/00	H	H	H	H	H	H						
10/30/00	H	H	H	H	H	H						
10/31/00	H	H	H	H	H	H						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
05/01/00									
05/02/00									
05/03/00									
05/04/00									
05/05/00									
05/06/00									
05/07/00									
05/08/00									
05/09/00									
05/10/00									
05/11/00									
05/12/00									
05/13/00									
05/14/00									
05/15/00									
05/16/00									
05/17/00									
05/18/00									
05/19/00									
05/20/00									
05/21/00									
05/22/00									
05/23/00									
05/24/00									
05/25/00									
05/26/00									
05/27/00									
05/28/00									
05/29/00									
05/30/00									
05/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
06/01/00									
06/02/00									
06/03/00									
06/04/00									
06/05/00									
06/06/00									
06/07/00									
06/08/00	H			H	H				
06/09/00	H			H	H				
06/10/00	H			H	H				
06/11/00	H			H	H				
06/12/00	H			H	H				
06/13/00	H			H	H				
06/14/00	H			H	H		25.0	35.3	17.5
06/15/00	H			H	H		24.3	34.0	16.0
06/16/00	H			H	H		23.8	31.9	17.1
06/17/00	H			H	H		23.5	32.8	16.4
06/18/00	H			H	H		21.2	27.5	16.0
06/19/00	H			H	H		20.3	27.1	13.3
06/20/00	H			H	H		22.0	31.1	14.5
06/21/00	H			H	H		23.3	32.8	15.2
06/22/00	H			H	H		23.5	31.9	16.0
06/23/00	371			0.0	0.5		22.3	30.7	15.2
06/24/00	350			0.0	1.1		21.9	29.5	14.5
06/25/00	360			0.0	0.6		22.2	30.3	15.6
06/26/00	360			0.0	0.4		21.6	31.1	14.9
06/27/00	301			0.0	1.5		22.9	32.3	14.9
06/28/00	329			0.0	1.6		23.9	33.2	16.8
06/29/00	345			0.0	0.7		23.5	31.5	16.4
06/30/00	339			0.0	0.2		23.0	30.7	16.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
07/01/00	349			0.0	0.2		20.8	28.7	13.7
07/02/00	359			0.3	2.8		19.3	26.7	12.2
07/03/00	354			0.0	0.4		17.7	23.6	12.6
07/04/00	353			0.2	2.3		17.0	24.0	9.4
07/05/00	351			0.8	3.0		17.3	24.0	10.6
07/06/00	343			0.0	0.2		17.9	24.8	11.4
07/07/00	348			0.0	1.2		18.0	25.2	11.4
07/08/00	344			0.0	0.2		18.4	25.6	11.8
07/09/00	340			0.0	0.2		19.8	27.9	11.8
07/10/00	341			0.0	0.7		21.0	28.7	14.1
07/11/00	337			0.0	0.3		22.1	29.9	14.5
07/12/00	329			0.0	0.5		22.4	30.7	15.2
07/13/00	342			0.0	0.1		21.7	29.9	14.1
07/14/00	368			0.0	0.9		22.3	30.7	14.1
07/15/00	343			0.0	0.4		22.8	30.7	15.6
07/16/00	332			0.0	0.2		22.0	27.9	17.1
07/17/00	317			0.0	0.5		20.5	27.5	13.7
07/18/00	333			0.0	0.9		21.5	30.7	13.7
07/19/00	338			0.0	0.6		22.3	31.9	13.3
07/20/00	339			0.0	0.7		H	H	H
07/21/00	339			0.0	1.7		H	H	H
07/22/00	333			0.0	0.5		H	H	H
07/23/00	331			0.0	0.6		H	H	H
07/24/00	322			0.0	1.1		H	H	H
07/25/00	315			0.0	1.2		H	H	H
07/26/00	315			0.0	0.4		H	H	H
07/27/00	320			0.0	1.2		H	H	H
07/28/00	326			0.0	1.6		H	H	H
07/29/00	312			0.0	2.0		H	H	H
07/30/00	292			0.0	2.1		H	H	H
07/31/00	290			0.0	0.6		H	H	H

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
08/01/00	287			0.0	1.6		H	H	H
08/02/00	250			0.0	0.6		H	H	H
08/03/00	195			0.0	0.2		H	H	H
08/04/00	263			0.0	0.6		H	H	H
08/05/00	306			0.0	2.2		H	H	H
08/06/00	330			0.0	1.9		H	H	H
08/07/00	306			0.0	1.2		H	H	H
08/14/00	312			0.0	1.0		23.0	32.8	14.5
08/15/00	304			0.7	3.0		24.4	34.0	16.4
08/16/00	297			0.0	0.6		24.5	33.6	16.8
08/17/00	294			0.0	0.6		24.4	33.6	16.8
08/18/00	300			0.0	0.7		22.4	30.7	14.9
08/19/00	305			0.6	3.0		20.4	28.7	12.9
08/20/00	306			0.8	3.0		19.8	27.9	12.2
08/21/00	306			0.0	0.3		20.3	28.7	12.2
08/22/00	304			0.0	1.1		21.5	30.7	13.3
08/23/00	298			0.0	1.0		21.8	30.3	14.9
08/24/00	290			0.1	2.3		22.7	32.3	14.5
08/25/00	290			0.9	3.4		24.4	31.1	18.7
08/26/00	263			0.0	0.6		24.4	31.5	18.3
08/27/00	272			0.0	0.2		23.9	31.5	17.1
08/28/00	281			0.0	0.8		23.8	31.5	17.5
08/29/00	246			0.0	1.3		21.5	24.0	19.0
08/30/00	109			0.0	0.3		20.0	23.6	16.0
08/31/00	157			0.0	0.6		17.3	22.5	13.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
09/01/00	230			0.0	1.4		13.3	16.0	11.4
09/02/00	61			0.0	1.7		15.0	18.3	12.6
09/03/00	175			0.0	1.5		15.3	20.6	10.2
09/04/00	235			0.3	1.9		14.3	21.0	9.0
09/05/00	230			0.8	2.5		14.4	22.1	7.8
09/06/00	298			0.8	2.9		16.1	26.3	7.8
09/07/00	301			0.0	0.5		19.4	30.7	11.0
09/08/00	299			0.0	2.5		20.0	29.9	12.2
09/09/00	290			0.0	1.4		19.5	28.7	11.8
09/10/00	291			0.0	1.4		19.8	29.5	12.2
09/11/00	291			0.7	3.0		19.9	29.5	11.8
09/12/00	292			0.0	2.3		20.9	31.1	13.3
09/13/00	212			0.0	1.6		24.3	34.4	17.5
09/14/00	258			0.0	0.3		22.7	30.7	16.8
09/15/00	277			0.0	1.8		20.2	27.1	14.1
09/16/00	280			0.0	1.3		20.4	29.5	12.6
09/17/00	278			0.6	4.0		22.6	33.6	15.2
09/18/00	271			0.0	1.2		23.4	33.6	15.2
09/19/00	270			0.0	2.1		23.3	33.6	15.6
09/20/00	266			0.0	2.6		23.8	34.0	16.4
09/21/00	260			0.0	1.7		20.2	25.6	16.0
09/22/00	255			0.3	2.4		13.9	16.0	12.6
09/23/00	90			1.1	3.0		14.3	19.8	7.8
09/24/00	186			0.6	3.2		16.6	25.6	9.4
09/25/00	260			0.9	3.0		17.9	27.5	10.6
09/26/00	258			0.2	2.5		18.6	28.7	11.0
09/27/00	254			0.7	3.1		19.0	27.5	12.6
09/28/00	244			0.9	2.9		16.9	22.9	12.2
09/29/00	238			0.0	1.5		16.5	24.0	10.6
09/30/00	248			0.0	2.2		20.2	30.3	13.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/00	247			0.0	2.7		20.8	31.5	13.3
10/02/00	249			1.0	3.4		19.5	27.9	12.9
10/03/00	241			0.4	3.0		18.5	26.3	12.2
10/04/00	243			0.7	3.1		17.7	26.0	11.8
10/05/00	238			1.1	3.5		18.5	28.3	12.9
10/06/00	236			0.8	2.8		19.3	28.3	12.6
10/07/00	234			0.7	2.9		18.1	24.4	13.3
10/08/00	225			0.1	1.9		17.1	24.4	11.4
10/09/00	230			1.3	3.7		15.1	22.1	9.4
10/10/00							7.4	9.4	5.4
10/11/00							6.8	9.8	3.7
10/12/00							8.5	11.4	5.8
10/13/00							9.4	14.9	4.6
10/14/00							11.1	18.7	5.8
10/15/00							12.0	20.2	7.0
10/16/00							13.5	22.5	7.8
10/17/00							13.9	24.0	8.2
10/18/00							14.7	24.0	9.0
10/19/00							14.0	22.5	9.0
10/20/00							14.4	22.9	9.0
10/21/00							10.1	14.1	6.2
10/22/00							9.8	17.5	5.0
10/23/00							11.1	18.7	5.4
10/24/00							11.3	18.7	6.6
10/25/00							10.9	16.0	7.0
10/26/00							7.4	9.8	5.8
10/27/00									
10/28/00									
10/29/00									
10/30/00									
10/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00									
05/02/00									
05/03/00									
05/04/00									
05/05/00									
05/06/00									
05/07/00									
05/08/00									
05/09/00									
05/10/00									
05/11/00									
05/12/00									
05/13/00									
05/14/00									
05/15/00									
05/16/00									
05/17/00									
05/18/00									
05/19/00									
05/20/00									
05/21/00									
05/22/00									
05/23/00									
05/24/00									
05/25/00									
05/26/00									
05/27/00									
05/28/00									
05/29/00									
05/30/00									
05/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00									
06/02/00									
06/03/00									
06/04/00									
06/05/00									
06/06/00									
06/07/00									
06/08/00									
06/09/00									
06/10/00									
06/11/00									
06/12/00									
06/13/00									
06/14/00	44	69	23						
06/15/00	54	81	26						
06/16/00	56	84	25	H	H	H	H	H	H
06/17/00	54	84	23	H	H	H	H	H	H
06/18/00	59	81	41	H	H	H	H	H	H
06/19/00	58	80	40	H	H	H	H	H	H
06/20/00	58	84	31	H	H	H	H	H	H
06/21/00	50	77	27	H	H	H	H	H	H
06/22/00	48	78	18	H	H	H	H	H	H
06/23/00	47	75	22	H	H	H	H	H	H
06/24/00	49	70	27	H	H	H	H	H	H
06/25/00	52	79	30	H	H	H	H	H	H
06/26/00	53	76	25	H	H	H	H	H	H
06/27/00	52	79	25	H	H	H	H	H	H
06/28/00	51	78	22	H	H	H	H	H	H
06/29/00	52	80	30	H	H	H	H	H	H
06/30/00	48	81	17	H	H	H	H	H	H

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	38	66	14	H	H	H	H	H	H
07/02/00	45	68	27	H	H	H	H	H	H
07/03/00	51	79	27	H	H	H	H	H	H
07/04/00	47	69	26	H	H	H	H	H	H
07/05/00	50	75	31	H	H	H	H	H	H
07/06/00	55	80	34	H	H	H	H	H	H
07/07/00	54	74	36	H	H	H	H	H	H
07/08/00	53	74	36	H	H	H	H	H	H
07/09/00	47	72	25	H	H	H	H	H	H
07/10/00	46	72	28	H	H	H	H	H	H
07/11/00	49	72	26	H	H	H	H	H	H
07/12/00	45	73	22	H	H	H	H	H	H
07/13/00	42	62	24	H	H	H	H	H	H
07/14/00	38	56	20	H	H	H	H	H	H
07/15/00	39	60	22	H	H	H	H	H	H
07/16/00	45	68	25	H	H	H	H	H	H
07/17/00	47	65	30	H	H	H	H	H	H
07/18/00	41	58	24	H	H	H	H	H	H
07/19/00	36	54	18	H	H	H	H	H	H
07/20/00	H	H	H	22.3	33.2	14.1	43	63	20
07/21/00	H	H	H	22.5	33.2	13.3	45	72	19
07/22/00	H	H	H	22.8	33.2	15.2	42	69	19
07/23/00	H	H	H	22.9	34.4	14.1	40	67	15
07/24/00	H	H	H	23.3	34.4	15.2	38	66	14
07/25/00	H	H	H	23.3	32.8	15.6	38	69	16
07/26/00	H	H	H	22.5	31.5	16.0	40	69	17
07/27/00	H	H	H	22.0	33.2	14.1	40	68	15
07/28/00	H	H	H	22.3	33.6	13.7	38	56	13
07/29/00	H	H	H	23.3	34.4	15.2	42	64	15
07/30/00	H	H	H	25.0	34.9	17.5	43	66	19
07/31/00	H	H	H	25.3	36.1	18.7	47	68	21

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	H	H	H	24.8	31.1	21.0	53	67	26
08/02/00	H	H	H	24.6	35.7	18.7	52	69	15
08/03/00	H	H	H	25.1	33.2	18.3	48	80	25
08/04/00	H	H	H	25.1	33.2	18.7	45	66	23
08/05/00	H	H	H	24.1	32.8	17.1	45	68	23
08/06/00	H	H	H	23.7	32.8	17.5	44	72	19
08/07/00	H	H	H	22.8	31.1	16.8	43	71	20
08/14/00	29	49	12	22.8	34.9	14.5	31	59	11
08/15/00	30	52	12	23.8	35.3	15.6	32	63	11
08/16/00	31	55	13	23.9	34.9	16.4	32	57	13
08/17/00	30	55	12	23.7	34.4	16.0	30	62	9
08/18/00	25	45	9	22.1	32.3	14.5	27	49	8
08/19/00	25	40	14	20.2	30.3	12.6	27	47	12
08/20/00	31	49	17	20.1	30.3	12.2	33	51	16
08/21/00	34	51	18	20.1	30.7	12.2	37	62	14
08/22/00	30	47	15	21.1	32.3	12.9	34	57	12
08/23/00	33	54	15	21.3	31.5	14.5	33	54	14
08/24/00	31	46	16	22.1	33.6	13.7	33	51	13
08/25/00	37	62	17	23.9	32.8	17.9	39	67	21
08/26/00	42	78	20	23.6	32.3	17.9	48	86	20
08/27/00	40	64	22	23.5	33.6	16.8	41	65	18
08/28/00	38	59	22	23.3	33.6	16.8	41	69	16
08/29/00	46	59	37	21.5	24.8	19.4	47	60	31
08/30/00	56	71	43	20.6	26.3	16.8	57	79	37
08/31/00	66	80	43	18.4	24.4	14.5	60	79	31

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	88	99	69	14.5	19.0	12.6	79	96	47
09/02/00	76	90	62	16.2	21.3	12.9	67	93	41
09/03/00	69	90	45	15.4	21.3	10.6	65	85	41
09/04/00	66	89	38	14.7	22.5	9.4	62	82	32
09/05/00	58	84	30	14.5	24.0	7.8	52	76	23
09/06/00	43	70	16	15.7	27.5	7.8	42	68	12
09/07/00	32	57	10	18.1	30.7	10.2	33	54	8
09/08/00	31	56	9	18.5	29.9	11.0	32	60	11
09/09/00	32	52	13	18.4	29.9	11.0	35	54	13
09/10/00	37	59	16	18.9	29.9	11.4	39	63	14
09/11/00	34	53	14	19.1	30.7	11.8	38	66	15
09/12/00	29	48	12	19.0	28.7	11.8	34	50	11
09/13/00	30	55	12	21.9	33.6	15.2	34	56	13
09/14/00	43	63	24	21.5	31.5	14.9	43	65	20
09/15/00	53	71	35	20.0	29.5	13.7	54	71	30
09/16/00	37	52	17	19.7	32.3	11.8	43	64	17
09/17/00	34	56	18	21.0	33.6	13.3	37	59	11
09/18/00	34	51	14	21.7	33.6	14.1	37	62	11
09/19/00	37	56	13	21.8	33.6	14.1	38	59	15
09/20/00	38	58	18	22.5	34.4	15.2	40	61	13
09/21/00	50	66	34	20.2	27.1	15.2	48	65	31
09/22/00	79	93	65	15.8	19.8	13.3	65	76	49
09/23/00	67	85	42	14.4	22.1	8.6	63	80	39
09/24/00	54	77	31	15.7	26.7	8.2	56	79	25
09/25/00	43	65	19	16.8	27.9	9.8	48	74	18
09/26/00	36	54	15	17.3	27.9	10.2	43	67	16
09/27/00	40	58	20	17.7	27.5	11.4	42	59	20
09/28/00	53	70	33	16.6	25.2	11.0	53	69	30
09/29/00	60	77	37	16.4	26.3	10.2	59	79	31
09/30/00	37	59	15	18.9	31.1	11.8	43	74	12

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	32	53	11	19.0	31.1	11.8	37	59	8
10/02/00	38	53	17	18.0	28.3	11.4	40	57	18
10/03/00	43	60	22	17.4	27.5	11.0	47	65	18
10/04/00	40	56	21	16.7	27.5	10.2	45	61	20
10/05/00	41	59	19	17.7	29.5	10.6	42	61	12
10/06/00	39	55	17	17.9	28.7	11.0	41	55	15
10/07/00	48	69	24	17.5	26.7	11.8	50	69	28
10/08/00	55	70	33	16.4	26.7	10.2	58	75	29
10/09/00	60	98	35	14.5	21.3	9.8	66	97	37
10/10/00	95	100	78	8.3	10.6	6.6	90	97	69
10/11/00	91	99	70	8.1	10.6	5.8	82	95	58
10/12/00	86	97	70	9.7	14.9	7.0	75	91	46
10/13/00	80	96	50	9.5	16.8	4.2	78	91	51
10/14/00	76	97	48	10.5	20.6	5.0	73	93	28
10/15/00	71	89	34	11.1	21.0	5.8	72	87	34
10/16/00	70	89	29	12.1	23.2	6.2	72	89	33
10/17/00	63	82	20	12.8	24.0	7.0	64	83	24
10/18/00	60	74	27	13.6	24.0	7.4	60	77	24
10/19/00	63	80	33	12.8	23.2	7.0	67	80	36
10/20/00	62	74	28	13.1	22.1	7.4	65	81	24
10/21/00	80	98	57	10.8	15.6	7.8	65	97	29
10/22/00	63	81	19	12.9	17.5	10.2	19	31	9
10/23/00	60	81	26	10.4	19.8	4.6	50	73	25
10/24/00	66	85	33	10.4	19.4	5.0	65	84	33
10/25/00	73	100	44	10.2	16.0	5.8	71	97	43
10/26/00	97	100	84	7.7	9.8	5.8	95	99	77
10/27/00				7.2	14.1	2.9	94	101	59
10/28/00				9.5	15.2	5.4	86	96	59
10/29/00									
10/30/00									
10/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00												
06/15/00												
06/16/00	25.5	33.5	17.3	55	89	26	291			1.6	6.9	
06/17/00	24.6	34.0	15.9	49	76	23	294			1.2	7.4	
06/18/00	22.5	28.9	16.1	56	76	41	280			2.3	7.4	
06/19/00	21.6	28.5	14.0	59	80	36	289			2.4	7.8	
06/20/00	23.5	32.8	13.9	58	89	31	277			1.8	6.6	
06/21/00	24.9	34.0	16.5	51	79	26	288			2.0	6.4	
06/22/00	25.1	33.6	16.5	46	77	23	294			1.8	7.9	
06/23/00	23.9	32.6	16.2	42	64	22	291			1.9	8.0	
06/24/00	23.8	32.2	15.0	46	71	26	290			2.9	11.9	
06/25/00	23.4	32.4	15.9	48	71	25	291			3.1	12.5	
06/26/00	21.5	33.1	14.2	64	100	28	262			2.8	25.1	
06/27/00	23.4	33.5	14.2	59	97	28	289			2.0	6.9	
06/28/00	24.5	34.3	18.0	53	74	26	237			3.5	21.1	
06/29/00	24.7	33.6	16.3	50	71	30	291			2.2	7.0	
06/30/00	24.3	32.4	17.4	48	77	24	292			2.0	6.5	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	21.7	30.4	13.7	38	62	17	311			2.1	8.2	
07/02/00	20.2	28.5	11.8	43	62	29	300			2.4	7.0	
07/03/00	18.6	25.1	11.9	51	77	30	292			2.6	7.0	
07/04/00	18.0	25.8	9.8	47	66	28	296			2.4	7.1	
07/05/00	18.4	26.0	10.4	51	78	32	274			2.4	6.6	
07/06/00	18.7	26.7	10.7	55	80	33	278			1.9	7.2	
07/07/00	19.1	27.1	11.0	55	82	35	277			1.8	5.9	
07/08/00	19.4	27.5	11.2	52	68	36	274			2.0	6.3	
07/09/00	20.8	29.8	11.0	49	79	27	275			1.5	6.2	
07/10/00	21.4	30.2	13.4	47	68	29	271			1.7	6.5	
07/11/00	23.5	32.8	14.6	48	76	24	265			1.5	5.3	
07/12/00	23.6	33.0	14.5	42	68	22	273			1.6	5.4	
07/13/00	22.7	32.4	13.5	42	63	25	278			1.7	6.2	
07/14/00	23.4	32.9	14.2	40	58	21	280			1.7	6.1	
07/15/00	23.9	32.8	15.0	42	64	23	266			1.6	5.6	
07/16/00	23.2	31.6	16.6	43	64	27	244			1.7	6.0	
07/17/00	21.7	29.7	13.3	46	70	27	268			1.9	6.4	
07/18/00	22.6	32.5	12.7	41	65	23	273			1.6	6.4	
07/19/00	24.1	33.8	13.6	34	55	19	294			1.4	5.3	
07/20/00	23.8	33.7	13.6	38	61	19	273			1.2	5.0	
07/21/00	24.3	35.6	13.7	42	71	20	265			1.0	5.0	
07/22/00	24.3	34.5	15.0	38	61	20	257			1.1	5.2	
07/23/00	24.7	35.5	14.4	35	60	17	252			1.1	5.5	
07/24/00	25.3	36.1	15.6	33	57	16	257			0.9	4.9	
07/25/00	25.1	35.1	15.6	34	57	17	249			1.0	6.0	
07/26/00	24.7	33.6	15.3	35	60	19	275			1.3	5.9	
07/27/00	23.3	33.8	13.7	38	60	20	253			1.4	5.7	
07/28/00	24.0	36.1	13.7	33	49	15	245			1.5	5.7	
07/29/00	25.0	36.5	14.9	35	55	16	232			1.4	5.5	
07/30/00	27.3	37.3	17.6	36	57	18	238			1.4	5.8	
07/31/00	27.3	37.6	18.5	43	69	21	218			1.5	5.8	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
08/01/00	28.5	39.4	21.6	43	66	17	174			0.9	4.9	
08/02/00	27.3	37.8	19.3	44	62	17	146			0.7	3.6	
08/03/00	26.6	35.2	19.0	47	76	25	177			1.5	6.7	
08/04/00	26.4	35.3	19.0	44	67	24	234			1.8	5.7	
08/05/00	25.8	35.1	17.0	41	63	25	228			1.6	5.4	
08/06/00	25.3	34.9	16.8	41	69	20	225			1.4	5.6	
08/07/00	24.0	33.2	16.0	41	66	22	219			1.5	6.4	
08/14/00	23.8	35.8	12.9	30	54	14	240			1.7	6.0	
08/15/00	25.1	36.8	15.6	30	55	13	228			1.4	6.1	
08/16/00	25.2	36.7	15.6	31	55	14	224			1.5	6.1	
08/17/00	24.8	36.3	15.3	29	53	11	230			1.6	6.1	
08/18/00	22.7	33.9	13.5	27	48	11	229			1.5	5.3	
08/19/00	20.8	31.4	11.1	26	44	14	227			1.9	6.0	
08/20/00	20.4	30.5	11.0	33	53	17	223			2.1	8.5	
08/21/00	20.8	32.1	10.7	39	63	17	226			1.7	6.6	
08/22/00	22.2	33.4	11.9	33	57	15	227			1.5	5.8	
08/23/00	22.3	32.7	13.3	32	54	18	213			1.7	6.0	
08/24/00	23.3	35.2	13.2	32	54	15	219			1.5	5.7	
08/25/00	25.2	34.6	17.9	38	56	19	194			1.5	6.4	
08/26/00	24.6	34.0	17.0	49	95	22	210			1.2	5.6	
08/27/00	24.4	35.1	15.9	41	67	20	215			1.3	6.0	
08/28/00	24.5	33.4	16.0	39	63	22	172			1.5	6.4	
08/29/00	21.9	25.6	18.8	48	63	35	61			1.2	6.0	
08/30/00	20.7	25.9	16.1	58	73	42	104			1.4	5.3	
08/31/00	18.2	24.3	13.0	65	87	39	201			2.0	8.4	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
09/01/00	13.5	16.1	12.0	92	104	70	43			0.2	3.1	
09/02/00	16.0	21.7	11.5	78	103	52	207			2.0	7.4	
09/03/00	15.6	22.4	9.6	72	97	47	189			1.7	7.8	
09/04/00	15.0	21.7	8.6	67	95	41	184			1.7	8.0	
09/05/00	15.0	24.3	6.6	55	85	30	185			1.6	6.5	
09/06/00	16.9	29.0	6.5	43	79	16	186			1.5	6.0	
09/07/00	20.0	33.0	10.2	31	58	9	177			1.6	6.4	
09/08/00	19.9	32.3	10.2	31	59	11	180			1.2	5.5	
09/09/00	19.8	31.6	10.0	34	58	14	182			1.5	5.9	
09/10/00	20.1	31.8	10.8	40	65	16	181			1.2	5.9	
09/11/00	20.5	32.3	10.9	37	70	15	183			1.4	6.2	
09/12/00	21.3	34.2	11.2	31	56	12	135			0.5	4.0	
09/13/00	24.4	37.0	15.1	33	57	13	167			0.8	4.5	
09/14/00	22.8	33.2	14.8	44	67	21	169			1.2	5.0	
09/15/00	20.7	29.6	12.9	54	78	33	166			1.8	6.9	
09/16/00	20.6	33.2	10.4	42	62	19	164			1.3	5.6	
09/17/00	22.5	36.3	12.1	36	63	13	162			0.8	4.5	
09/18/00	23.1	36.3	13.0	38	65	13	160			0.8	4.9	
09/19/00	23.2	35.9	13.3	39	66	16	148			1.2	5.9	
09/20/00	23.8	36.8	13.9	41	70	15	145			1.0	4.7	
09/21/00	20.6	29.6	14.2	50	73	30	141			1.7	6.8	
09/22/00	14.9	18.5	11.9	76	95	62	76			1.5	6.7	
09/23/00	14.6	22.9	7.2	67	88	39	135			1.9	7.4	
09/24/00	16.7	27.4	8.2	57	88	28	127			1.8	6.4	
09/25/00	18.0	29.9	9.3	48	79	18	123			1.1	5.3	
09/26/00	18.6	30.5	9.6	42	70	16	113			0.9	4.6	
09/27/00	19.3	30.3	11.3	41	67	19	115			1.4	5.3	
09/28/00	17.0	26.0	10.4	55	74	31	114			1.6	7.1	
09/29/00	16.5	26.1	8.5	62	87	35	116			1.6	7.4	
09/30/00	20.0	32.6	11.3	48	75	17	117			1.2	6.1	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/00	20.2	34.4	11.0	42	68	10	113			0.7	4.2	
10/02/00	19.0	30.9	10.5	42	64	18	109			1.1	5.4	
10/03/00	18.4	29.7	10.3	48	75	22	107			1.3	5.9	
10/04/00	17.5	27.8	9.1	47	72	22	97			1.5	6.7	
10/05/00	18.6	31.9	9.9	47	73	17	93			0.7	5.2	
10/06/00	19.0	31.3	10.1	44	65	16	89			1.0	4.8	
10/07/00	17.8	26.3	11.0	55	75	31	83			1.6	7.0	
10/08/00	16.8	26.3	8.9	63	85	35	92			1.3	7.0	
10/09/00	15.0	24.2	9.0	70	102	39	76			1.4	5.8	
10/10/00	8.1	11.1	6.0	100	107	72	49			0.2	4.0	
10/11/00	8.4	13.1	5.7	96	108	65	69			0.8	5.3	
10/12/00	9.5	13.9	5.9	89	105	63	85			1.6	7.0	
10/13/00	9.7	17.0	3.9	85	105	47	74			1.7	7.4	
10/14/00	11.3	20.8	4.5	80	106	35	62			1.0	5.9	
10/15/00	12.3	21.3	5.5	74	101	37	62			1.1	7.1	
10/16/00	13.5	23.7	5.9	72	102	35	63			1.0	5.9	
10/17/00	14.2	25.5	6.8	64	97	25	56			0.9	5.3	
10/18/00	14.7	24.6	7.2	62	89	27	66			0.8	5.3	
10/19/00	14.0	24.0	6.9	69	94	33	56			0.9	5.5	
10/20/00	14.3	25.0	7.3	69	95	29	55			0.7	7.1	
10/21/00	11.7	17.9	7.3	66	97	33	59			5.4	20.2	
10/22/00	12.5	18.0	7.4	34	73	13	55			9.7	21.8	
10/23/00	10.6	20.3	3.4	57	81	28	53			1.1	6.0	
10/24/00	11.1	20.9	4.7	69	97	34	61			0.8	5.8	
10/25/00	10.5	17.8	5.1	79	105	44	57			0.8	4.4	
10/26/00	7.9	10.3	5.4	104	107	76	26			0.2	2.8	
10/27/00	8.0	14.7	2.7	98	109	67	58			0.7	5.4	
10/28/00												
10/29/00												
10/30/00												
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)			Eastwood Tailrace Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
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05/11/00												
05/12/00												
05/13/00												
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05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)			Eastwood Tailrace Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00												
06/15/00												
06/16/00												
06/17/00												
06/18/00												
06/19/00												
06/20/00							17.1	25.2	8.2	66	96	30
06/21/00	25.4	34.9	17.1	46	69	24	17.9	27.1	8.2	60	85	28
06/22/00	25.9	34.0	18.7	42	67	19	18.1	25.2	9.8	58	93	26
06/23/00	25.0	32.8	18.3	38	56	20	16.6	24.0	8.6	60	83	34
06/24/00	24.0	31.1	16.8	46	71	25	16.3	23.6	7.0	61	86	25
06/25/00	24.8	32.3	17.1	43	70	25	16.3	24.0	9.8	73	94	38
06/26/00	24.1	32.8	16.8	47	67	23	15.9	25.2	8.6	75	98	37
06/27/00	26.1	34.0	18.3	42	65	23	17.5	25.6	9.0	72	97	40
06/28/00	27.0	34.0	20.6	41	65	22	18.7	26.3	11.0	66	93	31
06/29/00	26.7	33.6	19.8	39	56	25	18.3	25.2	11.0	68	93	43
06/30/00	25.0	32.3	18.3	41	67	18	17.1	23.6	9.8	65	95	29

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)			Eastwood Tailrace Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
07/01/00	23.3	30.3	16.0	31	54	14	14.7	22.1	6.6	57	88	24
07/02/00	21.6	28.7	14.1	37	54	23	13.2	21.0	4.6	63	87	38
07/03/00	19.3	25.2	13.3	46	71	24	11.6	17.5	5.0	71	94	42
07/04/00	19.0	26.3	11.8	42	64	24	10.7	17.5	2.5	69	92	42
07/05/00	19.4	25.6	12.6	45	68	28	11.0	17.1	3.7	72	96	49
07/06/00	H	H	H	H	H	H	11.8	19.0	4.2	75	97	41
07/07/00	H	H	H	H	H	H	12.3	19.4	4.6	72	96	43
07/08/00	H	H	H	H	H	H	12.3	19.4	5.0	75	96	54
07/09/00	H	H	H	H	H	H	13.2	21.7	3.7	68	89	42
07/10/00	H	H	H	H	H	H	14.5	21.7	6.2	66	93	40
07/11/00	H	H	H	H	H	H	16.0	24.0	7.8	68	94	37
07/12/00	H	H	H	H	H	H	16.3	24.8	7.8	59	91	20
07/13/00	H	H	H	H	H	H	15.8	24.8	6.2	60	81	31
07/14/00	H	H	H	H	H	H	15.7	24.0	5.4	57	78	23
07/15/00	H	H	H	H	H	H	16.1	23.6	7.4	57	80	33
07/16/00	H	H	H	H	H	H	15.9	22.1	9.4	65	88	39
07/17/00	H	H	H	H	H	H	14.6	22.5	6.2	68	88	41
07/18/00	H	H	H	H	H	H	15.2	24.4	5.4	61	86	32
07/19/00	H	H	H	H	H	H	15.7	24.8	5.0	58	86	25
07/20/00	H	H	H	H	H	H	16.1	26.0	5.4	58	87	26
07/21/00	H	H	H	H	H	H	16.6	27.1	5.8	56	79	28
07/22/00	H	H	H	H	H	H	17.0	26.0	7.8	59	85	27
07/23/00	H	H	H	H	H	H	17.1	27.1	5.8	50	76	22
07/24/00	H	H	H	H	H	H	17.7	26.7	8.2	50	72	23
07/25/00	H	H	H	H	H	H	17.4	26.0	8.6	49	72	24
07/26/00	H	H	H	H	H	H	16.3	24.0	8.2	53	77	26
07/27/00	H	H	H	H	H	H	16.0	25.2	6.6	55	79	26
07/28/00	H	H	H	H	H	H	16.4	26.7	5.8	46	67	15
07/29/00	H	H	H	H	H	H	17.4	27.5	7.4	49	71	27
07/30/00	H	H	H	H	H	H	19.9	28.3	11.0	52	73	27
07/31/00	H	H	H	H	H	H	20.3	29.1	11.8	58	79	29

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)			Eastwood Tailrace Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
08/01/00	H	H	H	H	H	H	22.5	30.3	16.0	55	79	22
08/02/00	H	H	H	H	H	H	20.4	29.5	13.3	62	82	26
08/03/00	H	H	H	H	H	H	19.2	26.3	12.9	66	94	39
08/04/00	H	H	H	H	H	H	18.8	26.0	11.4	66	91	39
08/05/00	H	H	H	H	H	H	18.0	25.2	10.2	60	88	35
08/06/00	H	H	H	H	H	H	17.6	25.2	9.8	58	87	29
08/07/00	H	H	H	H	H	H	16.5	23.6	9.4	60	85	31
08/14/00	25.4	34.4	16.8	24	39	12	16.5	27.5	5.8	46	65	18
08/15/00	26.8	35.3	18.7	24	41	12	17.9	27.1	9.4	47	71	19
08/16/00	26.8	35.3	19.4	25	40	13	18.1	27.1	9.8	46	69	23
08/17/00	26.8	35.3	19.8	23	37	11	17.5	26.7	9.4	46	71	18
08/18/00	25.0	32.8	17.9	20	35	10	15.4	24.8	7.0	40	60	17
08/19/00	23.1	30.7	16.4	21	37	12	13.4	22.5	4.2	41	62	21
08/20/00	21.7	29.9	14.9	29	44	15	13.1	21.7	4.2	51	73	29
08/21/00	22.1	31.1	14.5	32	50	16	13.4	22.9	3.7	53	71	29
08/22/00	23.5	32.8	14.9	29	48	14	14.6	24.0	5.0	47	71	19
08/23/00	23.6	31.5	16.0	29	44	15	15.1	23.2	7.0	48	72	23
08/24/00	25.0	34.0	17.1	27	41	14	16.0	26.0	5.8	47	69	20
08/25/00	26.2	33.2	19.4	33	51	16	18.3	25.2	11.4	55	76	33
08/26/00	26.2	33.6	19.8	40	75	19	18.2	24.8	11.8	57	82	31
08/27/00	25.8	33.6	19.0	35	55	20	17.5	26.0	9.8	59	83	31
08/28/00	25.4	32.3	18.7	35	56	20	17.4	25.2	9.4	56	81	32
08/29/00	22.8	26.0	20.2	43	57	34	15.5	18.3	12.6	67	83	53
08/30/00	21.4	25.6	16.4	54	72	40	14.2	18.3	8.6	76	95	56
08/31/00	18.7	24.4	14.1	63	82	39	11.5	15.6	7.0	84	95	62

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)			Eastwood Tailrace Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
09/01/00	15.7	20.2	12.9	76	100	46	8.4	11.8	5.4	91	100	69
09/02/00	17.1	21.0	13.3	71	93	55	9.9	13.3	6.6	87	98	70
09/03/00	17.4	22.9	12.6	62	86	40	10.0	15.2	5.0	84	98	66
09/04/00	16.0	22.9	10.6	61	86	34	8.6	14.9	3.3	85	99	59
09/05/00	16.6	24.0	10.6	49	78	27	8.2	16.0	1.2	77	98	47
09/06/00	18.3	28.3	9.8	39	72	14	9.9	21.0	-0.2	60	97	16
09/07/00	22.9	31.9	16.4	22	35	10	12.9	24.4	2.9	48	75	12
09/08/00	22.2	31.5	14.9	25	39	11	13.3	22.9	4.6	48	72	19
09/09/00	21.9	30.7	13.7	27	44	12	12.6	22.5	3.7	52	74	20
09/10/00	22.0	31.1	14.5	32	50	15	13.1	23.2	4.6	57	83	25
09/11/00	22.2	31.5	13.7	32	50	14	13.2	24.4	3.3	49	75	20
09/12/00	24.1	33.6	16.4	23	39	10	15.1	24.8	5.4	44	60	18
09/13/00	26.5	36.6	19.0	25	40	11	18.5	28.3	10.2	42	62	19
09/14/00	25.6	32.3	18.7	35	63	22	17.1	24.0	10.2	57	81	31
09/15/00	21.7	29.1	15.2	53	69	31	14.3	23.2	7.4	70	93	40
09/16/00	21.8	31.1	13.3	41	63	16	15.0	25.6	4.6	48	71	20
09/17/00	25.9	34.9	17.9	27	46	15	17.1	27.1	9.4	41	64	18
09/18/00	26.0	35.3	19.0	28	49	12	16.7	27.5	7.8	48	65	17
09/19/00	25.2	35.7	17.1	32	50	13	17.2	27.1	8.6	50	72	19
09/20/00	25.6	36.1	17.5	35	53	15	17.6	27.9	9.4	50	74	20
09/21/00	22.4	28.7	16.0	44	69	29	14.7	21.3	8.2	67	93	45
09/22/00	15.8	18.3	13.3	74	88	58	8.7	10.6	6.2	93	100	80
09/23/00	16.3	22.1	9.0	61	83	40	8.3	12.9	0.7	83	99	59
09/24/00	18.9	27.5	11.8	48	80	24	10.4	19.8	2.0	74	98	40
09/25/00	20.4	29.5	12.6	38	61	17	11.3	21.7	2.9	62	87	27
09/26/00	21.7	30.7	14.1	32	53	13	12.0	21.7	3.3	53	80	22
09/27/00	22.0	30.3	16.0	32	51	17	12.3	21.3	5.0	57	76	30
09/28/00	18.6	24.8	12.2	49	71	29	10.9	19.4	4.6	73	91	45
09/29/00	17.6	26.0	10.6	59	77	35	11.9	22.1	3.7	73	95	26
09/30/00	20.7	31.5	12.2	45	80	23	14.4	25.6	5.8	52	83	18

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)			Eastwood Tailrace Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/00	22.8	33.6	15.2	31	48	12	14.4	26.3	5.8	43	65	10
10/02/00	22.1	30.3	15.6	32	53	14	13.4	23.2	5.8	55	76	25
10/03/00	21.1	29.1	14.5	39	58	18	12.5	21.7	5.0	60	79	25
10/04/00	19.8	27.9	12.9	39	58	18	12.0	22.1	4.2	55	76	24
10/05/00	20.6	29.5	13.7	38	58	18	13.5	24.4	5.0	50	73	17
10/06/00	22.6	30.3	16.8	31	50	15	14.0	23.2	6.2	50	69	20
10/07/00	20.1	26.3	14.5	45	68	25	13.0	22.1	5.8	64	88	28
10/08/00	18.6	26.7	12.6	56	74	35	12.2	22.5	4.6	70	93	33
10/09/00	17.0	25.2	11.4	60	99	30	9.8	16.8	4.2	77	98	46
10/10/00	9.6	12.9	7.0	92	101	58	2.5	5.8	0.3	96	99	80
10/11/00	8.5	12.9	4.6	94	101	60	1.8	5.4	-1.1	95	100	74
10/12/00	10.1	13.7	6.6	88	101	67	3.6	6.2	0.7	93	100	76
10/13/00	11.4	17.5	5.4	76	100	45	4.3	11.0	-1.1	90	100	53
10/14/00	12.7	21.3	6.2	75	98	45	6.1	14.9	-0.2	80	100	42
10/15/00	15.0	22.5	9.0	61	88	32	7.0	16.0	0.3	81	99	40
10/16/00	15.9	24.8	9.8	61	84	29	8.4	17.5	1.6	79	99	30
10/17/00	17.3	26.7	11.4	50	79	20	8.9	18.7	1.2	72	98	25
10/18/00	17.7	26.3	11.0	49	71	20	9.3	19.0	2.0	71	93	21
10/19/00	16.5	24.4	11.4	57	81	30	9.1	19.4	2.0	77	95	35
10/20/00	17.1	25.2	11.4	55	80	24	9.2	19.8	1.6	73	90	28
10/21/00	12.6	16.4	9.4	68	95	28	5.9	11.0	1.6	86	96	45
10/22/00	14.1	20.2	6.6	40	85	10	6.1	12.2	-1.1	64	95	23
10/23/00	12.6	21.7	5.8	51	77	23	5.6	14.9	-1.1	76	96	35
10/24/00	13.9	21.7	8.6	55	76	27	6.1	14.1	-0.2	78	99	36
10/25/00	12.8	19.0	7.8	67	100	37	5.8	10.6	0.7	84	99	62
10/26/00	9.3	11.4	7.4	94	101	83						
10/27/00	10.6	16.0	5.8	81	99	56						
10/28/00	11.0	16.4	5.4	85	101	55						
10/29/00	8.4	10.2	5.0	98	101	89						
10/30/00	6.8	11.4	2.5	86	101	55						
10/31/00	7.7	13.7	1.6	82	100	50						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
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05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00	19.9	31.1	12.6	65	87	34						
06/15/00	20.6	30.3	14.9	66	86	34						
06/16/00	19.9	28.3	14.5	70	90	35						
06/17/00	19.4	28.3	13.7	69	91	31						
06/18/00	17.2	24.0	12.9	76	93	54						
06/19/00	16.7	22.9	11.4	76	93	54						
06/20/00	19.2	27.9	12.9	70	91	42						
06/21/00	20.9	29.9	14.1	58	80	32	30.3	39.8	22.8	35	49	23
06/22/00	21.2	29.1	15.2	57	80	28	30.3	39.3	22.9	34	52	15
06/23/00	19.9	28.3	14.5	56	77	32	28.7	37.8	22.4	33	48	18
06/24/00	19.4	27.5	13.3	59	77	37	28.7	35.9	21.4	36	59	25
06/25/00	19.7	27.5	14.9	67	86	41	29.1	37.0	20.8	37	61	23
06/26/00	19.3	28.7	13.7	65	85	33	28.5	38.7	20.9	38	53	19
06/27/00	19.9	29.5	14.1	65	86	33	30.8	39.7	23.4	34	48	21
06/28/00	20.5	29.1	14.9	65	86	33	31.5	39.6	25.5	34	48	19
06/29/00	20.5	28.7	14.9	65	88	39	30.7	38.2	24.2	33	45	24
06/30/00	19.9	27.9	14.9	61	88	31	29.1	37.5	21.7	33	51	14

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	18.0	26.3	12.9	52	80	21	26.8	35.1	19.9	27	42	12
07/02/00	16.6	24.8	11.0	58	79	37	24.9	32.4	18.4	33	53	22
07/03/00	14.4	21.0	10.2	66	90	38	21.6	29.1	14.5	44	74	22
07/04/00	14.0	22.1	8.6	63	86	34	22.2	30.8	14.6	39	57	22
07/05/00	14.2	21.3	9.0	66	88	40	22.4	30.5	15.7	41	58	25
07/06/00	14.7	21.7	9.4	70	90	46	22.6	30.6	15.3	46	64	27
07/07/00	15.0	21.7	9.8	71	91	49	23.1	30.5	16.7	45	63	28
07/08/00	15.2	22.1	10.2	70	90	49	23.3	31.6	16.3	46	64	28
07/09/00	16.6	24.8	10.2	63	86	39	25.0	34.6	16.4	41	64	20
07/10/00	17.8	26.0	12.2	60	83	35	26.2	35.5	18.1	37	56	22
07/11/00	19.2	27.1	13.3	62	82	38	27.5	36.6	20.0	39	56	22
07/12/00	19.3	27.1	14.1	59	80	33	27.4	35.7	20.5	38	56	18
07/13/00	18.8	27.1	12.6	58	77	36	26.2	35.0	17.7	40	58	27
07/14/00	19.2	28.3	12.2	53	70	33	27.2	36.9	18.6	39	59	22
07/15/00	19.7	27.9	14.1	53	70	33	28.5	37.7	21.2	32	46	18
07/16/00	19.0	26.3	14.5	58	80	36	26.9	34.5	20.9	36	50	20
07/17/00	17.5	24.4	12.2	62	78	41	25.4	33.8	18.6	40	54	24
07/18/00	18.4	27.1	12.2	57	78	32	26.8	36.3	18.6	36	56	20
07/19/00	19.3	28.7	12.2	52	72	25	28.2	37.8	19.5	29	47	17
07/20/00	V	V	V	V	V	V	28.4	38.3	20.0	31	47	20
07/21/00	V	V	V	V	V	V	29.1	38.9	19.9	31	50	16
07/22/00	V	V	V	V	V	V	29.0	38.3	22.0	30	43	16
07/23/00	V	V	V	V	V	V	29.1	39.5	20.2	28	43	16
07/24/00	V	V	V	V	V	V	30.4	40.2	21.8	25	39	12
07/25/00	V	V	V	V	V	V	29.7	39.1	21.4	25	36	13
07/26/00	V	V	V	V	V	V	28.4	37.5	21.0	28	40	14
07/27/00	V	V	V	V	V	V	27.3	36.6	19.7	30	46	19
07/28/00	V	V	V	V	V	V	28.1	38.2	19.1	29	47	16
07/29/00	V	V	V	V	V	V	29.5	39.7	20.6	28	40	15
07/30/00	V	V	V	V	V	V	30.8	40.6	23.3	30	44	15
07/31/00	V	V	V	V	V	V	31.8	41.3	24.6	31	44	19

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
08/01/00	V	V	V	V	V	V	33.3	43.5	24.4	33	55	14
08/02/00	V	V	V	V	V	V	33.2	43.0	26.2	32	44	18
08/03/00	V	V	V	V	V	V	32.2	38.8	26.5	32	42	21
08/04/00	V	V	V	V	V	V	31.3	39.0	24.5	34	49	21
08/05/00	V	V	V	V	V	V	30.9	39.2	24.7	31	46	18
08/06/00	V	V	V	V	V	V	29.9	38.6	22.5	31	46	15
08/07/00	V	V	V	V	V	V	28.5	37.2	21.8	32	46	16
08/14/00	V	V	V	V	V	V	28.8	38.5	20.7	21	30	13
08/15/00	V	V	V	V	V	V	29.8	40.1	22.0	23	36	11
08/16/00	V	V	V	V	V	V	30.1	39.8	22.7	22	32	11
08/17/00	V	V	V	V	V	V	29.8	39.3	22.8	21	33	11
08/18/00	V	V	V	V	V	V	27.9	36.7	21.1	19	27	8
08/19/00	V	V	V	V	V	V	25.7	34.1	19.1	19	33	13
08/20/00	V	V	V	V	V	V	25.1	33.9	17.2	26	40	18
08/21/00	V	V	V	V	V	V	24.8	34.9	16.6	30	44	17
08/22/00	V	V	V	V	V	V	26.5	36.3	18.0	28	43	14
08/23/00	V	V	V	V	V	V	26.4	35.8	19.2	28	40	14
08/24/00	V	V	V	V	V	V	27.5	37.6	19.5	26	37	15
08/25/00	V	V	V	V	V	V	28.4	37.0	20.6	32	50	19
08/26/00	V	V	V	V	V	V	29.6	37.7	23.4	31	48	17
08/27/00	V	V	V	V	V	V	28.8	37.2	22.6	31	42	18
08/28/00	V	V	V	V	V	V	28.5	36.7	21.8	31	45	18
08/29/00	V	V	V	V	V	V	24.6	28.2	21.7	41	55	32
08/30/00	V	V	V	V	V	V	23.5	28.8	18.1	51	68	36
08/31/00	V	V	V	V	V	V	20.5	27.6	14.5	62	89	37

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
09/01/00	V	V	V	V	V	V	17.2	24.0	14.4	82	107	48
09/02/00	V	V	V	V	V	V	18.9	23.6	15.2	72	94	51
09/03/00	V	V	V	V	V	V	19.0	26.2	13.2	64	90	36
09/04/00	V	V	V	V	V	V	18.8	26.7	13.3	58	82	30
09/05/00	V	V	V	V	V	V	M	M	M	M	M	M
09/06/00	V	V	V	V	V	V	M	M	M	M	M	M
09/07/00	V	V	V	V	V	V	M	M	M	M	M	M
09/08/00	V	V	V	V	V	V	M	M	M	M	M	M
09/09/00	V	V	V	V	V	V	M	M	M	M	M	M
09/10/00	V	V	V	V	V	V	M	M	M	M	M	M
09/11/00	V	V	V	V	V	V	M	M	M	M	M	M
09/12/00	V	V	V	V	V	V	M	M	M	M	M	M
09/13/00	V	V	V	V	V	V	M	M	M	M	M	M
09/14/00	V	V	V	V	V	V	M	M	M	M	M	M
09/15/00	V	V	V	V	V	V	M	M	M	M	M	M
09/16/00	V	V	V	V	V	V	M	M	M	M	M	M
09/17/00	V	V	V	V	V	V	M	M	M	M	M	M
09/18/00	V	V	V	V	V	V	M	M	M	M	M	M
09/19/00	V	V	V	V	V	V	M	M	M	M	M	M
09/20/00	V	V	V	V	V	V	M	M	M	M	M	M
09/21/00	V	V	V	V	V	V	M	M	M	M	M	M
09/22/00	V	V	V	V	V	V	M	M	M	M	M	M
09/23/00	V	V	V	V	V	V	M	M	M	M	M	M
09/24/00	V	V	V	V	V	V	M	M	M	M	M	M
09/25/00	V	V	V	V	V	V	M	M	M	M	M	M
09/26/00	V	V	V	V	V	V	M	M	M	M	M	M
09/27/00	V	V	V	V	V	V	M	M	M	M	M	M
09/28/00	V	V	V	V	V	V	M	M	M	M	M	M
09/29/00	V	V	V	V	V	V	M	M	M	M	M	M
09/30/00	V	V	V	V	V	V	M	M	M	M	M	M

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/00	V	V	V	V	V	V	M	M	M	M	M	M
10/02/00	V	V	V	V	V	V	M	M	M	M	M	M
10/03/00	V	V	V	V	V	V	M	M	M	M	M	M
10/04/00	V	V	V	V	V	V	M	M	M	M	M	M
10/05/00	V	V	V	V	V	V	M	M	M	M	M	M
10/06/00	V	V	V	V	V	V	M	M	M	M	M	M
10/07/00	V	V	V	V	V	V	M	M	M	M	M	M
10/08/00	V	V	V	V	V	V	M	M	M	M	M	M
10/09/00	V	V	V	V	V	V	M	M	M	M	M	M
10/10/00	V	V	V	V	V	V	M	M	M	M	M	M
10/11/00	V	V	V	V	V	V	M	M	M	M	M	M
10/12/00	V	V	V	V	V	V	M	M	M	M	M	M
10/13/00	V	V	V	V	V	V	M	M	M	M	M	M
10/14/00	V	V	V	V	V	V	M	M	M	M	M	M
10/15/00	V	V	V	V	V	V	M	M	M	M	M	M
10/16/00	V	V	V	V	V	V	M	M	M	M	M	M
10/17/00	V	V	V	V	V	V	M	M	M	M	M	M
10/18/00	V	V	V	V	V	V	M	M	M	M	M	M
10/19/00	V	V	V	V	V	V	M	M	M	M	M	M
10/20/00	V	V	V	V	V	V	M	M	M	M	M	M
10/21/00	V	V	V	V	V	V	M	M	M	M	M	M
10/22/00	V	V	V	V	V	V	M	M	M	M	M	M
10/23/00	V	V	V	V	V	V	M	M	M	M	M	M
10/24/00	V	V	V	V	V	V	M	M	M	M	M	M
10/25/00	V	V	V	V	V	V	M	M	M	M	M	M
10/26/00	V	V	V	V	V	V	M	M	M	M	M	M
10/27/00	V	V	V	V	V	V	M	M	M	M	M	M
10/28/00	V	V	V	V	V	V	M	M	M	M	M	M
10/29/00	V	V	V	V	V	V	M	M	M	M	M	M
10/30/00	V	V	V	V	V	V						
10/31/00	V	V	V	V	V	V						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
05/01/00						
05/02/00						
05/03/00						
05/04/00						
05/05/00						
05/06/00						
05/07/00						
05/08/00						
05/09/00						
05/10/00						
05/11/00						
05/12/00						
05/13/00						
05/14/00						
05/15/00						
05/16/00						
05/17/00						
05/18/00						
05/19/00						
05/20/00						
05/21/00						
05/22/00						
05/23/00						
05/24/00						
05/25/00						
05/26/00						
05/27/00						
05/28/00						
05/29/00						
05/30/00						
05/31/00						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
06/01/00						
06/02/00						
06/03/00						
06/04/00						
06/05/00						
06/06/00						
06/07/00						
06/08/00						
06/09/00						
06/10/00						
06/11/00						
06/12/00						
06/13/00						
06/14/00						
06/15/00						
06/16/00						
06/17/00						
06/18/00						
06/19/00						
06/20/00				0.3	1.9	
06/21/00	293			0.9	2.8	
06/22/00	298			0.8	3.0	
06/23/00	287			1.2	3.3	
06/24/00	316			0.9	2.8	
06/25/00	295			0.9	3.0	
06/26/00	285			1.5	7.4	
06/27/00	284			1.2	4.1	
06/28/00	282			1.2	3.4	
06/29/00	283			1.2	3.6	
06/30/00	288			1.1	3.5	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
07/01/00	304			1.6	4.5	
07/02/00	293			1.8	3.8	
07/03/00	298			1.2	4.6	
07/04/00	296			1.3	3.5	
07/05/00	282			1.4	4.2	
07/06/00	292			1.3	3.2	
07/07/00	287			1.5	3.9	
07/08/00	286			1.1	2.6	
07/09/00	287			1.1	2.8	
07/10/00	285			1.2	2.8	
07/11/00	271			1.1	3.0	
07/12/00	289			1.3	3.5	
07/13/00	298			1.2	3.3	
07/14/00	287			1.0	2.9	
07/15/00	285			1.4	3.4	
07/16/00	289			1.0	3.5	
07/17/00	286			1.2	3.0	
07/18/00	290			1.2	3.1	
07/19/00	293			1.3	2.8	
07/20/00	287			1.4	3.6	
07/21/00	285			1.2	3.2	
07/22/00	287			1.3	2.9	
07/23/00	285			1.3	2.7	
07/24/00	287			1.4	3.8	
07/25/00	285			1.4	3.7	
07/26/00	305			1.4	3.2	
07/27/00	288			1.3	2.7	
07/28/00	278			1.1	3.0	
07/29/00	279			1.2	3.4	
07/30/00	218			0.7	2.4	
07/31/00	241			1.0	2.4	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
08/01/00	221			0.8	3.5	
08/02/00	173			1.1	2.7	
08/03/00	235			1.7	3.6	
08/04/00	270			1.3	3.1	
08/05/00	268			1.5	3.6	
08/06/00	274			1.3	3.3	
08/07/00	272			1.4	4.0	
08/14/00	272			1.5	3.4	
08/15/00	271			1.4	2.9	
08/16/00	266			1.4	3.0	
08/17/00	272			1.7	4.4	
08/18/00	274			2.2	5.8	
08/19/00	273			1.9	4.1	
08/20/00	301			1.5	3.1	
08/21/00	272			1.2	2.6	
08/22/00	273			1.4	3.7	
08/23/00	262			1.4	4.3	
08/24/00	263			1.4	3.7	
08/25/00	249			0.8	3.0	
08/26/00	253			1.1	4.4	
08/27/00	256			1.3	3.2	
08/28/00	240			0.9	2.8	
08/29/00	77			0.4	3.4	
08/30/00	194			0.7	3.2	
08/31/00	183			0.9	2.9	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
09/01/00	87			0.3	3.3	
09/02/00	148			0.8	3.9	
09/03/00	168			0.8	2.7	
09/04/00	203			1.1	3.6	
09/05/00	M			M	M	
09/06/00	M			M	M	
09/07/00	M			M	M	
09/08/00	M			M	M	
09/09/00	M			M	M	
09/10/00	M			M	M	
09/11/00	M			M	M	
09/12/00	M			M	M	
09/13/00	M			M	M	
09/14/00	M			M	M	
09/15/00	M			M	M	
09/16/00	M			M	M	
09/17/00	M			M	M	
09/18/00	M			M	M	
09/19/00	M			M	M	
09/20/00	M			M	M	
09/21/00	M			M	M	
09/22/00	M			M	M	
09/23/00	M			M	M	
09/24/00	M			M	M	
09/25/00	M			M	M	
09/26/00	M			M	M	
09/27/00	M			M	M	
09/28/00	M			M	M	
09/29/00	M			M	M	
09/30/00	M			M	M	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2000

	Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/00	M			M	M	
10/02/00	M			M	M	
10/03/00	M			M	M	
10/04/00	M			M	M	
10/05/00	M			M	M	
10/06/00	M			M	M	
10/07/00	M			M	M	
10/08/00	M			M	M	
10/09/00	M			M	M	
10/10/00	M			M	M	
10/11/00	M			M	M	
10/12/00	M			M	M	
10/13/00	M			M	M	
10/14/00	M			M	M	
10/15/00	M			M	M	
10/16/00	M			M	M	
10/17/00	M			M	M	
10/18/00	M			M	M	
10/19/00	M			M	M	
10/20/00	M			M	M	
10/21/00	M			M	M	
10/22/00	M			M	M	
10/23/00	M			M	M	
10/24/00	M			M	M	
10/25/00	M			M	M	
10/26/00	M			M	M	
10/27/00	M			M	M	
10/28/00	M			M	M	
10/29/00	M			M	M	
10/30/00						
10/31/00						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01												
05/19/01												
05/20/01												
05/21/01												
05/22/01												
05/23/01												
05/24/01												
05/25/01												
05/26/01												
05/27/01												
05/28/01												
05/29/01												
05/30/01												
05/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	18.0	21.7	14.1	38	58	23	367			3.7	7.9	
06/02/01	13.7	16.3	8.1	38	58	24	371			3.0	6.0	
06/03/01	11.6	17.0	5.5	36	68	14	377			1.3	3.5	
06/04/01	12.4	18.6	5.5	45	73	14	377			1.3	3.3	
06/05/01	13.4	19.5	7.0	44	65	29	363			1.2	3.4	
06/06/01	16.7	23.8	9.5	41	70	13	379			1.2	3.0	
06/07/01	17.6	24.1	11.0	33	61	11	381			1.4	5.3	
06/08/01	16.7	23.2	10.8	30	47	14	380			1.5	4.9	
06/09/01	16.0	22.9	9.0	35	54	16	376			1.2	2.9	
06/10/01	15.4	21.5	9.9	35	52	22	375			1.4	4.1	
06/11/01	14.1	20.5	7.8	37	55	16	348			1.2	3.3	
06/12/01	13.1	18.0	7.9	47	72	18	383			1.3	3.3	
06/13/01	13.1	19.6	5.2	32	69	7	387			1.7	4.6	
06/14/01	15.0	20.8	8.5	35	54	21	376			1.4	3.8	
06/15/01	16.6	24.0	9.1	37	65	16	377			1.3	4.3	
06/16/01	18.1	24.9	11.3	32	52	11	380			1.4	4.4	
06/17/01	17.4	23.3	11.1	31	48	17	373			1.4	4.3	
06/18/01	17.5	24.0	10.6	28	45	11	378			1.4	3.7	
06/19/01	18.1	25.1	10.3	29	51	12	380			1.4	3.6	
06/20/01	19.5	26.0	12.6	31	54	11	366			1.3	3.9	
06/21/01	20.1	26.3	13.4	33	49	12	369			1.2	3.3	
06/22/01	20.2	26.1	14.5	39	58	20	375			1.4	5.2	
06/23/01	18.4	23.2	13.2	40	60	29	360			1.5	4.8	
06/24/01	16.6	21.9	11.1	35	55	19	365			1.7	5.0	
06/25/01	14.4	20.4	8.5	37	55	21	362			1.4	3.2	
06/26/01	14.5	18.8	10.9	49	68	35	253			1.7	5.2	
06/27/01	15.5	19.5	10.6	46	73	24	376			2.9	6.8	
06/28/01	16.6	24.1	8.9	41	59	21	380			1.5	4.6	
06/29/01	18.5	25.6	10.5	36	52	16	360			1.2	3.0	
06/30/01	19.7	26.3	12.5	33	53	12	381			1.8	5.1	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	20.9	27.5	13.6	33	52	17	346			1.2	3.8	
07/02/01	21.0	28.1	15.8	41	60	23	289			1.6	4.7	
07/03/01	21.3	27.6	16.1	44	60	24	212			1.1	7.3	
07/04/01	18.9	22.9	14.6	64	96	44	159			0.9	7.1	
07/05/01	19.0	24.5	14.2	62	83	37	300			1.4	4.9	
07/06/01	15.4	17.9	13.2	85	98	65	89			0.8	2.1	
07/07/01	14.0	17.0	12.0	94	104	75	140			0.7	3.3	
07/08/01	15.4	20.4	11.1	77	100	49	175			1.0	5.1	
07/09/01	15.6	22.4	10.3	62	84	33	165			1.0	4.2	
07/10/01	16.5	21.4	11.0	57	74	37	253			1.2	5.1	
07/11/01	16.4	22.1	10.7	53	84	21	346			1.6	5.7	
07/12/01	16.5	23.3	9.8	46	78	24	355			1.2	3.6	
07/13/01	17.1	23.5	10.6	38	60	10	318			1.1	4.0	
07/14/01	15.8	21.3	10.0	41	61	29	310			1.5	5.1	
07/15/01	14.9	20.5	8.5	39	56	21	352			1.4	3.3	
07/16/01	13.5	18.7	7.7	45	63	26	268			1.4	3.3	
07/17/01	13.6	18.6	7.7	55	76	34	263			1.2	3.1	
07/18/01	14.2	19.7	8.0	60	85	38	254			1.4	3.1	
07/19/01	14.1	19.9	7.8	50	73	30	280			1.3	3.1	
07/20/01	14.7	21.1	8.0	50	70	30	352			1.5	3.4	
07/21/01	15.0	21.5	8.4	48	74	28	351			1.3	3.3	
07/22/01	15.7	22.4	8.5	41	59	25	351			1.4	3.4	
07/23/01	16.2	22.5	9.6	46	70	27	301			1.4	3.5	
07/24/01	17.9	25.0	10.7	39	60	11	359			1.2	3.1	
07/25/01	19.2	26.7	13.1	40	62	11	331			1.2	4.6	
07/26/01	20.4	27.1	13.7	42	69	15	338			1.3	4.3	
07/27/01	19.9	25.8	13.2	32	58	13	355			1.5	5.1	
07/28/01	19.4	25.2	13.2	27	43	14	357			1.3	3.7	
07/29/01	18.9	25.3	12.5	30	50	15	358			1.5	4.7	
07/30/01	16.0	22.2	10.0	38	65	18	352			1.4	3.7	
07/31/01	17.3	24.3	9.9	45	72	24	348			1.4	3.7	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	18.5	24.5	12.5	43	58	29	316			1.4	3.3	
08/02/01	19.1	25.3	12.9	46	71	26	342			1.3	3.3	
08/03/01	18.7	24.7	13.0	43	68	16	346			1.6	5.2	
08/04/01	17.2	23.4	9.8	33	64	11	349			1.2	4.0	
08/05/01	19.3	26.8	11.6	28	49	11	351			1.3	4.0	
08/06/01	20.3	26.7	14.2	31	48	17	238			1.1	3.9	
08/07/01	21.5	27.6	15.6	41	57	22	275			1.0	3.3	
08/08/01	21.5	27.1	16.3	40	63	23	258			1.1	3.3	
08/09/01	20.8	27.0	14.9	39	55	26	277			1.0	3.0	
08/10/01	20.7	27.7	14.0	39	65	16	329			1.1	3.3	
08/11/01	21.2	27.8	14.6	28	45	13	337			1.3	4.2	
08/12/01	20.9	26.6	14.8	26	36	13	333			1.4	4.1	
08/13/01	19.7	25.2	13.9	32	44	18	325			1.4	4.4	
08/14/01	20.4	27.0	14.0	32	49	12	333			1.2	3.2	
08/15/01	20.4	27.2	13.8	33	52	18	303			1.1	3.1	
08/16/01	21.0	27.8	13.9	27	46	13	328			1.0	3.4	
08/17/01	20.8	26.9	14.5	30	43	16	298			1.3	4.1	
08/18/01	21.3	27.5	14.5	31	51	12	326			1.4	3.9	
08/19/01	20.9	26.6	15.2	29	42	17	319			1.3	3.5	
08/20/01	18.3	23.9	12.5	32	46	16	320			1.9	5.0	
08/21/01	15.3	20.9	9.5	35	50	17	305			1.2	3.3	
08/22/01	15.4	21.4	9.5	41	56	23	269			1.2	3.3	
08/23/01	15.9	24.0	8.5	35	54	14	309			1.1	3.3	
08/24/01	17.6	25.1	9.9	32	52	12	311			1.2	3.2	
08/25/01	19.9	27.3	12.6	29	50	14	313			1.2	3.3	
08/26/01	20.9	27.9	14.5	31	47	14	310			1.1	3.4	
08/27/01	21.4	28.7	14.5	32	51	16	305			1.2	3.1	
08/28/01	21.7	28.9	15.2	28	45	13	304			1.1	4.1	
08/29/01	19.6	26.1	13.3	34	47	16	271			1.2	3.5	
08/30/01	18.0	24.8	12.8	41	59	26	298			1.2	3.6	
08/31/01	18.0	24.7	11.3	34	51	19	298			1.1	3.7	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	17.9	24.5	11.6	33	48	19	298			1.0	3.1	
09/02/01	17.9	23.5	11.8	38	55	25	204			0.9	2.6	
09/03/01	15.9	23.3	12.3	56	84	27	126			1.1	5.6	
09/04/01	16.8	23.2	10.4	51	73	26	265			1.2	3.2	
09/05/01	16.2	22.3	11.3	49	72	29	290			1.4	4.0	
09/06/01	15.8	23.3	9.2	32	50	10	300			1.3	4.2	
09/07/01	17.6	24.8	11.4	33	49	16	293			1.3	3.5	
09/08/01	17.7	25.3	10.9	27	46	13	291			1.2	3.6	
09/09/01	17.4	24.5	11.3	27	40	13	291			1.2	3.4	
09/10/01	17.1	23.1	11.0	37	54	21	282			1.4	3.7	
09/11/01	16.4	22.0	11.8	41	58	22	192			1.1	3.3	
09/12/01	14.5	20.5	8.5	39	59	14	290			1.5	4.6	
09/13/01	14.2	21.8	6.9	33	58	10	286			1.2	3.2	
09/14/01	15.7	23.4	9.0	28	45	10	284			1.2	3.0	
09/15/01	15.4	23.8	8.4	28	42	12	283			1.2	3.5	
09/16/01	14.1	20.8	8.4	36	52	18	258			1.3	3.7	
09/17/01	14.9	22.0	8.6	41	66	14	273			1.2	3.6	
09/18/01	16.3	23.1	10.0	37	56	21	268			1.1	3.5	
09/19/01	16.5	24.4	10.3	39	55	20	270			1.1	2.9	
09/20/01	16.9	23.9	10.8	39	59	19	243			1.0	3.1	
09/21/01	17.1	25.2	11.1	34	50	17	263			1.0	3.2	
09/22/01	17.3	25.5	10.9	30	46	13	253			1.0	3.3	
09/23/01	16.5	22.7	11.0	29	47	13	222			1.3	4.2	
09/24/01	17.4	24.5	10.5	25	36	17	228			1.5	4.5	
09/25/01	16.0	21.5	10.7	44	84	17	242			2.6	5.5	
09/26/01	15.2	23.7	8.4	31	55	14	262			1.0	3.3	
09/27/01	17.3	22.7	10.4	27	39	14	258			2.3	5.4	
09/28/01	13.9	20.9	7.5	33	47	19	251			1.3	3.4	
09/29/01	16.1	25.3	9.3	31	50	14	253			1.0	3.5	
09/30/01	16.4	24.0	10.0	28	44	16	140			0.8	1.9	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Florence Lake Air Temperature (°C)			Florence Lake Relative Humidity (%)			Florence Lake Solar Radiation (Watts/m 2)			Florence Lake Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	16.8	24.2	11.4	31	43	15	184			0.8	3.6	
10/02/01	17.3	25.7	11.4	31	44	14	247			1.0	3.4	
10/03/01	17.0	24.3	10.8	33	47	14	240			1.0	3.0	
10/04/01	16.2	23.9	10.3	37	52	18	235			1.1	3.5	
10/05/01	13.8	20.1	9.9	42	53	29	192			1.2	3.5	
10/06/01	11.4	18.1	6.2	47	65	29	196			1.2	3.3	
10/07/01	11.9	19.5	6.0	42	61	16	227			1.2	3.4	
10/08/01	11.5	16.8	6.8	51	72	14	147			1.0	3.3	
10/09/01	10.4	17.4	4.3	46	78	7	233			1.2	3.5	
10/10/01	10.6	17.7	4.3	37	59	16	208			1.2	3.6	
10/11/01	10.2	15.8	6.0	50	65	30	133			1.1	3.3	
10/12/01	13.5	23.8	5.1	35	68	14	224			1.4	4.9	
10/13/01												
10/14/01												
10/15/01												
10/16/01												
10/17/01												
10/18/01												
10/19/01												
10/20/01												
10/21/01												
10/22/01												
10/23/01												
10/24/01												
10/25/01												
10/26/01												
10/27/01												
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

Date	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01							11.0	17.1	4.9	71	93	40
05/19/01							13.2	20.0	6.9	67	91	31
05/20/01							14.3	20.7	7.4	59	95	26
05/21/01							15.5	21.5	8.5	62	92	43
05/22/01							16.2	23.3	8.9	61	91	35
05/23/01							16.1	23.1	9.3	61	85	33
05/24/01							15.4	22.1	9.2	60	81	34
05/25/01							14.5	20.3	8.8	57	82	28
05/26/01							13.5	19.6	7.5	50	79	24
05/27/01							12.5	19.0	8.0	58	79	31
05/28/01							10.7	15.2	6.5	68	92	39
05/29/01							13.2	20.0	7.1	66	92	43
05/30/01							17.4	25.3	10.3	51	82	25
05/31/01							17.9	25.6	11.1	55	80	31

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

Date	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01							16.2	22.8	10.0	56	82	37
06/02/01							11.1	15.9	5.5	60	91	30
06/03/01							8.9	13.7	4.2	62	94	33
06/04/01							9.7	14.9	4.2	70	100	48
06/05/01							11.0	16.8	5.3	60	86	35
06/06/01							13.6	19.5	7.8	65	88	41
06/07/01							15.5	22.9	8.5	52	77	23
06/08/01							H	H	H	H	H	H
06/09/01							H	H	H	H	H	H
06/10/01							H	H	H	H	H	H
06/11/01							H	H	H	H	H	H
06/12/01							H	H	H	H	H	H
06/13/01							H	H	H	H	H	H
06/14/01							H	H	H	H	H	H
06/15/01							H	H	H	H	H	H
06/16/01							H	H	H	H	H	H
06/17/01							H	H	H	H	H	H
06/18/01							H	H	H	H	H	H
06/19/01							H	H	H	H	H	H
06/20/01							H	H	H	H	H	H
06/21/01							H	H	H	H	H	H
06/22/01							18.4	25.6	12.1	50	72	26
06/23/01							17.2	23.3	11.9	50	74	28
06/24/01							14.0	19.1	8.7	49	78	26
06/25/01							12.2	18.0	6.9	53	73	33
06/26/01							12.6	16.9	9.1	67	87	49
06/27/01							13.6	18.4	9.3	63	97	37
06/28/01							13.8	19.6	7.6	64	84	41
06/29/01							15.7	22.0	9.3	63	85	38
06/30/01							17.4	24.7	10.2	53	80	25

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

Date	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01							18.8	25.8	11.8	52	79	31
07/02/01							20.2	28.0	13.3	52	75	28
07/03/01							21.6	29.7	15.4	54	81	29
07/04/01							19.7	24.3	15.3	63	83	46
07/05/01							19.2	25.2	14.2	65	92	43
07/06/01							14.8	16.6	12.5	97	112	74
07/07/01							13.7	16.5	12.0	109	113	95
07/08/01							15.5	20.0	11.4	94	110	69
07/09/01							16.4	22.3	10.8	76	102	50
07/10/01							15.9	20.9	11.4	74	95	56
07/11/01							14.7	19.4	10.7	76	98	52
07/12/01							13.9	19.9	8.2	73	93	50
07/13/01	15.8	25.2	5.0	53	87	15	14.9	21.3	9.0	61	85	37
07/14/01	15.1	23.6	5.8	53	90	24	14.5	20.1	9.5	59	83	34
07/15/01	14.1	22.9	3.3	51	88	17	13.3	19.4	7.6	59	85	40
07/16/01	13.3	21.7	3.7	56	90	29	11.8	16.0	7.4	73	95	48
07/17/01	13.7	21.7	3.7	60	91	33	11.9	16.8	7.0	77	98	60
07/18/01	14.5	23.2	5.4	60	96	32	12.8	18.4	7.6	77	102	51
07/19/01	14.1	22.5	4.6	56	93	23	13.1	19.0	6.9	64	92	43
07/20/01	14.4	22.9	4.6	56	91	25	13.3	18.9	8.0	70	92	48
07/21/01	14.5	22.9	4.6	56	94	26	13.3	18.9	8.3	68	96	48
07/22/01	15.1	24.4	3.7	51	86	20	13.6	20.3	7.1	61	87	40
07/23/01	15.6	24.8	5.4	52	89	24	14.4	20.6	8.3	62	90	38
07/24/01	17.4	28.7	5.8	48	87	8	16.4	22.8	10.5	60	84	35
07/25/01	18.6	29.5	7.0	50	86	7	17.4	23.1	10.9	62	86	32
07/26/01	19.8	29.5	9.8	53	93	19	18.3	25.0	12.3	65	93	37
07/27/01	18.8	29.1	7.0	38	78	9	19.2	27.6	11.7	40	65	16
07/28/01	17.9	27.9	6.6	36	68	12	18.7	26.4	12.0	37	60	16
07/29/01	17.2	27.9	5.8	37	69	14	17.1	24.1	11.3	43	64	25
07/30/01	15.1	23.2	5.4	47	76	19	14.0	19.0	9.8	63	96	38
07/31/01	16.6	26.3	6.2	51	89	19	14.4	21.5	8.0	73	99	52

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

Date	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	17.6	27.1	7.0	50	84	25	16.7	23.5	11.3	61	83	36
08/02/01	18.6	27.9	8.2	50	87	20	18.1	25.3	11.7	58	83	30
08/03/01	17.6	26.3	8.6	52	87	28	16.8	22.6	11.9	62	88	39
08/04/01	15.8	25.6	4.6	39	77	9	15.4	22.4	8.7	54	88	29
08/05/01	17.5	29.1	5.0	37	72	11	16.5	24.0	9.3	46	63	26
08/06/01	18.4	30.3	6.6	40	68	12	19.5	27.2	12.9	44	67	21
08/07/01	20.3	30.7	10.2	48	81	19	21.1	27.8	15.0	51	73	31
08/08/01	20.3	30.3	11.0	47	82	16	20.8	27.7	15.2	49	71	26
08/09/01	19.6	29.9	9.8	45	77	20	19.6	25.7	14.3	50	71	32
08/10/01	19.5	29.1	9.8	46	78	19	18.5	24.8	13.2	56	80	33
08/11/01	19.5	30.7	7.8	38	72	9	18.6	26.5	12.5	48	67	29
08/12/01	19.1	29.9	8.2	34	60	11	18.8	25.5	12.7	44	63	23
08/13/01	18.5	28.7	7.4	38	66	13	18.4	25.7	12.1	46	68	23
08/14/01	18.8	29.9	8.2	40	76	13	18.7	26.5	12.3	45	66	15
08/15/01	18.7	29.9	7.8	39	69	14	18.5	25.8	12.2	44	66	24
08/16/01	19.3	30.7	7.8	36	70	10	19.6	27.7	12.2	39	65	13
08/17/01	19.3	30.7	7.8	35	68	9	19.9	28.0	12.5	42	63	17
08/18/01	19.6	30.7	8.2	39	71	10	20.1	28.3	13.5	47	73	22
08/19/01	18.6	29.9	7.8	36	64	12	18.9	25.6	13.1	45	69	25
08/20/01	16.3	26.7	7.0	39	64	14	16.2	22.8	11.2	50	74	29
08/21/01	14.3	23.2	5.4	42	73	15	13.7	18.7	9.2	55	79	34
08/22/01	13.8	23.2	5.0	48	79	18	13.2	18.9	8.4	62	85	40
08/23/01	14.6	26.0	2.9	48	81	11	13.1	19.8	7.1	59	86	33
08/24/01	15.7	26.7	3.7	46	73	15	14.5	20.7	8.7	55	82	26
08/25/01	17.9	29.5	5.8	41	72	11	18.8	26.8	11.8	45	79	18
08/26/01	18.8	30.3	7.4	39	69	11	19.9	28.5	13.0	44	67	17
08/27/01	19.2	30.7	8.2	40	73	14	19.3	26.8	12.5	45	66	25
08/28/01	19.5	31.9	7.8	37	63	9	19.5	27.4	13.5	47	72	25
08/29/01	18.0	29.1	7.4	44	73	11	17.9	24.8	11.9	52	73	31
08/30/01	16.6	27.1	7.4	49	79	24	15.6	20.6	11.4	58	79	40
08/31/01	16.2	27.1	6.2	45	72	16	15.7	22.2	10.3	55	74	35

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

Date	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	16.0	27.1	5.8	42	71	15	16.3	22.4	10.5	49	67	24
09/02/01	16.3	26.3	6.2	44	74	20	17.3	24.6	11.3	51	73	30
09/03/01	15.7	26.7	8.6	54	80	22	16.6	22.6	12.3	62	83	40
09/04/01	15.9	26.0	5.8	53	88	23	16.7	23.9	11.1	59	82	36
09/05/01	14.9	23.6	7.0	53	86	26	15.6	21.5	10.7	60	86	34
09/06/01	13.9	25.2	2.5	43	73	10	14.1	20.2	8.5	52	77	29
09/07/01	15.1	26.3	3.7	42	73	13	15.4	22.2	9.8	53	78	28
09/08/01	15.0	27.1	3.3	37	67	10	16.2	23.9	10.1	43	73	22
09/09/01	14.8	26.3	4.2	35	65	10	16.6	24.4	10.7	38	59	18
09/10/01	14.7	25.6	4.6	42	69	18	16.0	21.7	10.8	49	74	30
09/11/01	15.0	23.2	7.8	48	68	21	15.0	20.2	10.6	59	76	29
09/12/01	13.0	22.9	3.3	49	76	14	13.0	18.5	8.5	62	88	35
09/13/01	12.2	23.6	1.2	46	79	10	12.5	19.7	6.2	56	79	27
09/14/01	12.9	25.6	1.6	40	67	9	14.2	21.9	7.8	44	67	22
09/15/01	12.8	24.4	1.6	39	69	10	14.2	21.8	8.5	44	64	19
09/16/01	11.9	22.1	2.5	46	75	19	13.2	19.7	7.8	54	75	34
09/17/01	12.8	24.0	2.5	50	85	16	13.4	20.2	7.5	60	85	35
09/18/01	13.8	25.2	3.7	47	81	15	15.3	22.7	9.3	53	74	24
09/19/01	13.9	25.2	4.2	48	78	15	15.2	22.2	9.7	52	71	28
09/20/01	14.3	26.0	5.0	48	85	17	15.9	23.4	10.2	52	74	31
09/21/01	14.4	26.3	4.6	44	72	12	15.3	22.2	10.1	49	70	25
09/22/01	14.2	26.3	3.7	42	75	11	15.7	23.4	10.2	47	77	27
09/23/01	13.8	25.2	4.2	39	70	7	15.6	23.0	10.7	43	63	16
09/24/01	14.6	27.5	2.9	31	58	12	16.9	25.2	9.8	32	54	17
09/25/01	15.7	24.0	7.0	48	80	10	14.9	20.3	10.0	58	86	32
09/26/01	12.6	25.2	2.0	42	71	11	13.9	20.6	8.4	48	68	20
09/27/01	12.6	24.8	2.9	41	71	11	14.3	21.8	9.3	50	71	23
09/28/01	11.2	22.5	1.6	42	70	16	12.0	18.1	7.1	56	76	39
09/29/01	12.7	26.3	2.5	42	76	11	15.2	23.7	8.6	45	71	22
09/30/01	12.8	26.0	2.5	39	65	13	16.9	25.5	10.3	39	67	18

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

Date	Rattlesnake Creek Air Temperature (°C)			Rattlesnake Creek Relative Humidity (%)			Huntington Lake Air Temperature (°C)			Huntington Lake Relative Humidity (%)		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	13.2	27.1	3.7	43	72	11	17.3	26.2	11.6	40	59	17
10/02/01	13.9	27.5	3.7	43	73	11	17.3	24.9	12.0	43	70	19
10/03/01	13.9	26.3	3.7	45	72	12	16.4	24.0	10.7	47	70	23
10/04/01	13.3	24.4	4.6	47	75	17	15.0	22.5	9.9	52	71	25
10/05/01	11.9	22.1	5.4	48	70	24	12.0	17.4	7.5	58	75	39
10/06/01	9.3	19.4	1.6	54	78	27	9.4	14.1	5.6	69	84	52
10/07/01	9.3	20.6	-0.2	52	78	19	10.2	16.3	5.3	64	87	37
10/08/01	10.0	19.0	2.5	57	80	12	9.8	15.0	6.2	72	96	44
10/09/01	8.4	19.0	-1.1	56	88	11	8.5	14.9	3.0	72	97	32
10/10/01	7.8	19.8	-2.4	51	77	13	9.7	17.0	4.2	59	87	35
10/11/01	8.1	18.3	0.3	58	82	28	9.4	15.7	5.9	64	86	30
10/12/01	10.2	25.6	-1.1	46	84	12	11.1	17.9	5.6	57	85	34
10/13/01	10.1	26.7	-1.1	32	58	3	12.9	20.7	6.6	43	67	17
10/14/01	9.9	24.8	-1.1	31	54	8	14.2	22.9	8.5	34	53	14
10/15/01	10.8	24.8	1.2	35	60	9						
10/16/01	10.6	23.2	1.2	35	57	11						
10/17/01	9.6	20.2	1.6	39	60	14						
10/18/01	9.4	23.2	-0.2	43	65	13						
10/19/01	9.5	21.3	0.3	44	72	15						
10/20/01	9.4	21.3	-0.2	38	66	9						
10/21/01	7.7	17.5	-0.2	46	70	22						
10/22/01	6.8	18.3	-1.5	53	80	16						
10/23/01	7.9	20.2	0.3	56	89	15						
10/24/01	7.5	22.1	-2.4	42	67	9						
10/25/01												
10/26/01												
10/27/01												
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01							16.1	22.9	9.4
05/02/01							13.3	18.3	8.6
05/03/01							12.3	19.8	5.0
05/04/01							14.5	21.7	6.2
05/05/01							15.4	23.6	8.2
05/06/01							17.3	25.6	9.4
05/07/01							19.7	29.5	11.8
05/08/01							21.1	31.1	12.2
05/09/01							20.6	29.9	12.2
05/10/01							20.2	28.7	11.8
05/11/01							20.9	31.1	12.9
05/12/01							18.6	24.4	14.5
05/13/01							16.6	22.9	10.6
05/14/01							16.6	24.0	9.8
05/15/01							17.9	24.4	11.8
05/16/01							18.3	24.0	12.9
05/17/01							18.5	25.6	11.8
05/18/01	299			3.9	8.8		18.0	25.2	12.2
05/19/01	354			4.4	9.9		19.9	28.3	11.4
05/20/01	358			4.5	9.5		21.1	29.5	12.6
05/21/01	367			4.2	8.1		23.0	30.3	16.8
05/22/01	353			3.8	7.6		23.2	32.3	15.2
05/23/01	360			4.2	8.4		22.8	31.1	15.2
05/24/01	358			4.3	8.0		22.1	30.7	15.2
05/25/01	358			4.1	8.7		21.1	29.5	13.7
05/26/01	356			4.1	9.9		19.9	28.7	12.2
05/27/01	347			4.7	10.5		18.5	26.0	12.6
05/28/01	362			4.5	9.2		16.6	22.5	11.0
05/29/01	361			3.9	7.5		18.1	26.3	10.6
05/30/01	355			4.0	7.1		21.6	32.8	12.9
05/31/01	358			4.2	7.6		23.6	34.0	14.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	338			4.0	7.9		22.6	31.1	14.9
06/02/01	363			3.5	7.3		18.3	24.8	11.8
06/03/01	362			4.0	7.9		15.3	22.1	8.6
06/04/01	358			4.0	8.9		16.2	23.6	9.0
06/05/01	350			4.0	8.4		17.8	26.3	10.2
06/06/01	358			4.8	10.3		19.6	27.9	12.2
06/07/01	361			4.3	8.4		21.6	30.7	13.3
06/08/01	H			H	H		21.9	30.7	13.3
06/09/01	H			H	H		20.2	27.5	12.9
06/10/01	H			H	H		19.8	27.1	13.7
06/11/01	H			H	H		18.6	25.2	11.8
06/12/01	H			H	H		17.9	24.4	11.4
06/13/01	H			H	H		17.1	25.2	9.0
06/14/01	H			H	H		19.9	29.1	11.0
06/15/01	H			H	H		21.9	31.1	12.6
06/16/01	H			H	H		23.1	32.3	13.7
06/17/01	H			H	H		23.5	32.3	14.9
06/18/01	H			H	H		22.8	31.9	13.7
06/19/01	H			H	H		23.3	32.3	14.1
06/20/01	H			H	H		24.1	33.6	15.2
06/21/01	H			H	H		25.3	34.0	16.8
06/22/01	343			3.8	8.0		25.8	34.0	17.5
06/23/01	344			3.5	7.9		24.3	31.5	17.5
06/24/01	337			3.5	7.4		21.2	28.3	14.9
06/25/01	339			3.7	7.8		19.2	26.0	12.2
06/26/01	332			3.1	8.3		20.3	25.6	16.0
06/27/01	354			3.3	9.3		20.5	26.7	15.6
06/28/01	356			3.8	9.0		20.1	27.1	12.9
06/29/01	349			3.6	7.2		22.0	29.9	14.5
06/30/01	358			3.8	9.0		23.7	33.2	15.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	345			3.9	8.7		25.2	34.4	16.4
07/02/01	337			4.2	8.0		26.8	36.1	18.3
07/03/01	314			3.5	7.5		28.4	37.9	21.0
07/04/01	165			2.6	7.3		27.9	34.9	24.0
07/05/01	328			3.3	7.3		26.8	33.6	20.2
07/06/01	68			1.2	4.3		21.1	24.0	19.0
07/07/01	119			1.1	3.4		20.9	26.0	17.9
07/08/01	243			2.7	7.1		23.0	29.9	16.8
07/09/01	343			3.4	8.7		23.6	30.7	16.8
07/10/01	343			3.8	8.2		22.7	29.1	16.4
07/11/01	358			3.5	7.6		21.8	27.5	16.4
07/12/01	343			3.7	8.2		20.4	27.9	13.3
07/13/01	341			3.6	7.7		21.7	29.5	14.1
07/14/01	356			3.5	8.0		21.8	29.5	14.5
07/15/01	346			3.5	7.7		20.4	27.5	12.9
07/16/01	350			3.4	7.9		18.6	24.0	12.9
07/17/01	340			3.3	7.8		18.8	25.2	12.2
07/18/01	352			3.3	7.6		20.0	27.1	12.9
07/19/01	353			3.4	8.0		20.4	28.3	12.6
07/20/01	355			3.7	8.6		20.3	27.5	13.3
07/21/01	355			3.5	8.6		20.1	27.5	13.3
07/22/01	358			3.5	8.0		20.6	28.7	12.6
07/23/01	346			3.4	8.1		21.6	29.5	13.3
07/24/01	349			3.9	9.1		23.1	31.5	15.2
07/25/01	327			4.0	10.1		24.1	31.1	16.4
07/26/01	345			3.8	8.9		25.4	33.6	17.9
07/27/01	351			4.0	8.5		26.3	36.1	16.8
07/28/01	352			3.7	7.5		25.6	35.3	16.8
07/29/01	353			3.4	7.9		24.1	32.8	16.4
07/30/01	344			3.6	7.8		20.7	26.7	14.9
07/31/01	345			3.2	7.2		21.2	28.7	14.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	342			3.4	7.3		23.1	31.5	14.9
08/02/01	339			3.1	7.3		24.6	32.8	16.8
08/03/01	340			3.4	7.8		23.9	30.3	17.5
08/04/01	348			3.5	7.5		22.2	29.9	14.5
08/05/01	351			4.0	8.1		22.3	31.1	13.7
08/06/01	328			3.8	8.2		24.8	33.6	16.8
08/07/01	328			3.6	7.8		27.1	35.7	19.8
08/08/01	332			3.9	9.6		27.7	35.7	20.6
08/09/01	332			3.6	8.5		26.4	34.0	19.4
08/10/01	334			3.7	8.4		25.0	32.3	18.7
08/11/01	329			3.8	7.6		24.6	32.8	16.8
08/12/01	336			3.7	8.0		24.9	33.2	17.1
08/13/01	335			4.2	11.3		24.2	32.8	16.4
08/14/01	337			3.7	7.9		24.5	33.6	16.4
08/15/01	315			3.6	8.6		24.8	33.6	17.1
08/16/01	333			3.7	10.1		25.8	36.1	16.8
08/17/01	299			3.6	8.7		26.2	35.3	17.9
08/18/01	317			3.2	6.9		26.2	35.3	18.3
08/19/01	318			3.7	8.4		25.3	34.0	17.9
08/20/01	323			3.3	7.4		22.9	30.3	16.4
08/21/01	324			3.2	7.3		20.2	26.3	14.5
08/22/01	313			3.2	6.8		19.4	26.3	13.3
08/23/01	322			3.4	8.2		19.2	26.3	12.6
08/24/01	319			3.7	7.9		20.4	28.3	12.9
08/25/01	319			3.6	8.0		23.2	33.2	15.2
08/26/01	316			3.3	7.3		25.3	34.4	17.5
08/27/01	315			4.1	8.2		25.3	34.0	17.1
08/28/01	306			4.1	8.8		25.3	33.6	17.9
08/29/01	309			3.4	7.9		24.5	32.3	17.5
08/30/01	302			3.4	7.7		21.7	27.5	16.4
08/31/01	303			3.4	6.9		21.2	28.7	14.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	304			3.5	7.6		22.1	30.7	14.9
09/02/01	300			3.2	7.4		23.4	31.9	16.0
09/03/01	191			2.6	8.1		23.6	30.7	17.9
09/04/01	295			3.4	7.7		23.4	31.9	15.6
09/05/01	299			3.5	7.2		22.7	30.3	16.4
09/06/01	298			3.7	7.8		20.3	27.9	13.3
09/07/01	294			3.7	8.4		20.9	29.5	13.3
09/08/01	293			3.7	7.9		21.3	29.9	12.9
09/09/01	294			3.8	8.7		22.1	31.1	15.2
09/10/01	278			4.3	12.1		21.5	29.5	14.9
09/11/01	206			2.5	7.2		20.7	25.6	16.4
09/12/01	287			3.2	7.3		19.0	25.2	12.6
09/13/01	291			3.3	7.1		18.7	26.7	11.4
09/14/01	287			3.7	7.5		19.9	29.1	12.2
09/15/01	274			3.6	8.7		20.6	29.5	12.9
09/16/01	277			3.3	6.8		19.9	27.5	12.9
09/17/01	276			3.4	7.8		19.5	27.5	12.6
09/18/01	270			3.4	7.6		20.5	29.1	13.3
09/19/01	267			3.6	7.7		21.0	29.9	14.1
09/20/01	267			3.5	7.8		21.6	30.7	14.5
09/21/01	262			3.8	8.5		21.0	28.7	14.9
09/22/01	242			3.4	7.3		20.8	29.5	14.1
09/23/01	209			3.7	9.1		20.9	29.9	14.9
09/24/01	255			4.8	11.9		21.6	32.3	13.7
09/25/01	251			4.8	9.9		20.4	25.6	15.6
09/26/01	268			3.5	7.0		18.0	26.0	11.4
09/27/01	262			3.8	8.4		18.8	27.5	12.2
09/28/01	258			3.2	6.2		17.4	24.0	11.4
09/29/01	260			3.3	6.0		17.4	27.1	10.6
09/30/01	232			3.5	8.2		22.3	34.0	13.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Huntington Lake Solar Radiation (Watts/m 2)			Huntington Lake Wind Speed (mps)			Upstream of PH2 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	207			3.4	10.0		23.5	33.6	16.0
10/02/01	236			4.0	9.9		22.8	31.9	16.0
10/03/01	247			3.6	9.2		22.2	31.5	15.2
10/04/01	245			3.6	7.4		21.0	29.9	14.9
10/05/01	232			3.0	7.4		17.7	22.9	13.3
10/06/01	237			2.7	5.9		14.5	19.8	9.8
10/07/01	240			3.0	6.1		15.2	23.2	9.0
10/08/01	201			2.8	6.6		16.1	22.1	11.0
10/09/01	244			3.2	7.2		14.8	21.3	9.0
10/10/01	225			3.1	6.9		15.0	23.2	7.8
10/11/01	163			3.1	8.0		15.5	22.9	10.6
10/12/01	233			3.3	6.5		15.1	23.2	9.4
10/13/01	237			3.7	7.8		16.1	26.3	9.0
10/14/01	226			3.6	6.8		18.1	29.9	11.4
10/15/01							18.8	30.7	12.2
10/16/01							18.7	28.7	12.6
10/17/01							17.1	24.4	11.8
10/18/01							16.1	24.8	10.6
10/19/01							16.9	26.0	11.0
10/20/01							16.7	25.6	10.6
10/21/01							15.6	23.2	10.2
10/22/01							14.1	21.0	9.4
10/23/01							13.6	20.6	8.6
10/24/01							13.0	21.3	7.0
10/25/01							14.6	24.8	9.0
10/26/01							15.6	26.0	9.8
10/27/01							15.1	23.6	10.2
10/28/01							12.9	20.2	8.6
10/29/01							13.4	18.3	9.0
10/30/01							10.9	14.5	7.8
10/31/01							10.0	15.2	5.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	70	86	39						
05/02/01	61	92	35						
05/03/01	36	55	13						
05/04/01	37	67	23						
05/05/01	54	81	29						
05/06/01	59	86	34						
05/07/01	53	83	23						
05/08/01	42	72	17						
05/09/01	42	72	16						
05/10/01	45	71	18						
05/11/01	43	75	10						
05/12/01	57	75	34						
05/13/01	62	83	40						
05/14/01	59	78	36						
05/15/01	57	77	32						
05/16/01	66	82	50						
05/17/01	64	91	31						
05/18/01	58	76	33						
05/19/01	51	76	28						
05/20/01	46	69	20						
05/21/01	41	65	25						
05/22/01	45	74	19						
05/23/01	46	69	24						
05/24/01	46	71	19						
05/25/01	43	76	12						
05/26/01	38	68	14						
05/27/01	44	67	23						
05/28/01	51	74	29						
05/29/01	56	83	32						
05/30/01	47	77	20						
05/31/01	44	76	19						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	42	70	19						
06/02/01	38	68	13						
06/03/01	43	64	28						
06/04/01	49	79	25						
06/05/01	43	72	17						
06/06/01	46	72	27	18.6	26.7	10.6	53	82	29
06/07/01	44	68	22	20.4	29.1	12.6	53	83	23
06/08/01	33	58	15	20.4	29.1	12.6	45	74	18
06/09/01	37	61	21	19.2	27.1	11.8	45	70	21
06/10/01	37	64	17	18.9	26.0	12.6	45	73	23
06/11/01	42	65	24	18.0	25.2	11.0	48	73	24
06/12/01	51	72	27	17.3	22.9	11.0	57	81	36
06/13/01	42	66	19	17.0	24.8	9.4	47	79	11
06/14/01	37	68	13	18.2	26.3	10.2	44	74	19
06/15/01	34	61	14	20.3	29.1	11.8	42	70	15
06/16/01	31	57	15	21.1	29.5	12.9	43	69	20
06/17/01	30	56	12	21.6	29.9	14.1	40	68	17
06/18/01	27	48	10	21.1	29.9	12.9	38	63	13
06/19/01	27	50	10	21.6	29.9	13.7	39	65	14
06/20/01	32	58	14	22.3	30.7	13.7	41	69	19
06/21/01	32	57	16	23.7	32.3	16.0	42	68	17
06/22/01	34	62	15	H	H	H	H	H	H
06/23/01	32	60	12	H	H	H	H	H	H
06/24/01	29	58	11	H	H	H	H	H	H
06/25/01	31	52	20	18.9	24.8	11.8	36	61	21
06/26/01	40	56	28	19.8	24.4	15.2	42	57	30
06/27/01	42	68	20	19.8	25.2	14.5	45	68	25
06/28/01	44	65	27	19.8	27.1	12.6	48	71	24
06/29/01	46	67	25	21.5	29.1	13.7	51	79	23
06/30/01	40	67	19	22.8	31.5	14.5	45	75	20

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	36	63	17	24.2	32.8	15.6	40	66	17
07/02/01	34	59	18	26.1	34.9	17.1	39	67	18
07/03/01	35	58	17	27.1	35.7	19.8	40	60	17
07/04/01	40	63	22	25.2	29.9	22.1	50	64	33
07/05/01	41	67	23	25.4	32.3	19.0	49	73	28
07/06/01	78	96	46	20.7	22.9	18.7	81	97	54
07/07/01	85	104	54	19.3	22.9	17.5	94	100	69
07/08/01	64	92	35	21.3	27.9	15.2	73	97	45
07/09/01	53	81	31	22.2	29.5	16.4	59	83	34
07/10/01	53	75	31	22.4	28.3	16.0	52	76	34
07/11/01	51	79	25	21.6	27.5	16.8	52	79	27
07/12/01	51	73	33	20.6	27.5	13.3	52	76	28
07/13/01	42	63	24	21.3	29.1	14.1	49	77	20
07/14/01	39	68	17	20.9	27.9	14.1	44	74	19
07/15/01	38	58	23	20.0	27.1	12.9	41	65	21
07/16/01	50	66	35	18.7	24.0	12.2	51	74	32
07/17/01	54	74	35	18.9	24.4	12.2	54	78	36
07/18/01	50	77	26	19.5	26.0	12.6	52	81	29
07/19/01	44	69	22	19.9	26.7	12.6	47	76	23
07/20/01	45	69	28	20.1	26.7	13.3	47	72	25
07/21/01	45	72	24	19.9	26.7	12.9	47	76	26
07/22/01	41	66	21	20.1	27.9	12.6	44	74	22
07/23/01	38	64	20	20.9	27.9	12.9	42	71	23
07/24/01	39	62	20	22.3	29.9	13.7	43	73	23
07/25/01	43	62	24	23.5	31.1	16.0	46	70	20
07/26/01	43	70	22	24.8	32.3	17.5	47	74	24
07/27/01	27	49	10	25.2	34.4	16.8	35	64	10
07/28/01	23	43	8	24.3	33.2	16.0	29	52	11
07/29/01	25	44	12	23.0	31.1	15.2	30	52	15
07/30/01	41	59	27	21.0	26.7	14.1	41	64	23
07/31/01	50	75	29	21.2	28.7	13.7	52	80	28

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	42	67	23	22.4	30.3	14.5	44	72	23
08/02/01	38	62	20	24.0	31.9	16.4	41	68	16
08/03/01	39	64	21	23.3	29.9	16.4	42	69	24
08/04/01	38	61	20	22.0	29.9	14.5	39	66	10
08/05/01	35	54	20	21.9	31.5	12.6	38	60	16
08/06/01	30	46	17	24.5	33.6	16.0	35	53	11
08/07/01	35	56	20	26.4	34.4	19.0	38	59	19
08/08/01	33	56	15	26.7	34.4	19.8	38	62	16
08/09/01	32	55	16	25.5	33.2	18.3	37	63	19
08/10/01	37	59	20	24.8	32.3	17.9	39	60	22
08/11/01	34	52	19	24.3	33.2	15.2	39	65	17
08/12/01	32	50	16	24.4	33.2	16.4	36	63	14
08/13/01	34	56	19	23.9	32.8	15.6	36	61	15
08/14/01	31	52	15	24.0	33.2	15.2	35	63	12
08/15/01	29	46	13	23.9	32.8	16.4	34	60	15
08/16/01	26	45	9	24.8	34.4	16.4	31	59	10
08/17/01	27	45	13	25.1	35.3	16.8	32	52	10
08/18/01	31	54	15	25.3	34.9	17.1	34	60	13
08/19/01	29	52	11	24.5	32.8	16.8	33	57	14
08/20/01	31	52	17	22.3	29.9	15.6	32	54	18
08/21/01	34	54	19	20.0	26.3	14.1	35	53	19
08/22/01	40	60	26	18.7	26.0	12.6	44	62	25
08/23/01	46	64	30	19.1	27.1	11.8	49	74	26
08/24/01	45	63	30	20.2	28.3	12.6	49	72	28
08/25/01	39	60	19	22.5	33.2	13.3	42	73	10
08/26/01	31	52	15	24.4	34.4	16.0	35	56	11
08/27/01	32	54	15	24.3	33.6	16.0	37	63	17
08/28/01	33	50	19	24.7	34.4	16.4	38	62	18
08/29/01	37	56	20	23.8	32.3	16.4	40	67	17
08/30/01	41	60	24	21.8	28.3	15.6	42	64	25
08/31/01	42	58	26	21.3	29.5	13.7	44	67	13

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	35	51	22	21.7	29.9	13.7	41	65	15
09/02/01	33	54	17	22.8	31.9	14.5	38	57	17
09/03/01	42	61	25	21.9	31.1	16.8	53	82	23
09/04/01	41	62	21	21.7	30.7	14.1	52	82	22
09/05/01	38	64	15	21.6	28.7	15.6	43	72	20
09/06/01	34	55	19	19.8	27.9	12.2	38	61	16
09/07/01	35	57	18	20.2	29.5	11.8	39	67	17
09/08/01	33	55	15	20.3	30.3	11.4	35	63	12
09/09/01	28	45	14	21.3	30.7	13.3	31	51	11
09/10/01	34	47	21	20.9	29.1	13.7	36	51	19
09/11/01	46	58	34	20.7	26.7	16.4	44	56	23
09/12/01	46	58	31	18.6	26.0	11.8	46	65	25
09/13/01	42	56	20	18.4	27.1	10.6	46	68	15
09/14/01	32	55	18	19.2	28.7	11.0	40	64	13
09/15/01	30	46	9	19.6	29.1	11.8	35	59	12
09/16/01	35	55	20	18.9	27.1	11.8	38	57	19
09/17/01	42	60	22	18.9	27.5	11.4	45	66	22
09/18/01	40	56	23	20.0	29.5	12.2	43	68	14
09/19/01	37	54	20	20.2	29.5	12.9	41	64	19
09/20/01	38	60	19	20.5	30.3	12.9	42	65	16
09/21/01	35	48	18	20.3	29.1	12.9	41	58	18
09/22/01	37	58	20	20.1	29.9	12.6	42	67	18
09/23/01	32	53	17	19.7	29.5	12.9	38	57	12
09/24/01	25	43	8	20.7	31.1	11.4	30	49	11
09/25/01	48	76	30	18.9	26.0	14.5	65	99	32
09/26/01	40	53	27	17.1	26.7	9.4	60	84	22
09/27/01	39	50	24	17.7	27.5	10.2	52	73	18
09/28/01	43	65	23	16.5	25.2	9.8	51	75	25
09/29/01	40	61	21	17.1	28.3	9.4	47	74	19
09/30/01	27	50	10	19.5	31.5	11.0	37	56	12

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Upstream of PH 2 Relative Humidity (%)			Upstream of Mammoth Pool Air Temperature (°C)			Upstream of Mammoth Pool Relative Humidity (%)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	28	49	11	19.3	32.3	13.7	49	78	10
10/02/01	31	43	14	20.2	31.1	12.6	47	70	13
10/03/01	35	55	15	20.5	30.7	12.6	42	63	16
10/04/01	39	56	17	19.9	29.5	13.3	46	66	18
10/05/01	45	56	30	17.8	25.2	12.9	49	65	29
10/06/01	56	67	42	14.6	21.7	9.0	58	74	31
10/07/01	51	64	32	14.7	23.2	7.8	57	78	26
10/08/01	52	65	33	15.6	22.5	9.8	56	72	31
10/09/01	55	73	30	14.4	22.5	8.6	60	83	28
10/10/01	48	71	20	14.1	23.6	6.6	52	75	22
10/11/01	44	62	23	14.3	22.9	8.2	50	70	27
10/12/01	49	64	28	14.4	24.0	7.0	51	74	24
10/13/01	41	58	19	14.5	26.3	6.2	48	68	17
10/14/01	29	45	8	16.4	27.9	8.2	34	56	9
10/15/01	28	49	8	17.0	29.1	9.4	32	53	8
10/16/01	28	46	10	16.9	27.5	9.8	31	44	11
10/17/01	34	50	17						
10/18/01	39	52	18						
10/19/01	39	52	17						
10/20/01	37	49	10						
10/21/01	38	53	22						
10/22/01	46	59	25						
10/23/01	54	69	33						
10/24/01	49	69	22						
10/25/01	39	51	13						
10/26/01	36	54	15						
10/27/01	37	53	19						
10/28/01	53	69	27						
10/29/01	51	68	29						
10/30/01	94	99	52						
10/31/01	89	104	62						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	17.0	25.5	8.6	71	101	39	232			1.0	3.5	
05/02/01	15.1	22.0	8.8	47	97	13	234			2.7	8.1	
05/03/01	14.8	22.7	9.6	27	58	12	247			4.5	13.3	
05/04/01	15.3	24.5	5.8	37	64	22	238			1.3	4.3	
05/05/01	16.2	26.3	6.5	55	88	29	240			0.9	3.2	
05/06/01	18.1	28.1	8.0	60	96	28	248			0.9	3.2	
05/07/01	20.4	31.3	10.2	56	97	23	249			0.6	2.5	
05/08/01	21.2	34.1	10.6	45	84	15	252			0.6	2.1	
05/09/01	20.9	32.6	10.5	41	72	16	245			0.7	2.4	
05/10/01	21.1	31.6	12.4	44	71	18	247			0.8	2.8	
05/11/01	21.2	32.2	12.0	44	82	12	242			0.7	2.4	
05/12/01	19.2	28.1	14.8	50	77	28	87			0.5	2.2	
05/13/01	17.9	25.7	10.5	62	94	35	212			0.7	2.8	
05/14/01	17.9	26.6	9.3	57	87	32	233			0.8	2.8	
05/15/01	18.9	26.6	11.1	57	84	31	180			0.7	2.7	
05/16/01	19.3	26.4	12.5	66	89	41	245			0.8	3.2	
05/17/01	19.2	28.2	11.1	65	98	33	261			0.7	3.1	
05/18/01	18.7	28.5	11.0	63	93	34	224			0.8	3.1	
05/19/01	20.5	31.0	9.6	53	90	19	253			0.6	2.3	
05/20/01	21.5	32.1	10.9	50	80	20	254			0.6	2.5	
05/21/01	24.3	32.5	15.4	42	74	24	266			0.8	2.3	
05/22/01	24.4	34.5	15.7	43	69	21	260			0.7	2.0	
05/23/01	24.0	34.0	15.9	46	71	25	262			0.6	2.5	
05/24/01	23.1	32.4	14.8	47	76	24	265			0.7	2.6	
05/25/01	22.0	31.0	13.5	43	75	19	267			0.7	2.8	
05/26/01	21.0	31.0	12.2	37	64	18	268			0.7	2.7	
05/27/01	19.9	28.3	12.5	41	62	26	260			0.9	2.8	
05/28/01	18.0	24.5	10.7	50	72	33	266			0.9	2.8	
05/29/01	19.4	28.7	10.4	57	87	32	268			0.7	2.4	
05/30/01	23.5	34.5	12.2	51	87	21	268			0.6	2.2	
05/31/01	25.0	36.0	14.6	45	75	19	273			0.6	2.1	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	23.9	34.0	15.5	41	71	20	257			0.6	1.9	
06/02/01	19.1	27.0	11.4	38	66	17	278			0.8	2.3	
06/03/01	16.7	24.6	8.0	40	60	26	280			1.0	2.9	
06/04/01	17.6	26.0	8.7	48	76	27	275			0.9	2.9	
06/05/01	18.9	28.0	10.3	44	76	20	271			0.8	2.5	
06/06/01	20.8	29.4	11.4	47	73	28	274			0.9	3.3	
06/07/01	22.9	32.8	13.5	46	73	22	277			0.7	2.7	
06/08/01	22.9	33.7	13.1	38	67	19	276			0.7	2.2	
06/09/01	21.4	30.5	12.6	37	59	22	276			0.8	2.7	
06/10/01	20.8	29.6	12.8	39	61	22	273			0.8	2.8	
06/11/01	19.6	28.2	10.9	43	64	23	251			0.9	2.8	
06/12/01	H	H	H	H	H	H	H			H	H	
06/13/01	H	H	H	H	H	H	H			H	H	
06/14/01	H	H	H	H	H	H	H			H	H	
06/15/01	H	H	H	H	H	H	H			H	H	
06/16/01	H	H	H	H	H	H	H			H	H	
06/17/01	H	H	H	H	H	H	H			H	H	
06/18/01	H	H	H	H	H	H	H			H	H	
06/19/01	H	H	H	H	H	H	H			H	H	
06/20/01	H	H	H	H	H	H	H			H	H	
06/21/01	H	H	H	H	H	H	H			H	H	
06/22/01	H	H	H	H	H	H	H			H	H	
06/23/01	25.1	34.8	16.3	34	58	17	262			0.7	2.2	
06/24/01	22.2	30.7	13.8	30	52	14	252			0.8	2.7	
06/25/01	20.6	29.0	11.4	31	58	20	262			0.9	3.2	
06/26/01	21.6	28.7	16.1	40	56	28	262			0.8	2.6	
06/27/01	21.8	29.2	15.0	43	66	23	266			0.9	2.7	
06/28/01	21.4	29.7	12.5	44	65	27	267			0.9	3.3	
06/29/01	23.4	32.6	13.8	46	74	26	267			0.9	2.8	
06/30/01	24.9	36.0	14.7	41	72	19	266			0.8	2.8	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	26.4	37.1	16.7	36	60	18	262			0.8	2.3	
07/02/01	28.0	39.0	17.7	36	63	18	248			0.9	4.6	
07/03/01	29.1	40.9	20.5	35	59	17	243			1.2	6.8	
07/04/01	27.3	34.0	21.4	46	98	24	132			0.7	5.3	
07/05/01	27.8	36.8	19.8	44	69	24	257			0.7	2.3	
07/06/01	21.4	23.9	18.7	84	101	46	41			0.1	1.2	
07/07/01	21.3	27.2	18.6	89	104	53	84			0.0	1.2	
07/08/01	M	M	M	M	M	M	M			M	M	
07/09/01	24.3	33.5	16.8	58	85	31	256			1.4	6.0	
07/10/01	23.9	32.4	16.2	51	73	31	237			0.9	2.7	
07/11/01	23.3	31.0	16.8	50	77	27	260			0.8	2.7	
07/12/01	21.9	30.0	13.5	49	67	29	246			0.9	3.2	
07/13/01	23.1	32.5	14.6	44	71	23	240			0.8	2.7	
07/14/01	22.8	32.2	13.9	39	66	18	261			0.8	2.5	
07/15/01	21.6	30.9	12.4	37	56	22	267			0.9	2.9	
07/16/01	20.1	27.3	12.4	49	77	33	260			0.9	2.9	
07/17/01	20.1	27.8	12.1	52	73	34	233			0.8	2.8	
07/18/01	21.3	29.7	12.9	50	82	27	254			0.8	2.8	
07/19/01	21.5	30.5	12.6	45	73	23	252			0.8	2.8	
07/20/01	21.5	30.1	12.7	45	70	26	252			0.8	2.7	
07/21/01	21.4	30.4	12.8	45	73	25	254			0.9	2.7	
07/22/01	21.7	31.7	12.4	42	68	21	257			0.8	2.7	
07/23/01	22.6	32.1	12.7	39	68	21	249			0.9	2.5	
07/24/01	24.1	34.0	14.4	40	66	21	249			1.0	3.0	
07/25/01	25.3	34.4	15.9	43	66	23	257			0.8	3.6	
07/26/01	26.5	36.6	18.0	44	75	22	241			0.8	3.1	
07/27/01	26.8	38.8	16.3	30	55	9	252			0.7	2.3	
07/28/01	26.1	37.4	15.8	24	45	9	251			0.8	2.1	
07/29/01	24.7	35.2	15.5	26	45	15	249			0.9	2.6	
07/30/01	22.0	29.9	13.8	40	66	24	239			1.0	2.9	
07/31/01	22.4	31.0	13.6	51	80	29	233			1.0	3.0	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	24.1	34.5	14.4	42	69	22	233			0.8	2.6	
08/02/01	25.8	36.3	16.7	37	59	17	234			0.7	2.5	
08/03/01	24.7	33.6	16.6	39	61	23	237			0.8	2.7	
08/04/01	23.2	33.3	14.1	38	67	17	242			0.8	2.7	
08/05/01	23.2	33.8	12.4	36	54	18	239			0.8	3.0	
08/06/01	26.3	37.1	16.5	30	47	15	227			0.8	3.1	
08/07/01	28.5	38.8	20.3	34	56	18	212			0.7	2.8	
08/08/01	28.3	38.9	19.8	35	60	17	212			0.7	2.6	
08/09/01	27.1	37.1	18.4	34	58	18	209			0.7	2.7	
08/10/01	26.0	35.2	17.8	37	60	22	207			0.8	3.2	
08/11/01	25.3	35.8	15.6	38	63	19	220			0.9	2.8	
08/12/01	25.8	36.8	16.7	35	63	15	222			0.8	2.7	
08/13/01	25.2	36.8	15.7	35	59	16	224			0.8	2.8	
08/14/01	25.3	36.9	15.5	32	57	13	221			0.7	2.8	
08/15/01	25.6	36.8	16.1	30	52	15	179			0.8	2.5	
08/16/01	26.5	38.3	16.4	28	51	10	211			0.8	2.6	
08/17/01	26.8	39.2	17.3	28	48	11	197			0.7	2.2	
08/18/01	26.9	39.0	17.0	31	55	13	197			0.6	2.4	
08/19/01	26.0	36.7	16.7	31	57	15	205			0.7	2.8	
08/20/01	23.5	33.5	15.3	31	53	18	216			0.8	2.7	
08/21/01	20.8	29.1	13.7	35	53	20	181			0.8	3.3	
08/22/01	19.5	28.4	12.4	44	61	26	137			0.8	2.9	
08/23/01	19.9	28.8	11.3	49	71	28	191			1.0	3.4	
08/24/01	21.3	30.7	12.4	50	81	28	191			0.9	3.5	
08/25/01	24.3	36.8	13.7	43	77	14	215			0.8	3.1	
08/26/01	26.2	38.5	16.1	33	56	13	204			0.7	2.5	
08/27/01	25.8	37.2	15.9	34	57	16	203			0.8	3.1	
08/28/01	25.9	36.5	16.7	37	59	18	196			0.9	3.8	
08/29/01	25.0	36.1	16.1	39	67	18	201			0.7	2.7	
08/30/01	22.6	31.1	15.2	41	65	24	193			0.9	3.3	
08/31/01	22.0	31.6	13.2	45	67	24	190			1.0	2.9	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	22.9	33.2	13.5	39	66	20	187			0.8	2.9	
09/02/01	24.2	35.4	14.4	35	55	18	180			0.7	2.7	
09/03/01	23.0	34.7	16.5	53	91	22	120			0.7	3.9	
09/04/01	23.2	34.9	13.6	53	88	21	166			0.8	2.6	
09/05/01	22.9	32.8	15.2	41	71	19	157			0.7	2.3	
09/06/01	20.9	30.9	12.4	36	64	18	171			1.0	3.1	
09/07/01	21.3	32.4	11.7	38	63	18	171			0.9	3.0	
09/08/01	21.5	33.2	11.4	35	62	14	170			0.7	2.9	
09/09/01	22.7	34.8	14.0	29	52	12	169			0.7	2.8	
09/10/01	22.3	32.7	13.4	34	51	18	150			0.7	2.6	
09/11/01	21.4	28.6	16.2	45	55	26	78			0.7	2.5	
09/12/01	19.5	29.1	11.4	46	68	27	156			0.8	2.7	
09/13/01	19.3	29.8	10.5	46	66	20	155			0.8	2.9	
09/14/01	20.3	32.2	10.5	39	66	17	160			0.7	2.8	
09/15/01	20.8	32.7	11.4	33	58	13	158			0.7	3.0	
09/16/01	20.0	30.8	11.3	37	60	19	149			0.7	2.6	
09/17/01	20.0	30.5	11.6	44	65	22	146			0.9	2.9	
09/18/01	21.1	32.3	12.1	43	71	17	144			0.7	3.0	
09/19/01	21.0	32.7	12.8	39	64	20	132			0.7	2.9	
09/20/01	21.7	33.7	13.0	41	67	17	125			0.6	2.6	
09/21/01	21.0	31.5	12.7	40	61	20	124			0.9	3.2	
09/22/01	21.1	33.0	12.5	43	71	19	117			0.7	3.3	
09/23/01	21.0	32.7	12.5	36	61	15	93			0.6	2.2	
09/24/01	21.9	34.4	11.3	28	50	10	105			0.7	2.5	
09/25/01	19.6	27.8	14.3	66	103	34	104			0.6	2.4	
09/26/01	17.6	27.9	9.5	56	84	27	108			0.6	3.1	
09/27/01	18.5	30.2	10.3	50	75	23	116			0.7	2.6	
09/28/01	17.1	26.6	9.6	47	78	28	118			0.8	3.1	
09/29/01	17.9	30.0	8.9	50	86	22	123			0.6	2.6	
09/30/01	21.3	35.9	11.0	35	62	11	124			0.4	2.1	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool Air Temperature (°C)			Mammoth Pool Relative Humidity (%)			Mammoth Pool Solar Radiation (Watts/m 2)			Mammoth Pool Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	22.0	36.4	13.6	38	59	12	107			0.6	4.9	
10/02/01	21.9	34.5	12.8	41	68	15	103			0.6	2.6	
10/03/01	21.8	34.3	12.4	41	70	16	94			0.6	2.4	
10/04/01	20.8	32.6	12.8	46	69	18	95			0.7	2.7	
10/05/01	17.9	25.7	12.1	50	69	32	96			1.0	3.6	
10/06/01	14.6	22.3	8.5	62	80	37	89			0.8	3.1	
10/07/01	15.3	25.0	7.5	61	89	30	93			0.8	3.4	
10/08/01	16.2	24.5	9.6	58	80	34	83			0.8	2.6	
10/09/01	14.9	24.1	7.7	60	87	29	86			0.8	3.2	
10/10/01	14.9	26.5	6.0	52	76	23	86			0.6	2.6	
10/11/01	15.1	25.5	8.3	51	78	26	79			0.6	2.6	
10/12/01	15.0	25.5	7.1	53	80	26	80			0.8	3.6	
10/13/01	15.6	28.0	6.1	50	77	20	72			0.6	2.8	
10/14/01	17.7	32.0	8.4	36	59	11	66			0.4	2.3	
10/15/01	18.3	32.2	9.1	33	58	9	65			0.4	2.0	
10/16/01	17.9	31.3	9.6	32	51	12	59			0.4	2.0	
10/17/01												
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10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	17.3	24.4	10.2	72	93	39	11.1	18.7	2.9
05/02/01	15.3	19.8	10.2	56	93	13	8.0	12.2	2.0
05/03/01	15.8	22.1	9.8	26	67	11	6.2	12.9	-2.0
05/04/01	14.7	24.0	5.8	46	72	19	7.5	16.0	-1.5
05/05/01	16.8	25.2	9.0	53	77	26	9.7	17.5	1.2
05/06/01	18.5	27.5	10.6	58	82	29	11.8	20.6	3.3
05/07/01	20.2	30.7	12.2	58	86	26	13.6	23.6	4.2
05/08/01	21.9	32.8	13.7	44	70	18	14.6	25.2	4.6
05/09/01	22.3	31.9	14.5	37	61	15	14.2	23.6	5.0
05/10/01	21.8	30.7	13.7	43	67	16	14.0	23.2	4.2
05/11/01	21.7	32.3	13.7	43	70	12	14.6	24.0	6.2
05/12/01	20.4	27.5	14.5	48	81	24	13.7	20.2	7.8
05/13/01	17.7	25.2	11.0	63	87	39	11.4	18.3	4.2
05/14/01	17.9	26.0	11.0	58	82	31	11.6	19.0	3.3
05/15/01	19.2	26.0	12.2	57	80	32	12.8	20.2	5.0
05/16/01	19.4	25.6	12.9	67	88	44	13.2	19.0	6.6
05/17/01	19.8	27.5	13.3	61	89	30	13.3	20.2	6.2
05/18/01	19.7	27.5	12.9	58	80	29	12.2	19.8	5.0
05/19/01	22.0	30.3	12.9	45	69	25	14.1	22.1	5.0
05/20/01	22.0	31.5	12.6	48	73	20	14.8	22.9	4.6
05/21/01	23.0	32.3	13.7	49	74	22	16.0	24.8	6.2
05/22/01	24.9	34.0	16.0	43	73	18	17.2	26.0	8.2
05/23/01	24.2	33.2	16.4	45	65	22	17.0	25.2	7.8
05/24/01	23.5	32.8	16.0	44	66	19	16.3	24.4	7.8
05/25/01	22.4	31.9	15.2	40	67	11	15.2	22.9	7.4
05/26/01	21.7	30.3	14.5	33	53	14	13.9	21.7	5.0
05/27/01	20.4	27.5	13.7	39	59	21	13.1	20.6	5.4
05/28/01	18.2	24.8	12.6	47	70	25	11.3	17.5	4.2
05/29/01	19.9	28.7	11.8	52	76	29	13.1	21.3	4.6
05/30/01	23.1	34.9	12.9	49	81	20	16.8	27.1	6.2
05/31/01	25.5	36.1	16.0	40	64	15	18.2	27.5	8.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	25.2	33.6	17.5	35	56	18	16.8	24.4	8.6
06/02/01	19.6	26.7	12.9	36	62	12	12.0	17.9	3.7
06/03/01	17.7	24.4	10.6	36	56	25	9.4	15.6	1.6
06/04/01	18.1	25.6	10.6	43	68	22	10.4	17.5	2.0
06/05/01	20.1	27.9	12.6	37	61	15	11.7	19.0	3.3
06/06/01	21.2	29.9	13.3	42	66	22	14.0	22.1	5.0
06/07/01	23.1	32.8	14.5	43	66	20	15.6	24.4	5.4
06/08/01	23.7	32.8	14.9	33	58	14	15.3	24.0	5.4
06/09/01	23.0	29.9	16.4	30	49	18	14.0	21.3	5.4
06/10/01	21.8	29.5	15.2	33	52	16	13.4	20.6	6.2
06/11/01	21.1	27.9	13.7	36	57	22	12.6	20.2	4.2
06/12/01	19.8	26.3	13.3	47	66	24	11.7	17.5	5.0
06/13/01	19.4	27.1	11.4	37	58	18	10.7	18.7	1.6
06/14/01	21.8	31.1	12.9	32	54	12	13.4	22.1	4.2
06/15/01	23.8	33.6	14.5	30	52	12	15.1	24.8	5.0
06/16/01	24.8	34.9	15.6	29	47	13	16.1	25.6	5.8
06/17/01	25.7	34.4	16.4	26	50	11	16.4	25.2	7.0
06/18/01	25.3	34.4	16.0	23	38	10	15.7	24.8	5.4
06/19/01	25.2	34.4	16.0	25	43	10	15.9	25.6	5.0
06/20/01	26.5	35.3	17.5	27	43	13	17.4	26.7	7.4
06/21/01	27.5	36.1	18.7	29	45	15	18.5	27.1	8.6
06/22/01	27.6	35.7	19.8	30	48	15	19.0	27.1	9.8
06/23/01	26.2	34.0	19.0	28	48	11	17.6	25.2	9.8
06/24/01	23.0	30.7	16.8	25	41	9	14.5	21.3	6.6
06/25/01	21.5	28.3	14.1	26	40	17	12.6	19.8	3.7
06/26/01	21.7	27.5	16.4	37	51	25	14.1	18.7	7.8
06/27/01	22.5	28.7	16.4	37	61	18	14.5	21.0	7.8
06/28/01	22.1	29.5	14.1	41	61	26	14.1	21.7	5.4
06/29/01	23.8	32.3	15.2	43	67	21	15.7	23.6	6.2
06/30/01	25.5	34.9	16.0	37	64	16	17.2	27.1	6.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	27.8	36.6	19.0	29	48	15	18.8	27.9	9.0
07/02/01	29.4	38.8	20.6	29	45	15	20.6	29.9	10.6
07/03/01	31.7	40.1	22.5	27	44	15	22.5	31.1	13.7
07/04/01	30.7	36.1	24.4	31	43	20	21.7	27.9	15.6
07/05/01	29.2	35.7	22.1	36	57	20	20.1	26.7	12.9
07/06/01	22.6	25.2	20.6	78	96	43	16.5	18.7	14.9
07/07/01	23.2	28.3	19.4	78	100	51	16.8	21.0	14.1
07/08/01	26.2	32.3	19.4	51	79	28	17.7	23.2	12.2
07/09/01	26.6	32.8	21.0	43	72	25	17.6	24.0	10.6
07/10/01	25.8	31.5	20.2	40	57	26	17.0	23.2	10.6
07/11/01	24.0	29.9	18.3	44	67	21	15.7	21.3	8.6
07/12/01	22.7	29.5	15.6	44	62	28	14.2	22.1	6.2
07/13/01	23.7	31.9	15.6	41	66	22	14.9	23.2	5.4
07/14/01	23.9	31.5	16.4	33	57	14	14.9	22.5	7.0
07/15/01	23.2	29.5	15.6	31	50	18	13.9	21.3	5.4
07/16/01	20.8	26.3	14.5	45	61	31	12.5	18.3	5.4
07/17/01	20.9	27.5	14.1	48	69	31	12.8	19.0	5.8
07/18/01	21.9	29.1	14.5	45	71	23	13.4	20.2	5.8
07/19/01	22.6	29.9	15.2	39	62	19	13.9	21.0	5.8
07/20/01	22.9	29.5	15.6	38	58	24	13.9	21.3	5.8
07/21/01	22.5	29.5	16.0	38	59	22	13.9	21.0	6.2
07/22/01	22.9	30.7	15.2	35	57	19	14.0	22.1	5.4
07/23/01	24.1	31.5	16.0	32	53	18	14.9	22.9	5.8
07/24/01	25.5	33.2	17.5	33	51	18	16.6	24.8	7.4
07/25/01	26.4	33.6	18.3	38	57	20	17.7	24.8	8.6
07/26/01	27.5	35.3	20.2	38	61	19	18.6	26.7	10.2
07/27/01	28.6	37.9	19.0	24	45	9	18.8	28.7	8.2
07/28/01	28.7	37.0	21.7	17	30	8	18.6	28.3	9.0
07/29/01	27.1	34.0	19.4	19	31	11	17.2	25.6	8.6
07/30/01	23.3	29.1	16.8	35	61	23	14.6	21.0	7.4
07/31/01	23.1	30.3	16.0	47	71	26	15.1	23.2	7.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	24.8	33.6	16.4	39	60	20	16.6	25.2	8.2
08/02/01	26.9	34.9	19.4	33	51	18	18.1	26.7	9.0
08/03/01	25.6	32.3	19.0	34	54	18	17.2	24.0	10.2
08/04/01	24.6	31.9	17.5	33	51	19	15.7	24.0	7.0
08/05/01	24.4	33.2	15.6	33	49	15	16.0	26.0	5.4
08/06/01	26.4	35.3	17.1	29	44	14	18.6	28.3	8.6
08/07/01	28.5	37.4	19.4	33	53	18	20.6	30.3	12.2
08/08/01	29.2	37.4	21.7	31	51	14	20.7	28.3	12.9
08/09/01	28.4	35.7	21.0	28	43	16	19.7	27.1	12.2
08/10/01	26.9	34.0	20.6	32	47	20	18.6	26.7	11.0
08/11/01	26.3	34.0	18.3	32	50	18	18.3	27.5	9.0
08/12/01	26.4	34.9	18.3	31	51	15	18.4	27.1	9.8
08/13/01	25.8	34.0	18.3	32	48	18	18.1	26.7	9.4
08/14/01	26.0	35.7	17.1	30	51	14	18.0	27.1	9.0
08/15/01	26.4	35.3	18.7	27	42	14	18.2	27.5	9.0
08/16/01	28.0	37.9	19.4	23	38	9	19.0	29.1	9.4
08/17/01	29.4	37.4	22.9	21	35	12	19.6	29.1	10.6
08/18/01	28.9	37.4	22.5	24	37	13	19.8	29.5	11.0
08/19/01	27.8	35.7	20.6	24	40	11	19.0	27.5	10.6
08/20/01	25.1	32.3	19.0	26	38	15	16.4	24.0	9.4
08/21/01	22.6	28.3	16.4	29	44	18	14.0	20.6	7.0
08/22/01	21.4	27.9	15.2	37	54	24	13.1	20.6	5.8
08/23/01	21.3	28.3	14.9	43	61	25	13.1	21.3	5.0
08/24/01	22.2	29.9	14.9	44	65	27	14.2	22.5	5.4
08/25/01	24.9	34.9	16.0	39	64	18	17.3	27.9	6.6
08/26/01	28.1	36.6	20.2	25	44	15	19.3	29.1	10.2
08/27/01	27.2	36.1	19.4	29	43	15	19.0	28.3	9.8
08/28/01	27.5	35.3	20.2	30	44	17	19.1	27.9	10.6
08/29/01	26.6	34.4	19.4	33	50	18	18.0	26.3	9.8
08/30/01	23.6	29.9	17.5	37	54	21	15.7	22.9	9.4
08/31/01	22.8	30.3	15.6	42	58	26	15.3	24.4	7.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	24.4	32.8	16.8	35	57	19	15.7	25.2	7.0
09/02/01	26.3	34.0	19.0	29	45	15	17.3	26.0	8.6
09/03/01	26.2	32.8	19.8	38	56	22	17.6	24.8	10.6
09/04/01	26.2	33.6	19.4	36	57	20	17.2	26.0	9.4
09/05/01	25.6	31.9	18.7	31	47	16	16.0	23.6	9.0
09/06/01	23.1	29.5	17.9	28	43	17	14.1	22.1	6.2
09/07/01	23.1	31.1	16.0	31	50	16	14.8	24.0	6.2
09/08/01	23.5	32.3	15.6	28	48	14	15.4	25.2	6.2
09/09/01	25.2	32.8	18.7	24	38	12	16.0	25.2	7.8
09/10/01	23.7	31.1	17.1	31	48	19	16.0	22.9	8.6
09/11/01	22.4	28.7	17.1	44	59	29	15.5	22.1	8.6
09/12/01	20.7	27.5	12.9	45	64	29	12.8	20.2	5.4
09/13/01	21.0	28.3	13.7	41	60	19	12.3	21.3	3.7
09/14/01	22.2	31.1	14.5	33	56	15	13.2	23.6	3.3
09/15/01	23.4	31.9	16.8	26	43	10	14.0	23.6	5.0
09/16/01	22.6	29.9	16.0	29	44	16	13.2	21.3	5.4
09/17/01	22.1	29.5	16.0	36	54	20	13.4	22.1	5.0
09/18/01	22.8	31.5	15.2	38	55	20	14.5	24.0	5.4
09/19/01	23.0	31.5	15.2	34	51	19	14.8	23.6	6.6
09/20/01	23.7	32.8	16.4	34	51	16	15.6	25.2	7.4
09/21/01	23.1	30.3	15.6	32	47	15	14.9	24.0	7.0
09/22/01	23.0	31.9	16.0	35	53	18	15.0	25.2	7.0
09/23/01	22.9	31.9	16.0	29	43	15	14.8	24.4	7.4
09/24/01	25.2	34.4	17.1	20	36	8	15.8	26.3	6.6
09/25/01	22.0	27.5	16.4	47	78	32	16.1	21.0	7.0
09/26/01	19.7	27.1	13.3	45	65	23	12.4	22.9	4.2
09/27/01	20.2	29.1	12.2	41	57	20	13.1	22.1	5.4
09/28/01	19.6	26.0	14.1	38	54	22	11.5	20.2	4.6
09/29/01	19.1	28.3	10.6	41	65	21	13.2	24.8	3.7
09/30/01	26.3	36.1	19.4	18	31	8	16.8	27.1	7.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Mammoth Pool PH Air Temperature (°C)			Mammoth Pool PH Relative Humidity (%)			Eastwood Tailrace Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	27.6	35.7	21.0	20	31	10	17.5	27.9	9.0
10/02/01	25.4	33.6	18.7	27	46	13	16.6	26.3	8.6
10/03/01	24.4	33.6	17.1	31	47	15	16.2	25.6	8.6
10/04/01	23.6	31.9	17.1	35	54	16	14.9	24.4	7.8
10/05/01	19.2	24.4	13.7	44	59	28	12.3	19.8	5.4
10/06/01	16.1	22.1	10.6	55	75	36	9.3	16.4	2.9
10/07/01	16.8	24.8	9.4	54	76	32	9.8	18.7	2.0
10/08/01	17.7	24.4	11.0	51	70	32	10.1	17.9	3.3
10/09/01	16.9	23.6	10.6	52	76	27	8.8	17.1	1.6
10/10/01	17.2	26.0	9.4	43	68	16	9.3	18.3	0.7
10/11/01	17.7	24.8	12.2	39	56	21	9.2	18.3	2.9
10/12/01	17.2	25.6	10.2	44	63	24	10.0	19.4	2.5
10/13/01	18.8	28.7	11.8	36	63	15	11.1	22.5	2.5
10/14/01	20.4	32.3	10.6	27	58	8	12.7	24.0	4.2
10/15/01	22.0	33.2	14.1	21	36	7	12.9	24.0	5.0
10/16/01	22.5	31.5	16.4	20	35	9	13.1	23.2	5.8
10/17/01	19.8	27.1	13.7	30	54	14	11.4	19.8	5.0
10/18/01	18.4	27.1	12.2	39	60	17	11.0	21.7	3.3
10/19/01	20.2	27.9	13.3	34	61	15	11.7	21.7	3.7
10/20/01	19.1	27.9	12.2	35	51	14	11.0	21.0	3.3
10/21/01	18.6	26.3	12.6	34	51	20	10.1	19.0	3.7
10/22/01	16.5	23.6	11.4	41	64	22	8.5	17.1	1.6
10/23/01	15.3	22.5	9.4	52	73	29	8.6	17.5	2.9
10/24/01	14.9	23.2	7.4	51	73	21	9.1	19.4	0.7
10/25/01	17.7	27.1	10.6	33	52	12	9.7	20.2	2.0
10/26/01	19.4	28.7	13.7	24	38	12	10.4	21.3	3.3
10/27/01	18.3	26.7	12.2	29	51	16			
10/28/01	15.2	22.1	10.2	49	73	27			
10/29/01	14.8	19.8	9.4	54	70	32			
10/30/01	12.9	18.3	10.6	89	99	33			
10/31/01	12.7	18.3	7.0	78	98	50			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Eastwood Tailrace Relative Humidity (%)			Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	80	99	43	14.3	19.8	8.6	74	89	44	20.7	27.5	14.3
05/02/01	73	98	38	10.9	14.9	6.2	67	93	36	17.3	23.5	11.0
05/03/01	50	86	19	9.2	16.8	0.7	41	67	17	19.2	25.0	14.0
05/04/01	63	89	32	11.5	18.7	4.6	50	69	26	19.2	26.9	12.1
05/05/01	71	98	35	13.5	20.6	7.0	57	78	35	20.8	28.5	15.0
05/06/01	75	100	44	15.4	22.9	9.0	63	82	39	22.9	30.4	17.5
05/07/01	66	98	23	17.6	26.0	10.6	54	74	25	24.9	34.0	18.7
05/08/01	57	88	15	19.2	27.9	11.8	43	61	16	27.0	36.0	19.5
05/09/01	58	87	20	18.9	27.1	11.4	42	62	18	27.1	34.8	19.1
05/10/01	61	92	18	18.5	26.3	11.4	46	68	18	26.4	34.1	18.7
05/11/01	56	91	10	19.4	28.7	12.6	43	69	9	27.4	36.0	21.2
05/12/01	67	92	34	16.6	21.7	12.6	58	76	40	24.6	29.2	19.3
05/13/01	77	98	41	14.5	20.2	9.4	67	82	49	21.6	28.1	16.2
05/14/01	75	97	39	14.6	20.6	9.8	65	81	42	22.0	29.0	17.0
05/15/01	72	96	33	15.8	21.3	11.4	63	80	36	22.6	29.8	17.7
05/16/01	81	98	50	16.0	20.6	11.8	73	86	59	21.2	28.0	14.9
05/17/01	78	99	45	16.3	22.9	11.0	69	90	39	23.7	31.5	18.0
05/18/01	76	97	49	16.1	22.9	11.0	63	80	40	24.0	30.4	19.1
05/19/01	65	93	21	18.1	26.3	11.4	54	73	31	25.7	33.8	19.3
05/20/01	61	91	21	19.1	26.7	11.4	50	70	20	27.2	34.9	19.6
05/21/01	63	91	33	20.4	28.3	12.6	51	71	29	27.0	35.5	14.9
05/22/01	62	94	28	21.4	29.1	14.5	49	71	24	30.0	37.1	23.5
05/23/01	61	86	27	21.3	28.7	15.2	48	64	27	29.4	36.0	23.7
05/24/01	60	89	25	20.5	27.5	15.2	49	69	25	28.7	35.9	23.1
05/25/01	58	92	19	19.3	26.3	13.3	45	69	15	27.6	35.1	21.4
05/26/01	50	76	21	18.4	26.0	12.6	39	58	17	26.4	34.4	19.8
05/27/01	55	77	23	17.1	23.2	12.2	47	64	29	24.4	30.5	16.9
05/28/01	63	92	22	14.4	20.2	9.4	57	78	34	20.5	27.8	12.0
05/29/01	72	98	46	16.1	23.2	9.4	61	81	39	22.9	31.0	16.7
05/30/01	58	88	23	20.6	29.9	13.3	50	69	21	27.2	37.6	18.5
05/31/01	57	82	24	22.8	31.1	15.6	43	61	21	30.8	38.8	24.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Eastwood Tailrace Relative Humidity (%)			Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	55	75	28	21.5	30.3	14.9	42	59	22	30.2	37.0	23.1
06/02/01	56	82	21	16.1	22.9	10.2	44	75	16	23.4	30.0	15.7
06/03/01	62	87	31	13.0	19.4	7.8	49	66	35	20.9	27.2	15.1
06/04/01	68	98	37	13.9	21.0	7.8	55	81	30	21.6	29.2	14.8
06/05/01	61	92	28	15.6	22.9	9.0	48	73	20	23.7	31.2	16.6
06/06/01	64	92	28	17.5	24.8	11.0	53	76	31	25.0	33.8	18.2
06/07/01	60	94	21	19.7	27.9	12.9	49	71	25	27.4	36.2	20.3
06/08/01	49	79	16	20.1	28.3	13.7	39	57	18	28.7	36.3	21.9
06/09/01	56	77	31	18.3	24.8	12.2	42	58	25	26.5	32.7	20.8
06/10/01	56	81	30	17.7	24.8	12.6	43	66	22	H	H	H
06/11/01	61	87	31	16.4	23.6	10.2	50	68	30	H	H	H
06/12/01	70	94	39	15.2	21.3	10.2	60	79	35	H	H	H
06/13/01	60	86	31	15.0	22.5	9.4	49	74	25	H	H	H
06/14/01	56	92	20	17.9	26.7	11.0	43	72	16	H	H	H
06/15/01	51	81	21	19.9	28.7	12.6	39	62	16	H	H	H
06/16/01	50	79	22	21.1	29.5	14.1	37	57	16	H	H	H
06/17/01	47	77	18	21.7	30.3	14.9	34	56	15	H	H	H
06/18/01	43	64	16	20.9	29.5	13.7	31	48	12	H	H	H
06/19/01	43	63	18	21.2	30.3	13.3	31	46	14	H	H	H
06/20/01	49	74	22	22.4	30.7	15.6	36	52	17	H	H	H
06/21/01	49	72	19	23.4	31.5	16.4	38	54	20	H	H	H
06/22/01	50	80	19	23.6	31.9	17.5	39	60	19	H	H	H
06/23/01	50	78	21	H	H	H	H	H	H	H	H	H
06/24/01	48	76	18	H	H	H	H	H	H	26.7	32.9	20.9
06/25/01	51	72	29	H	H	H	H	H	H	25.0	30.9	19.4
06/26/01	60	81	36	17.3	22.9	13.3	50	68	34	24.4	30.1	19.4
06/27/01	59	90	31	17.6	24.0	12.9	49	72	23	25.0	31.1	18.2
06/28/01	67	88	38	17.7	24.4	11.4	53	70	33	25.3	32.0	19.1
06/29/01	68	94	37	19.6	26.7	12.9	54	74	30	27.2	35.0	20.3
06/30/01	59	94	27	21.7	30.3	14.5	46	74	21	29.6	37.9	22.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Eastwood Tailrace Relative Humidity (%)			Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	56	86	26	23.4	31.9	16.8	42	65	20	31.4	39.3	24.4
07/02/01	50	76	24	25.1	33.2	18.3	38	57	20	33.3	40.2	26.1
07/03/01	52	73	26	27.2	36.1	21.0	38	55	18	35.8	42.4	28.6
07/04/01	56	79	32	25.6	31.5	21.0	44	59	27	34.6	39.5	29.5
07/05/01	60	89	35	24.5	31.9	19.4	47	68	26	33.0	39.0	27.0
07/06/01	88	100	64	18.4	21.7	16.0	86	99	57	27.1	30.6	22.5
07/07/01	89	101	66	18.4	22.9	15.6	89	100	63	26.6	32.4	21.2
07/08/01	81	101	47	20.4	26.7	14.9	72	95	39	29.6	34.9	24.2
07/09/01	75	100	48	21.1	28.3	15.6	62	85	38	29.9	35.0	24.2
07/10/01	76	98	44	20.4	26.3	15.6	61	83	36	28.6	34.0	23.7
07/11/01	74	99	39	19.1	25.2	14.5	60	84	30	26.7	32.2	21.1
07/12/01	75	98	44	18.0	24.4	12.9	60	77	42	25.8	31.5	20.1
07/13/01	67	95	31	19.2	27.1	12.2	53	77	30	27.5	34.5	20.8
07/14/01	61	94	25	19.6	27.1	13.3	46	73	20	27.8	34.7	21.4
07/15/01	61	87	33	18.3	25.2	12.6	46	65	27	26.2	31.6	20.3
07/16/01	73	95	52	16.0	21.3	11.4	60	76	42	23.6	28.4	19.1
07/17/01	76	97	53	16.0	22.1	11.0	64	83	41	24.0	29.6	18.2
07/18/01	73	98	40	17.2	24.8	11.0	58	84	31	25.5	31.6	19.0
07/19/01	66	95	35	18.1	25.2	11.8	51	75	26	26.3	32.6	20.2
07/20/01	69	95	41	17.9	24.4	12.2	53	73	32	25.9	31.5	20.5
07/21/01	68	98	38	17.7	24.8	11.8	53	78	30	25.6	31.7	19.5
07/22/01	64	95	32	18.4	26.0	12.6	49	74	25	26.4	33.5	19.5
07/23/01	60	91	31	19.4	26.7	12.6	45	68	23	27.5	34.3	20.2
07/24/01	60	89	29	21.0	29.1	14.1	46	67	23	28.8	35.8	21.2
07/25/01	65	91	37	22.1	28.7	15.6	50	69	30	29.9	35.9	23.7
07/26/01	64	93	32	23.3	30.3	17.1	49	72	25	30.8	37.5	25.0
07/27/01	42	73	11	24.4	33.6	16.8	32	57	11	32.9	41.2	25.5
07/28/01	37	60	12	24.1	32.3	17.1	27	45	10	32.2	39.9	25.8
07/29/01	41	60	20	22.2	30.3	16.4	30	47	14	30.3	36.8	24.3
07/30/01	61	91	37	18.3	24.0	13.3	49	74	31	25.8	31.5	20.0
07/31/01	72	98	42	18.3	25.6	12.2	59	82	35	26.1	32.7	19.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Eastwood Tailrace Relative Humidity (%)			Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	61	90	31	20.7	28.7	13.7	50	74	27	28.5	36.0	21.6
08/02/01	57	85	29	22.4	30.3	16.0	44	66	24	30.0	37.1	23.7
08/03/01	59	85	31	21.4	27.5	16.0	45	68	25	29.1	35.3	24.2
08/04/01	59	88	29	19.7	27.5	13.7	46	70	25	27.7	34.4	21.8
08/05/01	53	80	23	20.2	28.3	13.3	44	64	26	27.9	35.4	20.4
08/06/01	47	66	26	22.9	30.7	16.4	39	55	19	29.5	37.4	23.3
08/07/01	52	76	24	25.0	32.8	19.0	41	61	22	31.9	39.9	23.7
08/08/01	50	76	23	25.5	33.6	19.0	39	60	18	33.3	39.4	27.4
08/09/01	50	72	26	24.2	31.5	18.3	38	56	21	32.2	38.0	27.0
08/10/01	55	79	30	22.8	29.1	17.9	43	60	25	30.2	36.3	25.0
08/11/01	54	78	26	22.4	29.5	16.8	43	61	23	29.5	36.1	23.1
08/12/01	51	77	24	22.8	30.7	17.1	40	61	19	30.0	36.5	23.7
08/13/01	50	77	22	22.1	29.5	15.6	41	60	25	29.0	35.5	23.7
08/14/01	44	65	12	22.4	30.7	15.2	38	56	19	29.4	37.2	21.4
08/15/01	43	58	20	22.7	30.7	16.4	35	51	17	30.2	38.2	23.6
08/16/01	40	66	11	24.0	32.8	16.8	32	54	11	31.9	40.0	24.6
08/17/01	41	58	14	24.6	33.2	17.9	32	47	15	32.7	39.1	27.1
08/18/01	46	72	19	24.6	33.2	18.7	35	55	18	32.4	39.7	26.0
08/19/01	46	73	17	23.5	31.1	18.3	35	56	13	31.5	38.3	25.5
08/20/01	48	72	24	20.8	28.3	15.6	37	59	21	28.4	34.5	23.2
08/21/01	53	76	28	17.7	22.5	13.3	42	60	24	25.3	30.5	20.1
08/22/01	61	81	38	17.0	23.2	11.4	49	64	32	24.2	31.1	18.0
08/23/01	66	92	33	16.9	23.2	11.8	55	73	37	24.4	30.6	18.4
08/24/01	66	92	36	18.1	25.2	12.9	55	74	35	25.6	33.2	19.1
08/25/01	54	89	18	21.3	29.9	14.5	46	71	23	27.8	36.8	21.3
08/26/01	44	66	17	23.7	32.3	17.5	36	52	19	30.7	39.2	23.6
08/27/01	47	71	21	23.5	31.5	17.5	38	55	19	31.2	38.6	24.9
08/28/01	51	73	27	23.3	30.7	17.9	40	56	23	31.0	38.0	24.6
08/29/01	56	82	28	22.5	30.3	16.8	44	64	22	30.2	36.3	25.0
08/30/01	61	83	34	19.3	25.2	14.9	49	68	28	25.2	31.7	17.9
08/31/01	59	78	26	18.7	26.0	13.3	51	67	35	25.6	32.6	19.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Eastwood Tailrace Relative Humidity (%)			Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	51	76	20	19.9	27.5	14.5	44	62	25	27.7	35.4	20.6
09/02/01	50	73	27	21.6	29.5	16.0	40	57	21	29.7	36.9	23.3
09/03/01	60	82	34	21.6	28.3	17.1	47	65	30	29.8	34.9	24.8
09/04/01	59	86	29	21.5	29.5	16.0	46	67	25	30.1	36.8	23.5
09/05/01	56	88	24	20.5	27.9	15.6	44	67	18	28.8	34.9	23.5
09/06/01	53	78	29	18.1	24.4	12.6	42	61	24	25.8	32.1	20.4
09/07/01	53	81	27	18.8	26.3	13.3	42	65	21	26.3	33.9	19.7
09/08/01	49	75	20	19.5	27.5	12.9	39	61	19	27.1	34.7	19.7
09/09/01	40	58	15	20.5	28.7	15.2	34	48	16	27.3	33.9	22.0
09/10/01	47	67	30	19.5	26.7	14.9	43	58	25	24.9	32.3	16.7
09/11/01	56	70	29	17.9	24.8	14.1	56	66	24	24.5	30.2	20.0
09/12/01	61	83	31	16.1	22.1	11.0	57	71	41	23.7	30.3	17.5
09/13/01	63	83	30	16.3	23.6	10.6	54	68	28	24.4	31.2	18.5
09/14/01	46	77	18	17.6	27.1	11.8	42	64	20	25.7	33.7	18.6
09/15/01	46	69	19	18.6	26.7	12.6	38	58	15	26.9	34.7	20.3
09/16/01	54	74	29	17.9	25.2	12.6	43	59	23	26.4	32.9	21.0
09/17/01	61	83	33	17.3	24.0	12.2	49	64	28	25.2	32.0	19.7
09/18/01	55	82	20	18.6	26.3	13.3	47	66	27	25.9	33.8	19.8
09/19/01	53	70	30	19.0	26.7	13.7	44	59	25	27.0	34.0	21.6
09/20/01	54	78	27	19.7	27.9	14.1	44	63	21	27.7	35.2	21.7
09/21/01	51	76	22	19.0	25.6	14.5	44	62	21	26.8	32.8	21.6
09/22/01	54	81	29	19.1	26.3	13.3	45	65	25	26.7	33.3	21.0
09/23/01	46	64	19	19.3	26.7	13.7	39	57	20	27.1	33.5	22.1
09/24/01	36	55	15	20.5	28.7	14.1	30	46	9	28.1	36.5	22.1
09/25/01	57	80	44	17.7	22.1	13.3	55	74	41	23.6	29.5	17.8
09/26/01	57	77	32	15.8	22.1	11.0	53	67	35	22.4	29.4	16.9
09/27/01	54	75	27	16.6	23.6	11.0	51	65	31	23.3	31.0	16.4
09/28/01	64	91	35	15.1	21.0	11.0	54	75	33	22.6	29.1	18.3
09/29/01	55	82	26	16.2	23.2	10.6	47	68	27	22.3	30.8	15.3
09/30/01	36	58	14	21.8	31.9	15.2	31	46	11	31.0	38.7	23.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Eastwood Tailrace Relative Humidity (%)			Stevenson Creek Air Temperature (°C)			Stevenson Creek Relative Humidity (%)			Powerhouse 3 Air Temperature (°C)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	38	58	12	22.3	30.7	16.8	32	45	13	31.0	37.4	26.3
10/02/01	42	56	16	21.0	29.1	16.0	37	50	16	29.1	36.4	23.8
10/03/01	49	70	20	20.5	28.7	15.2	41	57	17	29.0	36.5	23.7
10/04/01	55	73	18	19.1	27.1	14.1	46	60	22	27.3	33.4	22.9
10/05/01	62	81	27	15.3	19.8	10.2	56	68	38	22.0	27.5	16.1
10/06/01	76	92	52	11.6	16.0	7.8	69	80	52	18.9	24.5	14.2
10/07/01	69	88	35	12.8	19.8	7.4	63	79	42	19.6	27.4	12.8
10/08/01	70	92	40	13.3	19.4	8.2	63	79	43	20.8	27.5	14.9
10/09/01	78	98	40	12.0	17.9	7.8	68	84	39	20.3	25.8	15.8
10/10/01	69	97	33	12.8	21.0	7.4	59	84	23	20.6	28.3	14.2
10/11/01	63	88	21	13.7	20.2	9.4	52	70	27	21.3	27.8	16.7
10/12/01	68	91	36	13.1	19.8	8.2	57	73	35	20.6	27.6	15.1
10/13/01	58	82	26	14.8	22.9	9.4	49	65	23	22.0	30.7	15.5
10/14/01	39	60	12	17.3	27.5	11.8	35	52	10	23.7	33.8	14.5
10/15/01	37	56	11	17.9	27.5	12.6	31	45	9	26.1	34.9	19.5
10/16/01	37	57	14	17.7	25.2	13.3	31	42	12	26.1	32.9	21.4
10/17/01	48	76	23	15.2	21.3	11.0	42	62	20	22.8	28.2	18.0
10/18/01	51	72	17	14.3	21.7	10.6	49	62	22	21.7	28.6	16.9
10/19/01	52	74	19	15.7	22.9	11.4	46	60	19	22.7	30.0	17.8
10/20/01	48	67	14	15.1	22.9	11.0	45	56	13	22.2	29.5	16.2
10/21/01	52	72	33	13.9	20.6	9.8	45	60	26	21.7	28.3	16.9
10/22/01	62	83	26	12.1	18.3	8.6	56	72	31	19.4	25.5	14.6
10/23/01	72	94	36	11.4	17.1	7.8	65	80	42	18.1	25.1	12.8
10/24/01	58	93	23	11.7	17.9	6.2	57	80	35	17.7	24.5	12.1
10/25/01	48	66	19	14.1	22.9	9.8	42	57	18	19.1	28.3	9.5
10/26/01	46	64	18	14.9	22.9	10.6	39	52	16	23.4	30.6	19.1
10/27/01				14.0	20.6	9.8	42	59	22	21.7	28.8	16.5
10/28/01				11.2	17.1	7.8	60	76	31	17.2	23.0	11.2
10/29/01				12.2	16.0	8.2	55	70	34	16.3	21.7	11.5
10/30/01				9.4	14.1	6.2	95	100	49	16.0	21.3	13.0
10/31/01										15.0	20.5	11.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	64	97	42	327			5.6	14.4	
05/02/01	60	104	14	294			5.5	25.1	
05/03/01	25	62	14	346			10.0	27.4	
05/04/01	35	67	20	338			6.1	16.0	
05/05/01	42	72	26	330			6.5	18.1	
05/06/01	46	82	30	332			6.7	17.2	
05/07/01	43	78	24	332			6.4	14.8	
05/08/01	32	68	18	342			7.7	17.9	
05/09/01	29	66	16	342			8.3	22.4	
05/10/01	33	69	20	342			7.5	19.7	
05/11/01	30	53	11	340			8.3	22.8	
05/12/01	41	83	21	125			8.4	26.8	
05/13/01	50	70	32	304			5.9	12.5	
05/14/01	46	62	26	322			6.3	14.1	
05/15/01	48	78	28	282			4.9	12.6	
05/16/01	67	92	42	296			3.2	11.3	
05/17/01	50	72	26	336			6.1	15.4	
05/18/01	45	60	27	292			7.1	16.0	
05/19/01	38	56	23	335			6.9	15.2	
05/20/01	36	59	21	340			7.1	15.1	
05/21/01	40	77	20	342			5.5	14.9	
05/22/01	30	45	19	344			7.9	20.4	
05/23/01	32	41	21	342			7.2	15.6	
05/24/01	31	42	16	344			7.2	16.0	
05/25/01	28	46	11	348			7.4	16.6	
05/26/01	24	41	12	343			7.9	17.6	
05/27/01	31	57	19	339			7.6	19.4	
05/28/01	45	78	24	345			4.8	11.6	
05/29/01	44	63	27	347			5.5	12.8	
05/30/01	39	63	19	345			4.4	13.7	
05/31/01	27	44	17	344			6.6	15.7	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	26	35	16	320			8.7	18.9	
06/02/01	29	58	12	357			5.7	12.3	
06/03/01	31	39	22	355			7.9	17.2	
06/04/01	34	51	21	352			6.7	13.5	
06/05/01	29	43	16	352			7.4	15.3	
06/06/01	34	49	22	354			6.5	14.8	
06/07/01	34	49	19	355			6.4	13.9	
06/08/01	25	37	13	356			7.4	15.2	
06/09/01	26	34	18	400			7.4	17.8	
06/10/01	H	H	H	H			H	H	
06/11/01	H	H	H	H			H	H	
06/12/01	H	H	H	H			H	H	
06/13/01	H	H	H	H			H	H	
06/14/01	H	H	H	H			H	H	
06/15/01	H	H	H	H			H	H	
06/16/01	H	H	H	H			H	H	
06/17/01	H	H	H	H			H	H	
06/18/01	H	H	H	H			H	H	
06/19/01	H	H	H	H			H	H	
06/20/01	H	H	H	H			H	H	
06/21/01	H	H	H	H			H	H	
06/22/01	H	H	H	H			H	H	
06/23/01	H	H	H	H			H	H	
06/24/01	20	32	10	334			7.8	16.5	
06/25/01	23	35	17	351			8.5	18.9	
06/26/01	36	51	25	309			4.2	12.6	
06/27/01	37	68	18	348			5.5	14.1	
06/28/01	36	49	27	350			6.7	13.8	
06/29/01	38	54	22	338			6.1	13.2	
06/30/01	30	47	17	351			6.7	12.6	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	26	38	16	332			6.6	15.4	
07/02/01	24	31	17	327			6.0	12.2	
07/03/01	23	33	16	335			6.8	16.6	
07/04/01	26	33	19	180			7.9	19.6	
07/05/01	30	42	19	309			6.6	13.0	
07/06/01	59	95	33	76			4.8	9.4	
07/07/01	67	102	37	226			2.3	10.6	
07/08/01	42	61	26	324			6.7	13.9	
07/09/01	36	51	25	307			7.3	13.4	
07/10/01	37	49	26	328			6.4	13.9	
07/11/01	40	63	22	342			7.0	14.0	
07/12/01	39	49	29	322			7.2	14.9	
07/13/01	35	51	21	329			6.7	12.9	
07/14/01	29	45	15	345			7.6	16.0	
07/15/01	28	40	21	346			8.7	18.8	
07/16/01	41	53	30	336			7.1	14.4	
07/17/01	43	59	30	335			6.6	11.0	
07/18/01	39	56	24	322			7.2	12.8	
07/19/01	33	46	20	341			8.1	17.3	
07/20/01	34	44	24	341			8.0	15.7	
07/21/01	34	47	23	343			7.8	16.7	
07/22/01	31	45	19	346			7.4	14.9	
07/23/01	28	40	18	339			7.2	15.8	
07/24/01	30	41	20	334			6.6	14.2	
07/25/01	33	43	23	328			6.2	12.7	
07/26/01	33	47	19	325			6.2	12.8	
07/27/01	20	32	10	342			7.5	15.8	
07/28/01	17	22	9	342			8.5	18.3	
07/29/01	19	26	13	342			9.0	17.1	
07/30/01	34	50	26	331			6.6	14.8	
07/31/01	41	58	25	331			6.0	14.6	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	34	49	20	330			6.1	13.1	
08/02/01	30	41	19	328			6.7	13.5	
08/03/01	30	41	19	326			7.0	13.8	
08/04/01	30	40	21	332			8.1	16.7	
08/05/01	29	40	19	334			7.1	14.7	
08/06/01	29	41	20	318			5.6	14.3	
08/07/01	29	49	18	315			5.4	11.9	
08/08/01	26	36	16	315			7.2	14.9	
08/09/01	24	32	17	314			6.7	13.5	
08/10/01	28	36	18	315			6.8	15.4	
08/11/01	29	38	20	319			6.2	14.2	
08/12/01	27	40	16	318			6.5	11.9	
08/13/01	28	40	20	317			6.1	13.4	
08/14/01	28	45	16	318			4.4	11.2	
08/15/01	24	33	13	299			5.2	11.1	
08/16/01	20	30	12	316			7.0	12.8	
08/17/01	20	31	15	268			7.4	17.8	
08/18/01	22	30	13	299			7.5	14.3	
08/19/01	22	31	12	301			7.4	16.0	
08/20/01	24	32	15	305			8.2	16.5	
08/21/01	28	47	18	274			7.0	15.5	
08/22/01	34	53	25	271			6.1	13.1	
08/23/01	38	50	28	268			7.0	15.4	
08/24/01	38	52	26	277			5.8	11.7	
08/25/01	35	49	20	285			4.1	11.7	
08/26/01	26	43	16	285			5.1	12.7	
08/27/01	24	36	17	292			5.4	10.2	
08/28/01	27	37	19	281			5.7	11.9	
08/29/01	29	41	20	286			6.0	13.6	
08/30/01	42	70	24	280			3.1	8.7	
08/31/01	39	55	28	282			3.3	8.8	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	33	48	20	284			5.3	11.2	
09/02/01	27	35	18	282			5.8	12.0	
09/03/01	32	41	25	252			7.0	16.9	
09/04/01	30	41	21	277			6.3	14.6	
09/05/01	28	41	13	279			7.1	15.5	
09/06/01	26	39	19	278			7.7	15.7	
09/07/01	27	39	17	274			7.0	15.2	
09/08/01	25	37	16	272			7.0	13.9	
09/09/01	25	37	16	275			7.7	15.7	
09/10/01	37	57	26	265			4.3	14.9	
09/11/01	46	65	34	160			2.7	14.7	
09/12/01	44	66	29	256			5.1	14.2	
09/13/01	38	52	22	263			6.9	15.1	
09/14/01	30	44	18	266			7.0	14.1	
09/15/01	24	34	14	267			7.4	17.3	
09/16/01	27	35	19	256			7.5	16.9	
09/17/01	33	44	24	255			6.6	15.4	
09/18/01	35	47	23	233			6.1	13.7	
09/19/01	30	39	21	247			6.1	12.6	
09/20/01	29	39	19	249			5.7	13.6	
09/21/01	28	46	20	242			6.5	13.6	
09/22/01	31	43	21	222			6.1	15.1	
09/23/01	26	43	18	191			7.2	16.0	
09/24/01	22	46	11	229			6.8	16.5	
09/25/01	49	82	31	240			2.7	7.5	
09/26/01	45	69	29	243			4.7	12.3	
09/27/01	39	57	25	236			4.3	11.6	
09/28/01	37	51	20	233			6.9	15.7	
09/29/01	36	53	23	235			4.7	13.1	
09/30/01	16	32	11	235			9.3	25.2	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2001

	Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	20	31	13	236			7.8	20.1	
10/02/01	24	43	15	224			6.2	15.8	
10/03/01	26	36	16	221			7.1	17.4	
10/04/01	30	46	20	214			7.2	17.7	
10/05/01	43	65	25	199			4.7	12.9	
10/06/01	52	68	38	202			4.1	12.8	
10/07/01	52	75	33	211			3.6	10.2	
10/08/01	49	71	33	195			4.4	10.7	
10/09/01	46	60	29	208			8.1	14.5	
10/10/01	40	59	23	198			7.2	15.3	
10/11/01	33	43	21	158			7.3	15.6	
10/12/01	38	49	27	190			6.8	14.1	
10/13/01	35	51	19	204			6.9	17.0	
10/14/01	27	56	11	196			6.9	22.4	
10/15/01	17	23	10	176			9.2	19.0	
10/16/01	19	32	12	171			8.7	19.4	
10/17/01	29	47	18	160			7.6	15.9	
10/18/01	35	55	21	188			6.9	15.4	
10/19/01	34	52	22	146			6.8	17.3	
10/20/01	33	49	21	175			6.0	18.3	
10/21/01	32	43	21	167			7.7	16.6	
10/22/01	40	64	26	177			6.8	17.1	
10/23/01	49	72	33	173			4.4	12.5	
10/24/01	50	68	29	156			4.8	13.8	
10/25/01	42	78	20	173			6.0	16.1	
10/26/01	22	30	14	164			9.4	18.9	
10/27/01	27	47	17	135			8.0	20.7	
10/28/01	52	77	37	147			5.1	18.9	
10/29/01	62	77	46	95			2.0	12.6	
10/30/01	83	103	37	18			5.7	22.3	
10/31/01	74	95	48	159			5.6	14.9	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2002

	Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/02												
05/02/02												
05/03/02												
05/04/02												
05/05/02												
05/06/02												
05/07/02												
05/08/02												
05/09/02												
05/10/02												
05/11/02												
05/12/02												
05/13/02												
05/14/02												
05/15/02												
05/16/02												
05/17/02												
05/18/02												
05/19/02												
05/20/02												
05/21/02												
05/22/02												
05/23/02												
05/24/02												
05/25/02												
05/26/02												
05/27/02												
05/28/02												
05/29/02												
05/30/02												
05/31/02												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2002

Date	Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/02												
06/02/02												
06/03/02												
06/04/02												
06/05/02												
06/06/02												
06/07/02												
06/08/02												
06/09/02												
06/10/02												
06/11/02												
06/12/02												
06/13/02												
06/14/02												
06/15/02												
06/16/02												
06/17/02												
06/18/02												
06/19/02												
06/20/02												
06/21/02												
06/22/02												
06/23/02												
06/24/02												
06/25/02												
06/26/02												
06/27/02												
06/28/02	24.79	31.70	18.40	38.36	52.10	27.90	179.66			6.73	13.80	
06/29/02	26.71	34.40	19.30	40.67	59.10	23.30	182.26			6.12	13.20	
06/30/02	29.05	37.40	21.10	32.74	52.90	18.20	160.68			6.66	12.60	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2002

	Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/02	30.96	38.80	23.80	27.85	42.60	16.30	138.85			6.63	15.40	
07/02/02	32.79	39.70	25.40	26.36	35.10	17.70	160.34			6.00	12.20	
07/03/02	35.24	42.20	27.60	25.60	37.50	17.10	156.65			6.78	16.60	
07/04/02	34.15	39.40	29.10	28.50	35.20	20.10	87.76			7.89	19.60	
07/05/02	32.46	38.70	26.20	32.25	47.20	20.80	164.84			6.61	13.00	
07/06/02	26.55	30.50	21.70	62.61	103.00	34.50	34.59			4.81	9.40	
07/07/02	26.09	32.40	20.20	71.87	111.50	40.10	101.12			2.34	10.60	
07/08/02	29.10	34.70	23.40	45.68	68.20	27.70	153.26			6.67	13.90	
07/09/02	29.35	35.00	23.30	39.31	54.90	26.80	146.38			7.32	13.40	
07/10/02	28.05	33.90	23.10	39.21	51.10	27.00	193.28			6.35	13.90	
07/11/02	26.23	31.50	20.40	42.77	68.80	24.30	141.50			6.97	14.00	
07/12/02	25.33	30.90	19.30	41.54	55.10	29.70	146.12			7.21	14.90	
07/13/02	26.96	34.40	20.00	37.24	55.70	22.60	178.32			6.67	12.90	
07/14/02	27.29	34.40	20.60	31.04	50.10	15.80	187.22			7.60	16.00	
07/15/02	25.76	31.20	20.00	30.45	45.00	22.20	168.38			8.66	18.80	
07/16/02	23.09	28.30	18.30	43.88	60.20	32.10	180.75			7.11	14.40	
07/17/02	23.43	29.30	17.50	46.67	63.70	31.70	145.90			6.61	11.00	
07/18/02	25.02	31.40	18.00	41.33	61.80	25.20	163.48			7.17	12.80	
07/19/02	25.88	32.20	19.60	35.33	51.70	21.70	144.06			8.07	17.30	
07/20/02	25.44	31.20	19.90	36.65	48.30	25.80	171.37			7.96	15.70	
07/21/02	25.09	31.50	18.50	36.57	51.90	24.00	194.40			7.79	16.70	
07/22/02	25.92	33.40	18.50	33.20	51.00	20.10	181.13			7.42	14.90	
07/23/02	27.00	34.00	19.30	30.14	43.50	19.50	165.08			7.18	15.80	
07/24/02	28.25	35.20	20.80	31.93	45.10	20.60	190.13			6.62	14.20	
07/25/02	29.44	35.80	22.90	35.44	47.40	24.40	169.89			6.15	12.70	
07/26/02	30.30	37.10	24.00	35.51	51.60	21.20	148.43			6.22	12.80	
07/27/02	32.45	40.80	25.00	21.90	34.80	11.00	172.87			7.48	15.80	
07/28/02	31.75	39.60	25.30	18.39	25.60	10.20	174.16			8.54	18.30	
07/29/02	29.78	36.20	23.40	20.81	28.70	13.50	176.56			8.98	17.10	
07/30/02	25.21	30.90	19.20	36.56	54.20	26.40	156.22			6.60	14.80	
07/31/02	25.55	32.60	18.90	44.53	62.70	27.90	167.70			5.99	14.60	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2002

	Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/02	27.97	35.80	20.90	36.53	54.40	21.20	168.88			6.14	13.10	
08/02/02	29.55	36.70	23.00	32.79	45.70	20.10	161.27			6.73	13.50	
08/03/02	28.56	35.30	23.40	32.65	46.50	20.50	154.04			6.98	13.80	
08/04/02	27.22	34.10	20.90	32.23	44.30	22.40	162.70			8.06	16.70	
08/05/02	27.39	35.10	19.70	32.04	45.20	20.50	164.39			7.09	14.70	
08/06/02	28.79	37.20	22.50	31.14	44.20	21.80	155.04			5.59	14.30	
08/07/02	31.46	39.50	23.30	31.43	52.10	18.60	145.11			5.40	11.90	
08/08/02	32.78	39.00	26.80	27.89	39.20	16.40	155.07			7.16	14.90	
08/09/02	31.71	37.80	26.10	26.36	34.60	18.40	152.93			6.74	13.50	
08/10/02	29.69	36.20	24.40	30.45	40.10	19.60	154.02			6.75	15.40	
08/11/02	29.06	35.80	22.30	31.29	42.20	21.50	145.93			6.21	14.20	
08/12/02	29.52	36.30	23.10	29.46	44.50	17.50	160.12			6.47	11.90	
08/13/02	28.52	35.00	23.00	30.54	42.10	20.60	160.60			6.13	13.40	
08/14/02	28.90	37.10	20.80	30.37	49.20	17.50	156.11			4.41	11.20	
08/15/02	30.35	40.10	23.30	23.96	36.60	11.80	128.14			3.61	11.10	
08/16/02	30.06	39.80	22.70	23.16	32.90	11.60	132.66			1.38	3.00	
08/17/02	29.84	39.30	22.80	22.26	33.40	10.90	130.76			1.69	4.40	
08/18/02	27.86	36.70	21.10	20.23	28.30	8.80	123.62			2.20	5.80	
08/19/02	25.73	34.10	19.10	20.41	34.40	14.00	145.82			1.93	4.10	
08/20/02	24.50	33.90	17.20	28.13	40.60	18.70	127.00			1.53	3.10	
08/21/02	24.83	34.90	16.60	31.34	45.30	17.60	141.42			1.16	2.60	
08/22/02	26.48	36.30	18.00	28.93	44.00	14.70	138.91			1.43	3.70	
08/23/02	26.45	35.80	19.20	29.00	41.70	14.70	133.63			1.36	4.30	
08/24/02	27.52	37.60	19.50	27.32	38.50	15.50	128.87			1.36	3.70	
08/25/02	28.42	37.00	20.60	32.45	52.20	18.80	138.68			0.81	3.00	
08/26/02	29.63	37.70	23.40	32.31	48.60	17.70	137.87			1.14	4.40	
08/27/02	28.83	37.20	22.60	31.85	43.90	18.50	120.98			1.31	3.20	
08/28/02	28.48	36.70	21.80	32.26	46.40	18.00	134.06			0.90	2.80	
08/29/02	24.61	28.20	21.70	41.99	56.30	32.30	38.15			0.35	3.40	
08/30/02	23.47	28.80	18.10	52.38	69.30	36.70	102.13			0.73	3.20	
08/31/02	20.54	27.60	14.50	62.95	90.20	37.20	84.46			0.87	2.90	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2002

	Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/02	17.24	24.00	14.40	82.67	108.90	48.50	43.11			0.26	3.30	
09/02/02	18.91	23.60	15.20	72.53	94.70	51.10	66.35			0.80	3.90	
09/03/02	18.99	26.20	13.20	64.92	91.80	36.80	82.28			0.76	2.70	
09/04/02	18.78	26.70	13.30	59.32	83.30	30.40	98.59			1.08	3.60	
09/05/02	18.77	27.50	12.40	51.99	74.90	27.90	133.66			1.40	5.10	
09/06/02	19.93	32.00	9.50	44.33	79.50	16.00	123.20			1.46	6.00	
09/07/02	22.95	36.00	13.20	31.78	59.10	9.40	106.75			1.58	6.40	
09/08/02	22.93	35.30	13.20	32.15	60.30	12.10	78.02			1.17	5.50	
09/09/02	22.77	34.60	13.00	34.60	58.80	14.50	86.97			1.53	5.90	
09/10/02	23.07	34.80	13.80	40.56	66.80	16.50	105.81			1.22	5.90	
09/11/02	23.48	35.30	13.90	38.38	70.40	15.90	95.92			1.37	6.20	
09/12/02	24.33	37.20	14.20	31.63	57.30	11.80	66.62			0.54	4.00	
09/13/02	27.43	40.00	18.10	34.45	57.00	13.60	84.34			0.83	4.50	
09/14/02	25.77	36.20	17.80	45.36	68.60	21.70	86.56			1.17	5.00	
09/15/02	23.68	32.60	15.90	54.68	78.80	33.70	73.27			1.76	6.90	
09/16/02	23.61	36.20	13.40	42.63	63.10	19.90	82.64			1.26	5.60	
09/17/02	25.49	39.30	15.10	36.54	63.70	13.60	76.62			0.76	4.50	
09/18/02	24.47	35.30	16.00	40.96	67.00	13.50	83.93			1.81	9.20	
09/19/02	26.49	33.90	20.60	32.34	43.30	23.30	124.96			6.10	12.60	
09/20/02	27.22	35.00	20.80	31.45	43.30	20.60	112.53			5.71	13.60	
09/21/02	26.27	32.30	20.80	30.61	46.90	21.10	113.69			6.53	13.60	
09/22/02	26.20	33.30	20.30	33.98	46.70	22.60	105.57			6.11	15.10	
09/23/02	26.56	33.40	21.50	28.72	44.70	19.30	100.72			7.16	16.00	
09/24/02	27.64	36.30	21.50	23.46	46.70	12.20	136.43			6.77	16.50	
09/25/02	23.07	29.20	17.20	52.25	89.40	32.00	126.74			2.70	7.50	
09/26/02	21.91	28.90	16.00	48.72	77.40	30.70	124.98			4.73	12.30	
09/27/02	22.80	30.80	15.60	42.40	64.70	26.80	112.12			4.34	11.60	
09/28/02	22.08	28.80	17.60	40.42	55.80	21.70	115.95			6.90	15.70	
09/29/02	21.80	30.20	14.40	38.63	57.40	24.40	146.22			4.67	13.10	
09/30/02	30.51	38.50	22.60	18.32	34.90	12.20	99.84			9.30	25.20	

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix A: Daily Air Temperatures in the Vicinity of the Big Creek ALP Project Area, Meteorological Monitoring, 2002

	Powerhouse 3 Air Temperature (°C)			Powerhouse 3 Relative Humidity (%)			Powerhouse 3 Solar Radiation (Watts/m 2)			Powerhouse 3 Wind Speed (mps)		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/02	30.53	36.80	25.40	21.98	32.70	14.10	119.24			7.82	20.10	
10/02/02	28.59	36.20	23.00	26.54	47.90	15.60	107.44			6.25	15.80	
10/03/02	28.50	36.40	22.90	28.54	39.60	17.70	107.41			7.08	17.40	
10/04/02	26.83	33.10	22.30	32.89	50.00	21.50	87.24			7.18	17.70	
10/05/02	21.55	27.30	15.30	46.47	66.70	27.30	88.73			4.69	12.90	
10/06/02	18.41	24.40	13.60	55.43	72.60	41.80	96.45			4.11	12.80	
10/07/02	19.14	27.30	12.20	56.07	81.00	35.00	97.78			3.63	10.20	
10/08/02	20.34	27.10	14.00	52.33	77.30	34.80	91.30			4.39	10.70	
10/09/02	19.75	25.50	14.80	48.75	65.20	30.50	101.65			8.07	14.50	
10/10/02	20.17	27.80	13.50	42.74	63.40	23.70	92.11			7.19	15.30	
10/11/02	20.82	27.50	15.90	35.84	47.40	21.70	90.73			7.32	15.60	
10/12/02	20.15	27.50	14.50	41.52	52.40	27.80	107.17			6.84	14.10	
10/13/02	21.55	30.40	15.00	37.51	56.50	20.30	96.18			6.91	17.00	
10/14/02	23.22	33.50	13.90	29.52	62.30	12.80	88.24			6.90	22.40	
10/15/02	25.65	34.40	18.80	19.35	26.50	11.00	75.17			9.20	19.00	
10/16/02	25.64	32.50	21.00	20.67	33.80	12.10	87.89			8.66	19.40	
10/17/02	22.39	28.00	17.20	31.24	51.40	20.90	85.32			7.58	15.90	
10/18/02	21.20	28.20	16.20	38.09	61.20	23.60	84.89			6.92	15.40	
10/19/02	22.15	29.70	17.00	36.86	54.80	23.60	75.70			6.80	17.30	
10/20/02	21.67	29.30	15.30	35.15	53.10	22.20	110.68			6.02	18.30	
10/21/02	21.18	28.10	15.90	34.33	47.10	22.10	92.48			7.74	16.60	
10/22/02	18.87	25.30	13.80	42.70	67.40	28.80	99.01			6.78	17.10	
10/23/02	17.55	25.00	11.90	52.62	76.80	34.40	86.50			4.37	12.50	
10/24/02	17.18	24.20	11.20	53.47	72.10	31.10	68.98			4.77	13.80	
10/25/02	18.60	28.10	8.60	45.10	86.70	20.20	93.59			5.99	16.10	
10/26/02	22.89	30.10	18.20	24.00	32.70	15.60	81.83			9.42	18.90	
10/27/02	21.22	28.50	15.70	29.59	50.10	19.00	71.02			7.97	20.70	
10/28/02	16.70	22.60	10.60	55.59	84.20	37.90	77.56			5.11	18.90	
10/29/02	15.74	21.60	10.60	65.72	81.80	48.60	45.62			1.99	12.60	
10/30/02	15.44	21.30	12.20	88.86	112.50	38.90	10.38			5.70	22.30	
10/31/02												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

APPENDIX B

DAILY WATER TEMPERATURE DATA FOR THE SOUTH FORK SAN JOAQUIN RIVER DRAINAGE

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00	4.3	5.7	3.7	6.3	6.6	6.2	7.1	9.2	6.2			
06/09/00	5.3	9.1	2.3	6.4	6.6	6.2	8.7	12.6	5.6			
06/10/00	6.4	9.4	3.5	6.5	6.7	6.4	9.1	12.4	6.1			
06/11/00	7.2	10.8	4.1	6.6	6.9	6.4	9.4	13.2	6.1			
06/12/00	7.4	10.3	4.9	6.7	6.9	6.6	9.5	12.4	6.8			
06/13/00	8.3	12.0	5.6	6.8	6.9	6.6	10.3	14.3	7.2			
06/14/00	8.3	12.0	5.6	6.8	7.0	6.7	10.4	14.1	7.0	11.9	14.1	8.2
06/15/00	8.7	12.4	5.9	6.9	7.0	6.7	10.7	14.3	7.5	12.4	14.4	8.7
06/16/00	9.1	12.4	6.8	7.0	7.3	6.9	10.6	14.3	7.9	12.5	14.9	9.3
06/17/00	8.6	12.0	6.2	7.0	7.3	6.9	13.6	16.2	9.0	13.9	16.0	9.3
06/18/00	8.8	12.2	6.3	7.2	7.3	7.0	14.3	17.8	10.1	14.6	17.5	10.3
06/19/00	8.7	12.2	5.7	7.3	7.5	7.0	12.8	16.6	9.0	13.6	17.0	9.9
06/20/00	9.7	13.1	7.0	7.3	7.5	7.2	15.2	18.9	11.8	14.9	18.1	11.7
06/21/00	9.4	12.0	7.0	7.4	7.8	7.2	12.3	16.2	9.5	13.6	16.5	11.7
06/22/00	9.0	11.3	7.3	7.4	7.6	7.3	11.9	13.8	9.5	12.7	13.5	11.2
06/23/00	9.4	12.8	7.1	7.6	7.8	7.3	11.5	14.0	9.0	12.4	14.1	10.4
06/24/00	9.6	12.2	7.3	7.6	7.8	7.5	11.5	14.6	8.7	12.3	14.8	9.9
06/25/00	9.4	11.4	7.4	7.7	8.0	7.5	11.2	13.0	8.9	11.9	13.1	10.3
06/26/00	9.4	11.4	7.4	7.7	8.0	7.5	11.9	14.9	9.3	12.0	13.4	9.9
06/27/00	9.9	11.9	7.7	7.7	8.0	7.6	11.2	13.7	8.7	12.2	14.0	10.3
06/28/00	10.7	13.1	8.6	7.8	8.0	7.6	11.2	13.7	8.9	12.0	12.9	10.4
06/29/00	10.8	13.3	8.5	7.8	8.1	7.6	11.7	14.4	8.9	12.2	13.4	10.6
06/30/00	11.6	14.8	9.0	7.9	8.1	7.6	12.5	16.0	9.3	13.3	15.2	10.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	11.2	13.9	8.8	7.9	8.3	7.6	12.6	16.5	8.7	13.1	14.8	10.3
07/02/00	10.6	13.3	7.9	8.0	8.4	7.6	12.3	15.5	8.7	13.1	15.1	10.6
07/03/00	9.9	12.0	7.9	8.1	8.4	8.0	11.6	14.1	8.9	12.4	14.0	10.4
07/04/00	10.1	12.8	7.4	8.1	8.4	8.0	11.5	15.2	8.1	11.9	14.1	9.2
07/05/00	10.5	13.0	7.7	8.2	8.6	8.0	11.3	14.3	8.2	11.8	13.4	9.8
07/06/00	11.0	14.7	8.3	8.3	8.6	8.1	12.0	15.5	8.5	12.4	14.9	9.8
07/07/00	F	F	F	8.4	8.7	8.1	12.2	15.4	8.9	12.6	14.9	10.3
07/08/00	F	F	F	8.5	8.9	8.3	12.3	15.5	8.9	12.8	15.2	10.3
07/09/00	F	F	F	8.7	9.0	8.4	12.5	15.7	9.3	13.3	15.6	10.9
07/10/00	F	F	F	8.8	9.0	8.6	12.4	15.2	9.5	13.4	15.6	11.2
07/11/00	F	F	F	8.8	9.2	8.6	12.8	16.5	9.6	13.7	16.0	11.2
07/12/00	F	F	F	8.8	9.2	8.6	13.2	16.2	9.9	14.1	16.3	11.8
07/13/00	F	F	F	8.9	9.2	8.7	13.1	16.3	9.8	13.9	16.2	11.5
07/14/00	F	F	F	9.0	9.2	8.7	13.2	16.5	9.9	14.1	16.5	11.5
07/15/00	F	F	F	9.0	9.3	8.9	13.5	16.3	10.4	14.4	16.7	12.3
07/16/00	F	F	F	9.1	9.5	8.9	13.2	15.4	10.7	14.2	15.7	12.6
07/17/00	F	F	F	9.1	9.5	8.9	13.0	16.0	9.8	13.5	15.6	11.3
07/18/00	F	F	F	9.2	9.5	8.9	13.1	16.2	9.6	13.7	16.0	11.3
07/19/00	F	F	F	9.2	9.6	9.0	13.0	16.5	9.5	13.7	16.0	11.2
07/20/00	F	F	F	9.3	9.6	9.0	13.3	16.8	9.9	14.2	16.5	11.7
07/21/00	F	F	F	9.3	9.6	9.0	13.6	16.8	10.1	14.4	16.7	12.0
07/22/00	F	F	F	9.4	9.8	9.2	13.5	16.8	9.9	14.4	16.7	11.8
07/23/00	F	F	F	9.5	10.0	9.3	13.7	17.0	10.3	14.6	16.8	12.1
07/24/00	F	F	F	9.6	9.8	9.3	13.8	17.0	10.4	14.8	17.0	12.6
07/25/00	F	F	F	9.7	10.1	9.5	14.0	17.1	10.7	14.9	17.0	12.7
07/26/00	F	F	F	9.8	10.1	9.5	13.9	16.8	10.7	14.8	17.0	12.9
07/27/00	F	F	F	9.8	10.3	9.6	13.7	16.8	10.4	14.5	16.8	12.3
07/28/00	F	F	F	9.8	10.1	9.6	13.6	16.8	10.1	14.4	16.8	12.1
07/29/00	F	F	F	9.9	10.3	9.6	13.8	16.6	10.6	14.7	17.0	12.7
07/30/00	F	F	F	10.0	10.3	9.8	14.3	17.1	11.5	15.6	18.3	13.5
07/31/00	F	F	F	10.1	10.3	9.8	13.3	15.7	10.7	14.7	16.3	13.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	15.7	17.2	14.4	10.1	10.4	10.0	13.2	15.4	11.2	14.3	15.7	12.7
08/02/00	14.9	16.4	13.6	10.2	10.4	10.0	12.5	14.6	10.6	13.5	15.2	12.1
08/03/00	14.0	15.0	13.1	10.3	10.6	10.0	11.9	13.8	10.3	12.9	13.8	12.1
08/04/00	14.0	16.7	11.7	10.4	10.7	10.1	12.9	16.5	9.8	13.4	16.2	10.7
08/05/00	14.7	17.1	12.4	10.5	10.7	10.3	13.4	16.3	10.3	14.6	16.8	12.3
08/06/00	15.8	18.5	13.6	10.6	10.9	10.4	13.5	16.6	10.4	14.7	17.0	12.4
08/07/00	15.7	17.9	13.6	10.6	10.9	10.4	13.5	16.5	10.3	14.6	16.8	12.6
08/08/00	15.3	17.9	13.1	10.7	11.0	10.4	13.4	16.6	10.1	14.4	16.5	12.1
08/09/00	14.8	17.1	12.8	10.7	11.0	10.6	13.4	16.3	10.3	14.2	16.2	12.1
08/10/00	13.6	16.3	11.3	10.7	11.0	10.6	13.1	15.9	9.8	13.6	15.9	11.3
08/11/00	13.2	16.4	10.3	10.8	11.0	10.6	12.9	16.2	9.5	13.5	15.9	11.0
08/12/00	13.9	16.9	11.1	10.9	11.2	10.6	13.1	16.3	9.8	13.9	16.2	11.3
08/13/00	14.0	17.1	11.3	11.0	11.4	10.7	13.2	16.2	9.9	14.0	16.2	11.5
08/14/00	14.5	17.5	11.7	11.1	11.5	10.7	13.4	16.5	10.1	14.1	16.2	11.8
08/15/00	15.2	18.3	12.4	11.3	11.5	11.0	13.5	17.0	10.3	14.2	16.0	11.5
08/16/00	15.5	17.7	13.1	11.4	11.7	11.0	13.7	17.1	10.6	14.5	16.2	11.8
08/17/00	15.4	17.5	13.3	11.4	11.7	11.0	13.6	16.6	10.7	14.4	16.0	12.0
08/18/00	14.5	17.1	12.0	11.5	11.8	11.4	13.2	16.6	9.9	13.6	15.2	10.9
08/19/00	13.5	16.1	10.8	11.6	11.8	11.4	12.9	16.2	9.6	13.2	14.9	10.4
08/20/00	13.2	16.1	10.3	11.7	12.0	11.5	13.0	16.3	9.8	13.2	15.1	10.4
08/21/00	13.5	16.4	10.5	11.8	12.1	11.5	13.2	16.5	9.9	13.4	15.2	10.6
08/22/00	13.7	16.6	10.8	11.9	12.3	11.5	13.4	16.6	10.3	13.6	15.4	10.9
08/23/00	14.1	17.1	11.4	12.0	12.4	11.7	13.7	17.1	10.6	14.0	15.7	11.3
08/24/00	14.4	17.2	11.6	12.1	12.6	11.8	13.8	17.1	10.6	14.1	15.9	11.5
08/25/00	14.2	15.2	13.3	12.2	12.4	12.0	13.5	15.2	11.8	14.1	15.4	12.9
08/26/00	13.3	14.4	12.2	12.3	12.4	12.0	13.5	15.7	11.6	13.4	14.3	12.1
08/27/00	13.7	16.1	11.4	12.4	12.7	12.1	14.1	17.3	11.3	14.2	16.2	12.0
08/28/00	13.7	14.8	12.5	12.5	13.1	12.1	13.5	15.1	11.6	13.9	15.2	12.3
08/29/00	12.6	13.3	12.0	12.7	12.7	12.3	13.3	14.1	12.4	13.5	14.1	12.9
08/30/00	12.5	13.7	11.4	12.7	12.9	12.6	13.6	15.5	12.3	13.6	14.8	12.4
08/31/00	12.7	14.5	11.0	12.8	13.1	12.6	13.9	16.5	11.5	13.7	15.4	11.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	10.6	12.5	8.8	12.8	13.1	12.6	12.4	14.6	11.6	12.1	14.4	10.9
09/02/00	9.7	12.7	7.6	12.9	13.1	12.6	13.1	15.9	11.0	12.4	14.3	10.6
09/03/00	10.8	13.4	8.5	12.9	13.2	12.7	13.5	16.6	10.9	13.0	14.8	10.6
09/04/00	10.7	13.1	8.3	13.0	13.4	12.6	13.4	16.2	10.7	12.9	14.4	10.6
09/05/00	10.1	12.5	7.6	13.3	13.7	12.9	13.3	16.3	10.4	12.5	14.0	10.1
09/06/00	10.0	12.7	7.1	13.3	13.5	12.9	13.5	16.6	10.4	12.7	14.4	10.1
09/07/00	10.6	13.1	7.6	13.4	13.7	13.2	13.6	16.6	10.6	13.0	14.4	10.4
09/08/00	11.5	13.9	9.0	13.5	13.7	13.4	14.1	17.1	11.2	13.6	15.1	11.3
09/09/00	11.5	13.7	8.8	13.6	13.7	13.4	13.9	17.0	10.9	13.4	14.9	10.9
09/10/00	12.0	14.2	9.3	13.7	13.8	13.5	14.1	17.3	11.2	13.7	15.4	11.3
09/11/00	12.2	14.5	9.4	13.7	13.8	13.7	14.2	17.3	11.3	13.9	15.4	11.3
09/12/00	12.0	13.6	9.9	13.8	14.0	13.5	14.0	16.6	11.3	13.7	15.1	11.5
09/13/00	12.8	14.5	10.8	13.8	14.0	13.7	14.6	17.1	12.4	14.4	15.7	12.4
09/14/00	13.4	15.8	11.0	13.9	14.1	13.7	14.7	17.6	12.1	14.6	16.2	12.4
09/15/00	13.1	15.0	10.7	14.0	14.3	13.7	14.4	17.0	11.6	14.1	15.6	11.8
09/16/00	12.6	14.7	10.2	14.5	15.4	14.0	14.1	16.8	11.3	13.7	15.2	11.5
09/17/00	13.0	15.3	10.5	14.5	14.6	14.1	15.0	17.9	12.4	14.5	16.3	12.3
09/18/00	13.5	15.6	11.1	M	M	M	14.9	17.4	12.3	14.8	16.2	12.6
09/19/00	13.6	15.6	11.3	M	M	M	15.1	17.4	12.4	14.9	16.5	12.9
09/20/00	14.0	16.1	11.7	M	M	M	15.4	17.9	12.7	15.1	16.7	13.1
09/21/00	13.8	15.5	11.9	M	M	M	15.3	17.4	13.0	15.1	16.5	13.4
09/22/00	12.5	14.4	10.8	M	M	M	14.5	16.3	12.4	13.9	15.1	12.6
09/23/00	11.4	13.3	9.3	M	M	M	14.2	16.6	11.8	13.3	14.8	11.3
09/24/00	10.9	12.8	8.5	M	M	M	14.3	16.6	11.6	13.4	14.9	11.3
09/25/00	10.9	13.0	8.5	M	M	M	14.5	17.0	12.0	13.7	15.1	11.7
09/26/00	11.1	13.0	8.8	M	M	M	14.6	16.8	12.3	13.8	15.2	11.8
09/27/00	11.0	13.0	8.8	M	M	M	14.5	16.6	12.3	13.8	15.2	12.0
09/28/00	11.1	12.8	9.1	M	M	M	14.6	16.6	12.3	13.9	15.2	12.0
09/29/00	11.3	13.1	9.3	M	M	M	14.6	16.8	12.4	13.9	15.2	12.1
09/30/00	11.4	13.4	9.1	M	M	M	14.6	16.8	12.3	13.9	15.4	11.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	11.6	13.4	9.6	M	M	M	14.6	16.8	12.3	13.9	15.2	12.1
10/02/00	11.1	13.0	9.0	M	M	M	14.3	16.6	12.0	13.5	14.8	11.5
10/03/00	10.8	12.5	8.8	M	M	M	14.3	16.3	12.0	13.5	14.8	11.7
10/04/00	10.5	12.2	8.6	M	M	M	14.2	16.2	12.0	13.3	14.6	11.7
10/05/00	10.3	12.0	8.3	M	M	M	14.2	16.3	12.1	13.4	14.8	11.7
10/06/00	10.4	11.7	8.5	M	M	M	14.2	16.3	12.0	13.4	14.6	11.7
10/07/00	10.1	11.1	8.5	M	M	M	14.2	16.2	12.1	13.4	14.4	11.8
10/08/00	9.9	11.4	8.0	M	M	M	14.1	16.0	12.0	13.2	14.4	11.5
10/09/00	9.2	10.5	7.7	M	M	M	13.2	15.1	11.6	12.4	13.5	11.3
10/10/00	5.9	8.6	4.6	M	M	M	11.5	13.0	10.3	10.0	11.7	9.3
10/11/00	4.1	5.1	2.6	M	M	M	11.6	12.9	10.4	10.0	11.3	8.9
10/12/00	5.2	6.6	3.7	M	M	M	12.1	14.0	10.6	10.8	12.1	9.3
10/13/00	5.4	6.8	3.5	M	M	M	11.9	13.7	9.9	10.8	11.8	9.2
10/14/00	5.8	7.3	4.0	M	M	M	11.9	13.7	9.9	10.8	12.0	9.3
10/15/00	5.9	7.3	4.0	M	M	M	11.7	13.5	9.8	10.7	11.8	9.2
10/16/00	6.2	7.6	4.3	M	M	M	11.7	13.7	9.8	10.8	12.0	9.2
10/17/00	6.3	7.6	4.5	M	M	M	11.6	13.5	9.6	10.8	12.0	9.2
10/18/00	6.4	7.3	5.1	M	M	M	11.6	13.2	9.9	10.9	12.0	9.3
10/19/00	6.5	7.7	4.8	M	M	M	11.4	13.3	9.6	10.6	11.7	9.0
10/20/00	6.7	7.7	5.1	M	M	M	11.4	12.9	9.6	10.7	11.5	9.3
10/21/00	5.5	7.3	4.3	M	M	M	10.5	12.3	9.5	9.6	11.2	8.7
10/22/00	3.9	5.2	2.6	M	M	M	10.0	11.8	8.4	8.6	9.8	7.2
10/23/00	4.5	5.7	2.9	M	M	M	10.3	12.3	8.7	9.2	10.4	7.8
10/24/00	5.1	5.9	3.7									
10/25/00												
10/26/00												
10/27/00												
10/28/00												
10/29/00												
10/30/00												
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00				V	V	V	10.1	14.1	6.8	10.4	14.1	7.1
06/03/00				V	V	V	10.4	14.7	7.4	10.7	14.5	7.6
06/04/00				V	V	V	9.9	13.6	7.3	10.1	13.6	7.4
06/05/00				V	V	V	9.2	12.0	6.6	9.4	12.2	6.8
06/06/00				V	V	V	10.1	14.1	7.1	10.3	13.9	7.3
06/07/00				V	V	V	10.1	13.4	7.4	10.3	12.9	7.6
06/08/00				V	V	V	8.5	9.7	7.4	8.8	10.1	7.6
06/09/00				V	V	V	9.3	13.1	6.2	9.5	13.0	6.2
06/10/00				V	V	V	11.2	14.1	8.8	11.5	14.2	8.8
06/11/00				V	V	V	11.9	15.0	9.1	12.2	15.0	9.3
06/12/00				V	V	V	12.6	14.8	10.5	13.0	15.2	10.7
06/13/00	12.4	15.7	9.6	V	V	V	13.7	17.2	11.0	14.2	17.4	11.3
06/14/00	12.9	15.8	10.1	V	V	V	11.6	15.3	8.3	11.9	15.3	8.7
06/15/00	13.5	16.1	10.7	V	V	V	10.8	13.3	8.3	11.0	13.2	8.8
06/16/00	13.7	16.3	11.3	V	V	V	10.4	12.8	8.2	10.6	12.9	8.2
06/17/00	14.2	16.3	9.7	V	V	V	11.4	13.4	8.8	11.5	13.6	8.8
06/18/00	14.8	18.4	10.5	V	V	V	10.8	12.5	8.6	10.9	12.5	8.7
06/19/00	14.2	16.9	11.6	V	V	V	10.2	12.8	7.7	10.3	12.7	7.8
06/20/00	15.0	18.7	11.8	V	V	V	11.5	13.4	9.6	11.6	13.3	9.6
06/21/00	14.5	15.8	13.2	V	V	V	11.1	12.8	9.4	11.3	12.9	9.6
06/22/00	13.4	15.5	12.1	V	V	V	11.0	12.2	9.6	11.1	12.2	9.8
06/23/00	13.1	14.9	11.6	V	V	V	12.1	15.3	9.3	12.1	15.0	9.4
06/24/00	13.1	16.1	11.1	V	V	V	14.5	17.9	11.6	14.9	18.2	12.1
06/25/00	12.3	13.6	11.5	V	V	V	12.0	15.3	9.9	12.4	15.8	10.1
06/26/00	12.3	14.1	10.5	V	V	V	10.3	11.1	9.3	10.5	11.3	9.4
06/27/00	12.9	15.0	11.5	V	V	V	11.0	12.4	9.7	11.1	12.2	9.9
06/28/00	12.6	13.8	11.6	V	V	V	12.9	15.2	10.8	13.0	15.2	11.0
06/29/00	12.6	14.5	11.5	V	V	V	13.9	16.4	11.7	14.5	16.8	12.1
06/30/00	13.8	16.9	11.6	V	V	V	14.6	17.7	12.0	15.0	18.0	12.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	13.7	16.4	11.6	V	V	V	15.3	18.0	12.7	15.8	18.5	13.0
07/02/00	13.6	16.6	11.6	V	V	V	14.9	17.7	12.0	15.4	18.2	12.4
07/03/00	13.0	15.3	11.5	V	V	V	14.8	17.7	11.9	15.3	18.0	12.7
07/04/00	12.3	15.7	9.9	V	V	V	13.9	16.7	10.8	14.5	17.1	11.6
07/05/00	12.3	14.7	10.5	V	V	V	13.8	16.1	11.1	14.4	17.4	11.8
07/06/00	12.9	16.4	10.4	V	V	V	14.1	17.4	11.0	14.6	17.6	11.6
07/07/00	13.1	16.3	10.8	V	V	V	14.7	17.7	11.6	15.2	17.9	12.4
07/08/00	13.2	16.8	10.8	V	V	V	14.7	17.7	11.6	15.2	17.9	12.4
07/09/00	13.8	17.1	11.6	V	V	V	15.3	18.3	12.2	15.8	18.5	13.0
07/10/00	14.0	16.4	11.9	V	V	V	15.7	18.5	12.8	16.3	18.7	13.6
07/11/00	14.3	17.6	12.1	V	V	V	16.1	19.0	13.1	16.6	19.3	13.9
07/12/00	14.7	17.9	12.8	V	V	V	16.4	19.5	13.4	17.0	19.7	14.2
07/13/00	14.5	17.7	12.2	V	V	V	16.2	19.1	13.3	16.8	19.3	14.1
07/14/00	14.6	18.0	12.2	V	V	V	16.2	19.0	13.3	16.8	19.3	14.1
07/15/00	15.0	18.0	13.0	V	V	V	16.6	19.3	13.7	17.2	19.7	14.7
07/16/00	15.0	17.7	13.5	V	V	V	16.6	18.8	14.4	17.3	19.3	15.2
07/17/00	14.0	16.8	12.1	V	V	V	16.0	18.7	13.3	16.6	19.2	14.1
07/18/00	14.1	17.6	11.8	14.8	18.3	11.5	15.7	18.7	12.7	16.3	18.8	13.5
07/19/00	14.2	17.6	11.8	14.8	18.1	11.5	15.7	18.5	12.7	16.4	18.8	13.6
07/20/00	14.7	18.0	12.4	15.3	18.8	12.1	16.2	19.1	13.0	16.7	19.5	13.9
07/21/00	14.9	18.2	12.7	15.6	18.9	12.5	16.6	19.5	13.4	17.2	19.8	14.4
07/22/00	15.0	18.4	12.7	15.7	18.9	12.5	16.7	19.3	13.7	17.3	19.8	14.5
07/23/00	15.1	18.4	12.8	15.8	18.9	12.8	16.7	19.3	13.9	17.3	19.7	14.7
07/24/00	15.3	18.5	13.2	15.9	19.1	12.9	16.9	19.6	14.1	17.5	20.0	14.9
07/25/00	15.5	18.7	13.5	16.1	19.2	13.2	17.1	19.8	14.2	17.6	20.0	15.2
07/26/00	15.4	18.5	13.5	16.1	19.1	13.2	17.1	19.6	14.4	17.7	20.1	15.2
07/27/00	15.0	18.4	12.7	15.6	18.9	12.5	16.6	19.3	13.7	17.2	19.7	14.7
07/28/00	14.8	18.0	12.5	15.5	18.8	12.3	16.5	19.1	13.4	17.0	19.5	14.4
07/29/00	15.2	18.4	13.0	15.9	19.1	12.9	16.8	19.5	14.1	17.3	19.7	14.9
07/30/00	16.1	19.2	14.1	16.8	19.7	13.8	17.7	19.8	15.3	18.2	20.1	16.1
07/31/00	15.5	17.7	14.2	16.3	18.6	14.5	17.5	19.0	15.5	18.0	19.3	16.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	15.1	16.6	13.9	15.8	17.8	14.3	16.9	18.2	15.2	17.4	18.5	15.8
08/02/00	14.4	16.3	13.3	15.0	16.8	13.5	16.0	17.5	14.4	16.5	17.9	14.9
08/03/00	13.6	15.2	12.7	14.2	15.9	12.9	15.3	16.4	13.9	15.6	16.8	14.7
08/04/00	14.1	17.6	11.5	14.8	18.1	11.8	15.6	19.0	12.8	16.1	19.0	13.3
08/05/00	15.3	18.4	13.2	15.9	19.1	13.1	16.9	19.6	14.1	17.4	20.1	14.7
08/06/00	15.5	18.7	13.5	16.3	19.2	13.7	17.4	20.1	14.7	18.0	20.5	15.5
08/07/00	15.4	18.2	13.5	16.1	19.1	13.5	17.2	19.8	14.5	17.7	19.8	15.3
08/08/00	15.1	18.0	13.0	15.7	18.8	13.1	16.8	19.5	14.2	17.4	19.8	15.0
08/09/00	14.8	17.7	12.8	15.4	18.4	12.9	16.5	19.1	13.9	17.1	19.5	14.7
08/10/00	14.1	17.2	11.8	14.7	17.6	11.8	15.7	18.2	13.0	16.3	18.5	13.8
08/11/00	14.0	17.2	11.6	14.5	17.6	11.5	15.4	18.2	12.5	16.0	18.5	13.5
08/12/00	14.3	17.6	11.9	14.8	17.9	11.7	15.7	18.3	12.7	16.2	18.8	13.6
08/13/00	14.5	17.6	12.2	15.0	18.1	12.1	15.9	18.5	13.1	16.4	18.8	13.9
08/14/00	14.6	17.9	12.4	15.1	18.3	12.1	16.0	18.7	13.1	16.5	19.0	13.9
08/15/00	14.8	17.6	12.7	15.3	18.1	12.9	16.3	19.0	13.4	16.8	19.5	14.1
08/16/00	15.0	17.6	13.0	15.5	18.3	13.4	16.4	19.0	13.7	17.0	19.7	14.4
08/17/00	15.0	17.6	13.3	15.5	18.1	13.4	16.4	19.1	13.9	17.0	19.7	14.4
08/18/00	14.1	16.8	12.1	14.6	17.1	12.3	15.5	17.9	13.0	16.0	18.4	13.5
08/19/00	13.5	16.3	11.5	14.0	16.7	11.5	14.8	17.4	12.0	15.3	17.9	12.5
08/20/00	13.5	16.4	11.3	13.9	16.7	11.4	14.5	17.2	11.9	15.0	17.7	12.2
08/21/00	13.7	16.6	11.6	14.1	16.8	11.7	14.7	17.4	11.9	15.1	17.9	12.4
08/22/00	13.9	16.8	11.8	14.3	17.0	11.8	14.9	17.5	12.2	15.3	18.0	12.7
08/23/00	14.3	17.1	12.4	14.6	17.3	12.3	15.2	17.9	12.7	15.7	18.4	13.0
08/24/00	14.5	17.1	12.4	14.8	17.6	12.5	15.5	18.3	12.8	16.0	18.8	13.2
08/25/00	14.5	15.3	13.6	14.7	15.7	13.7	15.3	16.3	14.2	15.7	16.8	14.7
08/26/00	13.8	14.9	12.7	14.2	15.7	12.8	15.0	16.7	13.3	15.5	17.6	13.6
08/27/00	14.5	16.9	12.7	14.9	17.6	12.6	15.3	18.0	13.0	15.6	18.0	13.3
08/28/00	14.2	15.2	13.3	14.6	16.0	13.5	15.4	16.6	13.7	15.9	17.2	14.2
08/29/00	13.8	14.5	13.3	14.0	14.9	13.4	14.5	15.3	13.7	14.8	15.5	14.1
08/30/00	13.7	15.3	12.7	14.0	15.6	12.9	14.3	15.9	13.1	14.6	16.1	13.3
08/31/00	13.7	15.7	12.4	14.0	16.4	12.3	14.5	16.7	12.7	14.9	17.1	13.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	12.3	13.6	10.7	12.3	13.4	10.6	12.8	14.4	11.4	13.1	14.9	11.9
09/02/00	12.0	14.2	10.5	12.0	14.6	10.0	12.2	15.0	10.0	12.7	15.5	10.4
09/03/00	13.1	15.5	11.3	13.2	15.6	11.5	13.4	15.8	11.4	13.8	16.3	11.6
09/04/00	12.9	15.2	11.3	12.9	15.4	10.9	13.2	15.6	11.0	13.6	16.0	11.1
09/05/00	12.4	14.5	10.7	12.3	14.6	10.3	12.6	14.8	10.3	13.0	15.3	10.7
09/06/00	12.6	15.0	10.7	12.4	14.9	10.1	12.5	15.0	9.9	12.8	15.3	10.2
09/07/00	12.9	15.3	11.0	12.8	15.4	10.4	12.9	15.5	10.3	13.2	15.8	10.5
09/08/00	13.5	15.8	11.8	13.4	15.9	11.5	13.5	15.9	11.3	13.9	16.3	11.5
09/09/00	13.3	15.7	11.6	13.3	15.7	11.2	13.4	15.8	11.0	13.8	16.1	11.3
09/10/00	13.6	16.0	11.9	13.6	16.0	11.5	13.7	16.3	11.3	14.1	16.6	11.6
09/11/00	13.8	16.1	11.9	13.8	16.2	11.7	14.0	16.4	11.6	14.3	16.8	11.8
09/12/00	13.6	15.2	12.1	13.6	15.6	11.7	13.8	15.3	11.6	14.0	15.5	11.9
09/13/00	14.3	16.4	12.8	14.5	16.7	12.6	14.6	16.7	12.4	14.9	17.1	12.7
09/14/00	14.6	16.9	13.0	14.8	17.3	12.8	15.1	17.5	12.8	15.4	17.7	13.2
09/15/00	14.1	16.3	12.7	14.3	16.5	12.3	14.7	16.9	12.5	15.2	17.4	13.0
09/16/00	13.7	16.0	12.1	13.7	16.0	11.5	14.1	16.3	11.7	14.5	16.4	12.2
09/17/00	14.2	16.8	12.4	14.1	16.7	11.8	14.3	16.7	11.9	14.6	17.1	12.2
09/18/00	14.7	17.2	13.2	14.8	17.0	12.8	14.9	17.2	12.7	15.3	17.6	13.0
09/19/00	14.8	17.6	13.0	14.8	17.3	12.5	15.0	17.2	12.7	15.4	17.6	13.3
09/20/00	15.1	17.6	13.3	15.1	17.5	13.1	15.4	17.5	13.1	15.7	17.9	13.6
09/21/00	15.0	17.4	13.8	15.1	17.3	13.2	15.3	17.4	13.3	15.7	17.7	13.8
09/22/00	13.7	15.7	12.8	13.7	15.1	12.6	13.9	15.3	12.7	14.2	15.5	13.2
09/23/00	12.9	15.2	11.3	12.8	14.8	10.9	12.8	14.8	10.8	13.1	15.0	11.1
09/24/00	12.9	15.5	11.1	12.7	14.9	10.6	12.6	14.7	10.5	12.9	15.0	10.8
09/25/00	13.2	15.7	11.6	13.0	15.3	10.9	12.8	15.0	10.7	13.1	15.2	11.0
09/26/00	13.3	15.7	11.8	13.1	15.3	11.2	13.0	15.0	11.0	13.3	15.2	11.3
09/27/00	13.3	15.7	11.8	13.1	15.3	11.2	12.9	15.0	10.8	13.2	17.9	11.1
09/28/00	13.4	15.5	11.9	13.2	15.3	11.4	13.0	14.8	11.1	13.3	15.2	11.5
09/29/00	13.5	15.8	12.1	13.3	15.4	11.5	13.1	15.0	11.1	13.3	15.3	11.5
09/30/00	13.5	16.0	11.9	13.2	15.4	11.2	13.0	15.0	10.8	13.2	15.3	11.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	13.5	15.7	12.1	13.3	15.3	11.5	13.1	15.0	11.3	13.3	15.3	11.5
10/02/00	13.0	15.2	11.5	12.8	14.8	10.9	12.6	14.4	10.5	12.8	14.7	10.8
10/03/00	13.0	15.0	11.5	12.8	14.6	10.9	12.6	14.4	10.7	12.8	14.5	10.8
10/04/00	12.9	15.0	11.5	12.6	14.6	10.9	12.4	14.2	10.5	12.7	14.5	10.8
10/05/00	12.9	15.2	11.5	12.7	14.6	10.9	12.4	14.2	10.5	12.7	14.5	10.8
10/06/00	12.9	15.0	11.5	12.7	14.6	10.9	12.4	14.2	10.5	12.7	14.5	10.8
10/07/00	12.9	14.7	11.8	12.5	13.8	11.1	12.3	13.7	10.7	12.5	14.1	11.0
10/08/00	12.8	14.9	11.5	12.5	14.3	10.9	12.2	14.1	10.5	12.4	14.2	10.7
10/09/00	12.0	13.3	10.8	11.7	12.9	10.4	11.6	12.8	10.2	11.7	12.7	10.4
10/10/00	9.4	10.8	8.5	9.2	10.9	8.1	9.0	11.3	8.0	9.1	11.1	8.1
10/11/00	9.0	10.2	8.1	8.6	9.8	7.5	7.9	8.8	6.8	7.9	8.8	6.8
10/12/00	9.9	12.1	8.8	9.5	11.2	8.1	8.5	10.2	7.3	8.6	10.5	7.1
10/13/00	10.0	11.9	8.7	9.6	11.4	8.1	8.6	10.2	6.9	8.8	10.5	7.0
10/14/00	10.1	12.1	9.0	9.8	11.5	8.3	8.8	10.3	7.1	9.0	10.7	7.1
10/15/00	10.1	12.1	8.8	9.8	11.5	8.3	8.8	10.3	7.1	9.0	10.7	7.3
10/16/00	10.2	12.2	9.0	10.0	11.7	8.4	9.0	10.7	7.3	9.2	11.0	7.4
10/17/00	10.2	12.1	9.0	10.0	11.7	8.4	9.1	10.7	7.4	9.3	11.0	7.6
10/18/00	10.4	11.8	9.3	10.0	11.4	8.7	9.1	10.3	7.7	9.2	10.4	7.9
10/19/00	10.1	11.9	8.8	9.9	11.5	8.4	9.1	10.7	7.6	9.3	11.0	7.8
10/20/00	10.2	11.8	9.1	10.0	11.7	8.7	9.3	10.7	7.7	9.4	10.8	7.8
10/21/00	9.1	10.1	7.7	8.9	10.0	7.7	8.4	9.7	7.3	8.5	9.8	7.3
10/22/00	7.8	9.7	6.7	7.5	9.0	6.3	6.8	8.2	5.5	7.0	8.4	5.6
10/23/00	8.4	10.4	7.3	8.0	9.8	6.4	6.9	8.8	5.2	7.1	9.0	5.3
10/24/00	8.8	10.4	7.9	8.7	10.3	7.3	7.2	8.6	5.7	7.3	9.0	5.7
10/25/00	8.9	10.1	8.1	8.8	10.1	7.8	7.8	9.3	6.3	7.9	9.1	6.4
10/26/00	8.3	9.4	7.5	8.3	9.4	7.7	8.0	9.1	7.1	8.2	9.0	7.3
10/27/00	7.9	9.4	6.9	7.8	9.4	6.6	7.3	8.6	6.0	7.5	8.8	6.2
10/28/00	8.1	8.7	7.3	7.9	8.7	7.0	7.1	8.0	6.0	7.2	8.1	6.0
10/29/00	7.0	7.8	5.6	7.0	7.8	5.5	6.5	7.4	5.2	6.6	7.6	5.6
10/30/00	6.0	7.7	4.9	5.8	6.9	4.7	5.0	6.2	4.0	5.2	6.5	4.0
10/31/00	6.0	7.5	5.3	5.9	7.2	4.9	4.4	5.5	3.5	4.6	5.9	3.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SF JR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SF JR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00	9.6	12.6	6.7									
06/03/00	10.1	13.0	7.3									
06/04/00	9.8	12.6	7.3									
06/05/00	9.2	11.6	6.8									
06/06/00	9.9	12.9	7.1									
06/07/00	9.9	11.8	7.4									
06/08/00	8.1	9.8	7.0									
06/09/00	8.8	11.9	5.7									
06/10/00	10.6	13.2	7.9									
06/11/00	11.2	14.0	8.4									
06/12/00	11.9	14.1	9.8									
06/13/00	12.9	15.5	10.2									
06/14/00	11.6	14.3	8.5									
06/15/00	11.1	13.2	9.1									
06/16/00	10.7	12.7	8.4									
06/17/00	11.5	13.6	8.8									
06/18/00	10.9	12.4	8.7									
06/19/00	10.4	12.7	7.9									
06/20/00	11.7	13.2	9.8									
06/21/00	11.4	12.9	9.8									
06/22/00	11.2	12.4	9.9									
06/23/00	11.9	14.3	9.5									
06/24/00	14.5	17.4	11.6									
06/25/00	12.4	15.2	10.2									
06/26/00	10.6	11.6	9.5									
06/27/00	11.2	12.1	9.9	11.6	13.2	10.3	11.8	14.1	10.4			
06/28/00	12.9	14.7	11.0	13.1	15.1	11.3	13.3	14.9	11.5			
06/29/00	14.3	16.8	11.9	15.2	18.6	12.4	15.6	19.4	12.6			
06/30/00	14.9	17.9	12.1	15.6	17.9	13.1	16.0	18.2	13.5			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SF JR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	15.5	17.9	12.9	16.1	18.7	13.4	16.4	19.4	13.5			
07/02/00	15.2	17.8	12.3	16.0	18.6	13.2	16.2	19.4	13.4			
07/03/00	15.1	17.4	12.7	15.8	18.4	13.4	16.0	19.2	13.5			
07/04/00	14.4	16.6	11.6	15.3	17.8	12.7	15.5	18.7	12.7			
07/05/00	14.4	17.1	11.8	15.2	18.1	12.6	15.4	18.7	12.6			
07/06/00	14.6	17.3	11.8	15.4	18.3	12.6	15.7	19.1	12.7			
07/07/00	15.1	17.4	12.4	15.8	18.7	13.2	16.0	19.5	12.9			
07/08/00	15.2	17.4	12.6	16.0	18.7	13.4	16.1	19.5	13.2			
07/09/00	15.8	18.1	13.2	16.6	19.4	13.8	16.7	20.2	13.7			
07/10/00	16.3	18.4	13.8	17.2	20.2	14.4	17.4	20.8	14.3			
07/11/00	16.7	19.0	14.0	17.6	20.4	15.1	17.9	21.2	15.1			
07/12/00	17.1	19.4	14.4	17.9	20.9	15.2	18.2	21.7	15.2			
07/13/00	16.9	19.0	14.3	17.9	20.9	15.1	18.1	21.7	14.9			
07/14/00	16.9	19.0	14.3	17.8	20.5	15.1	18.0	21.5	14.9			
07/15/00	17.3	19.4	14.9	18.1	21.0	15.6	18.3	21.7	15.4			
07/16/00	17.4	19.2	15.4	18.3	21.0	16.2	18.4	21.2	16.0			
07/17/00	16.8	19.0	14.3	17.7	20.7	15.1	18.0	21.3	15.1			
07/18/00	16.4	18.7	13.8	17.3	20.4	14.4	17.6	21.0	14.4			
07/19/00	16.5	18.7	14.0	17.4	20.2	14.4	17.5	21.0	14.3			
07/20/00	16.9	19.2	14.1	17.7	20.9	14.8	17.9	21.5	14.6			
07/21/00	17.3	19.7	14.6	18.2	21.3	15.2	18.3	22.0	15.1			
07/22/00	17.5	19.5	14.9	18.4	21.3	15.6	18.5	22.0	15.4			
07/23/00	17.5	19.5	14.9	18.4	21.3	15.6	18.6	22.0	15.4			
07/24/00	17.6	19.7	15.2	18.4	21.3	15.7	18.6	22.0	15.5			
07/25/00	17.8	19.9	15.5	18.6	21.3	16.0	18.8	22.0	15.9			
07/26/00	17.8	19.7	15.5	18.6	21.5	16.2	18.8	22.2	16.0			
07/27/00	17.4	19.5	14.9	18.2	21.2	15.6	18.4	21.8	15.4			
07/28/00	17.2	19.4	14.7	18.0	21.2	15.2	18.2	21.7	14.9			
07/29/00	17.5	19.5	15.2	18.2	21.0	15.7	18.4	21.5	15.5			
07/30/00	18.4	20.3	16.3	19.0	21.8	16.8	19.2	22.0	16.6			
07/31/00	18.2	19.5	16.6	19.0	21.7	17.1	19.2	22.0	16.8			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SF JR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	17.7	18.7	16.3	18.7	20.9	17.3	19.0	21.0	17.4			
08/02/00	16.7	18.1	15.2	17.5	19.9	16.2	17.8	19.9	16.2			
08/03/00	15.8	16.8	14.9	16.6	17.9	15.6	16.9	18.6	15.5			
08/04/00	16.2	18.7	13.5	16.7	19.4	14.3	17.1	20.3	14.3			
08/05/00	17.6	19.9	15.0	18.4	21.3	15.7	18.5	22.2	15.5			
08/06/00	18.2	20.3	15.8	19.0	21.8	16.7	19.2	22.7	16.5			
08/07/00	17.9	19.5	15.8	18.8	21.5	16.5	19.0	22.3	16.5			
08/08/00	17.6	19.5	15.4	18.4	21.2	16.0	18.6	21.8	15.9			
08/09/00	17.4	19.4	15.0	18.2	21.0	15.7	18.3	21.5	15.5			
08/10/00	16.5	18.4	14.1	17.4	20.2	14.8	17.5	20.8	14.6			
08/11/00	16.2	18.2	13.6	17.0	19.9	14.3	17.1	20.5	14.0			
08/12/00	16.4	18.6	13.8	17.2	20.2	14.3	17.3	20.7	14.1			
08/13/00	16.6	18.6	14.3	17.4	20.2	14.8	17.5	21.0	14.4			
08/14/00	16.7	18.7	14.3	17.5	20.5	14.8	17.6	21.0	14.4			
08/15/00	17.1	19.2	14.6	17.8	20.4	15.4	17.9	21.3	15.2			
08/16/00	17.2	19.2	14.7	17.9	20.5	15.6	18.1	21.3	15.5			
08/17/00	17.2	19.4	14.7	18.0	20.5	15.6	18.1	21.0	15.7			
08/18/00	16.3	18.2	13.8	17.1	19.6	14.6	17.2	20.3	14.6			
08/19/00	15.5	17.4	12.9	16.1	18.7	13.7	16.3	19.5	13.5			
08/20/00	15.2	17.4	12.6	15.9	18.4	13.4	16.0	19.4	13.2			
08/21/00	15.3	17.4	12.7	15.9	18.4	13.4	16.0	19.2	13.2			
08/22/00	15.5	17.8	12.9	16.1	18.7	13.5	16.2	19.5	13.4			
08/23/00	15.9	18.1	13.3	16.5	19.2	14.0	16.6	19.9	14.0			
08/24/00	16.1	18.4	13.5	16.8	19.4	14.1	16.9	20.2	14.0			
08/25/00	15.9	17.1	15.0	16.8	17.9	15.7	17.0	18.6	16.0			
08/26/00	15.7	17.8	13.8	16.4	18.6	14.4	16.9	20.3	14.4			
08/27/00	15.7	17.9	13.3	16.3	18.4	14.3	16.6	18.7	14.6			
08/28/00	16.1	17.3	14.4	16.7	18.4	15.2	16.7	18.7	15.1			
08/29/00	15.0	15.8	14.3	15.6	16.5	14.9	15.8	16.6	14.9			
08/30/00	14.7	16.0	13.5	15.1	16.5	14.1	15.2	16.8	14.1			
08/31/00	15.0	16.8	13.0	15.3	17.5	13.4	15.3	18.1	13.4			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SF JR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	13.3	15.2	12.1	13.7	15.2	12.3	13.6	14.9	12.1			
09/02/00	12.8	15.2	10.5	12.9	14.9	11.2	12.8	14.9	11.3			
09/03/00	13.9	16.0	11.6	14.2	16.5	12.1	14.2	17.1	12.1			
09/04/00	13.7	15.7	11.3	14.1	16.3	11.8	14.0	17.0	11.7			
09/05/00	13.1	14.9	10.9	13.5	15.7	11.3	13.4	16.3	11.2			
09/06/00	12.8	14.9	10.4	13.2	15.6	10.7	13.2	16.2	10.6			
09/07/00	13.3	15.5	10.7	13.6	16.0	11.0	13.5	16.6	10.7			
09/08/00	14.0	16.0	11.8	14.3	16.7	12.1	14.2	17.3	11.8			
09/09/00	13.8	15.8	11.5	14.2	16.5	11.8	14.1	17.1	11.7			
09/10/00	14.1	16.2	11.8	14.5	16.8	12.1	14.4	17.4	12.0			
09/11/00	14.4	16.3	12.1	14.8	17.1	12.3	14.7	17.8	12.1			
09/12/00	14.1	15.4	12.1	14.5	16.5	12.4	14.4	16.6	12.3			
09/13/00	14.9	16.8	12.9	15.4	17.8	13.2	15.5	18.6	13.0			
09/14/00	15.5	17.4	13.3	15.9	18.3	13.7	15.9	18.9	13.5			
09/15/00	15.3	17.0	13.2	15.8	18.1	13.7	15.8	18.7	13.4			
09/16/00	14.5	16.2	12.6	15.1	17.3	12.9	15.1	17.8	12.7			
09/17/00	14.7	16.6	12.4	15.1	17.6	12.9	15.2	18.2	12.7			
09/18/00	15.3	17.1	13.2	15.6	17.9	13.4	15.6	18.6	13.0			
09/19/00	15.5	17.3	13.3	16.0	18.4	13.7	15.9	18.9	13.4			
09/20/00	15.8	17.4	13.8	16.2	18.6	14.0	16.2	19.1	13.8			
09/21/00	15.7	17.3	14.0	16.0	17.6	14.1	15.9	18.6	14.0			
09/22/00	14.2	15.7	13.5	14.7	16.2	13.1	14.8	16.6	13.2			
09/23/00	13.1	14.7	11.2	13.3	15.4	11.3	13.2	15.9	11.0			
09/24/00	12.9	14.6	10.9	13.1	15.2	10.9	13.0	15.9	10.6			
09/25/00	13.0	14.7	11.0	13.2	15.4	11.0	13.1	15.9	10.7			
09/26/00	13.3	14.7	11.5	13.4	15.6	11.5	13.3	16.0	11.0			
09/27/00	13.2	14.7	11.3	13.4	15.6	11.5	13.3	16.0	11.2			
09/28/00	13.3	14.9	11.6	13.6	15.6	11.7	13.4	16.0	11.3			
09/29/00	13.3	14.9	11.5	13.6	15.6	11.7	13.5	16.2	11.3			
09/30/00	13.3	14.9	11.3	13.5	15.6	11.5	13.5	16.2	11.3			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SF JR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	13.3	14.9	11.6	13.6	15.7	11.7	13.5	16.2	11.3			
10/02/00	12.8	14.3	11.0	13.0	14.9	11.0	12.9	15.4	10.9			
10/03/00	12.8	14.3	11.0	12.9	14.8	11.0	12.8	15.2	10.7			
10/04/00	12.7	14.1	11.0	12.9	14.8	11.0	12.8	15.2	10.7			
10/05/00	12.7	14.1	10.9	12.8	14.8	10.9	12.7	15.2	10.7			
10/06/00	12.6	14.1	10.9	12.8	14.8	10.9	12.7	15.2	10.6			
10/07/00	12.5	13.6	11.0	12.7	14.3	11.0	12.6	14.9	10.7			
10/08/00	12.4	13.8	10.7	12.5	14.4	10.6	12.4	14.7	10.4			
10/09/00	11.7	12.7	10.5	11.9	13.7	10.4	11.7	13.8	10.1			
10/10/00	9.0	11.2	7.9	9.1	10.9	7.8	8.9	10.7	7.6			
10/11/00	7.8	8.7	6.8	7.9	9.0	6.9	7.8	9.2	6.6			
10/12/00	8.5	10.1	7.1	8.4	10.0	7.3	8.3	10.3	6.9			
10/13/00	8.7	10.2	7.0	8.7	10.3	7.2	8.6	10.9	6.9			
10/14/00	8.9	10.4	7.3	8.9	10.4	7.5	8.8	11.2	7.2			
10/15/00	8.9	10.4	7.3	9.0	10.4	7.5	8.9	11.2	7.2			
10/16/00	9.2	10.7	7.4	9.2	10.7	7.6	9.1	11.5	7.3			
10/17/00	9.3	10.7	7.8	9.4	10.9	7.8	9.3	11.5	7.5			
10/18/00	9.2	10.1	7.9	9.2	10.1	8.1	9.1	10.4	7.8			
10/19/00	9.3	10.7	7.8	9.3	10.9	7.8	9.2	11.3	7.5			
10/20/00	9.4	10.5	7.9	9.5	10.7	8.1	9.4	11.3	7.8			
10/21/00	8.5	9.6	7.3	8.6	9.6	7.2	8.5	9.6	7.0			
10/22/00	6.9	8.1	5.6	6.8	8.1	5.6	6.7	8.6	5.3			
10/23/00	7.0	8.8	5.4	7.0	8.4	5.5	6.8	9.0	5.2			
10/24/00	7.3	8.8	5.7	7.4	8.4	5.9	7.3	8.9	5.8			
10/25/00	7.8	9.0	6.4	7.8	9.0	6.5	7.8	9.6	6.4			
10/26/00	8.1	8.8	7.3	7.9	8.7	7.3	7.5	8.3	7.0			
10/27/00	7.5	8.7	6.2	7.6	8.7	6.4	7.5	9.2	6.2			
10/28/00	7.2	7.9	6.2	7.3	8.1	6.2	7.2	8.4	6.1			
10/29/00	6.6	7.4	5.6	6.6	7.3	5.6	6.4	7.2	5.5			
10/30/00	5.2	6.4	4.0	5.3	6.1	4.2	5.3	6.7	4.1			
10/31/00	4.6	5.7	3.5	4.7	5.5	3.7	4.7	5.9	3.4			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00									
05/02/00									
05/03/00									
05/04/00									
05/05/00									
05/06/00									
05/07/00									
05/08/00									
05/09/00									
05/10/00									
05/11/00									
05/12/00									
05/13/00									
05/14/00									
05/15/00									
05/16/00									
05/17/00									
05/18/00									
05/19/00									
05/20/00									
05/21/00									
05/22/00									
05/23/00									
05/24/00									
05/25/00									
05/26/00									
05/27/00									
05/28/00									
05/29/00									
05/30/00									
05/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00									
06/02/00									
06/03/00									
06/04/00									
06/05/00									
06/06/00									
06/07/00									
06/08/00									
06/09/00									
06/10/00									
06/11/00									
06/12/00									
06/13/00									
06/14/00									
06/15/00									
06/16/00									
06/17/00									
06/18/00									
06/19/00									
06/20/00									
06/21/00									
06/22/00									
06/23/00									
06/24/00									
06/25/00									
06/26/00									
06/27/00	12.3	14.7	10.7						
06/28/00	13.5	15.5	12.1						
06/29/00	15.8	18.7	13.0						
06/30/00	16.6	18.6	14.7						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	16.4	18.4	14.3						
07/02/00	16.1	18.1	13.9						
07/03/00	15.9	17.6	13.9						
07/04/00	15.3	17.1	13.2						
07/05/00	15.2	17.1	13.0						
07/06/00	15.5	17.4	13.3						
07/07/00	15.6	17.6	13.3						
07/08/00	15.7	17.7	13.3						
07/09/00	16.3	18.2	13.9						
07/10/00	16.9	18.9	14.6						
07/11/00	17.6	19.2	15.4						
07/12/00	17.6	19.2	15.5						
07/13/00	17.4	18.9	15.2						
07/14/00	17.4	18.7	15.4						
07/15/00	17.8	19.2	15.7						
07/16/00	17.8	18.9	16.3						
07/17/00	17.3	18.7	15.4						
07/18/00	17.1	18.6	14.9						
07/19/00	17.0	18.4	14.7						
07/20/00	17.2	18.7	14.9						
07/21/00	17.4	18.9	15.2						
07/22/00	17.8	19.0	15.7						
07/23/00	17.8	19.2	15.7						
07/24/00	17.8	19.2	15.8						
07/25/00	18.0	19.4	16.0						
07/26/00	17.8	19.2	16.0						
07/27/00	17.2	18.9	15.4						
07/28/00	17.0	18.6	15.0						
07/29/00	17.2	18.4	15.4						
07/30/00	18.2	19.8	16.5						
07/31/00	18.5	20.0	16.8						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	18.6	19.8	17.3						
08/02/00	17.5	18.6	16.3						
08/03/00	16.7	17.7	15.7						
08/04/00	16.4	18.4	13.9						
08/05/00	17.7	19.4	15.4						
08/06/00	18.3	19.7	16.5						
08/07/00	18.2	19.5	16.3						
08/08/00	17.9	19.4	15.8	18.3	20.2	17.0			
08/09/00	17.4	18.6	15.5	17.9	19.7	16.6			
08/10/00	16.7	17.7	14.7	17.2	19.1	15.9	19.1	20.5	17.9
08/11/00	16.3	17.7	14.1	16.8	18.6	15.2	18.7	20.0	17.5
08/12/00	16.4	17.7	14.3	16.7	18.7	15.2	18.7	20.2	17.5
08/13/00	16.5	17.9	14.6	16.9	18.7	15.4	18.7	20.2	17.5
08/14/00	H	H	H	16.9	18.9	15.4	18.6	20.0	17.5
08/15/00	H	H	H	17.3	19.2	15.9	18.8	20.4	17.6
08/16/00	H	H	H	17.7	19.7	16.3	19.0	20.5	17.9
08/17/00	H	H	H	17.7	19.5	16.5	19.2	20.5	18.1
08/18/00	H	H	H	17.0	18.9	15.7	18.8	20.0	17.8
08/19/00	H	H	H	16.2	18.1	14.9	17.9	19.1	17.0
08/20/00	H	H	H	15.7	17.6	14.3	17.4	18.9	16.4
08/21/00	H	H	H	15.6	17.6	14.3	17.3	18.8	16.2
08/22/00	H	H	H	15.6	17.6	14.3	17.3	18.8	16.2
08/23/00	H	H	H	16.0	17.9	14.8	17.5	18.8	16.5
08/24/00	H	H	H	16.3	18.2	14.9	17.6	19.1	16.5
08/25/00	H	H	H	17.1	18.6	15.9	18.2	19.4	17.3
08/26/00	H	H	H	17.4	19.1	16.5	19.0	20.4	18.1
08/27/00	H	H	H	17.3	19.2	16.2	19.3	20.5	18.4
08/28/00	H	H	H	16.9	17.9	16.0	19.1	20.2	18.3
08/29/00	H	H	H	16.6	17.1	16.0	18.5	19.1	18.1
08/30/00	H	H	H	15.9	16.6	15.2	18.0	18.8	17.6
08/31/00	H	H	H	15.4	17.0	14.4	17.7	18.8	17.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	H	H	H	14.2	14.9	13.1	16.6	17.5	16.0
09/02/00	H	H	H	13.0	14.4	12.3	15.8	16.7	15.1
09/03/00	H	H	H	13.5	15.2	12.6	15.5	16.7	14.6
09/04/00	H	H	H	13.5	15.1	12.4	15.2	16.5	14.3
09/05/00	H	H	H	13.0	14.6	12.0	14.6	15.7	13.5
09/06/00	H	H	H	12.7	14.3	11.3	14.3	15.6	13.2
09/07/00	H	H	H	12.8	14.6	11.3	14.3	15.6	13.2
09/08/00	H	H	H	13.3	15.1	12.0	14.6	15.9	13.5
09/09/00	H	H	H	13.5	15.1	12.3	14.8	16.0	13.8
09/10/00	H	H	H	13.7	15.4	12.4	15.0	16.2	14.0
09/11/00	H	H	H	14.0	15.7	12.7	15.3	16.5	14.3
09/12/00	H	H	H	14.1	15.4	12.9	15.2	16.0	14.5
09/13/00	H	H	H	14.4	15.7	13.4	15.6	16.7	14.8
09/14/00	H	H	H	15.3	17.0	14.0	16.3	17.5	15.4
09/15/00	H	H	H	15.4	16.8	14.3	16.7	17.8	15.7
09/16/00	H	H	H	15.0	16.5	13.7	16.6	17.6	15.6
09/17/00	H	H	H	14.8	16.3	13.5	16.3	17.5	15.2
09/18/00	H	H	H	15.0	16.5	13.8	16.5	17.6	15.6
09/19/00	H	H	H	15.3	16.6	14.0	16.6	17.6	15.7
09/20/00	H	H	H	15.6	17.0	14.3	16.8	17.9	15.9
09/21/00	H	H	H	15.7	17.1	14.6	17.0	17.9	16.2
09/22/00	H	H	H	14.7	15.5	14.0	16.5	17.1	15.7
09/23/00	H	H	H	13.3	14.4	12.3	15.3	16.0	14.5
09/24/00	H	H	H	12.6	13.8	11.5	14.5	15.4	13.7
09/25/00	H	H	H	12.4	13.7	11.3	14.2	15.1	13.4
09/26/00	H	H	H	12.6	13.8	11.5	14.1	14.9	13.2
09/27/00	12.1	13.4	10.6	12.7	14.0	11.7	14.0	14.9	13.2
09/28/00	12.4	13.8	10.9	12.8	14.1	11.8	14.2	14.9	13.4
09/29/00	12.6	13.8	11.2	12.9	14.1	12.0	14.3	15.2	13.4
09/30/00	12.4	13.8	10.7	12.9	14.1	12.0	14.3	15.2	13.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	12.4	13.5	11.1	12.9	14.1	12.0	14.3	15.1	13.5
10/02/00	12.0	13.2	10.4	12.6	13.7	11.7	14.1	14.8	13.2
10/03/00	11.9	13.1	10.3	12.4	13.4	11.5	13.7	14.6	13.1
10/04/00	11.7	12.9	10.3	12.2	13.4	11.3	13.6	14.2	12.7
10/05/00	11.6	12.9	10.3	12.2	13.4	11.2	13.4	14.2	12.7
10/06/00	11.6	12.8	10.1	12.1	13.2	11.2	13.4	14.1	12.5
10/07/00	11.8	13.1	10.3	12.2	13.2	11.2	13.4	14.1	12.7
10/08/00	11.5	12.6	10.1	12.3	13.4	11.3	13.4	14.1	12.7
10/09/00	11.1	12.3	9.7	11.6	12.3	10.9	13.1	13.6	12.7
10/10/00	9.1	11.4	8.3	10.0	11.2	8.6	12.0	12.9	11.2
10/11/00	7.9	8.6	7.0	8.1	8.7	7.5	10.6	11.2	10.1
10/12/00	8.3	9.7	7.3	8.0	9.0	7.5	9.8	10.4	9.3
10/13/00	8.4	9.8	7.2	8.2	9.0	7.5	9.4	10.1	8.7
10/14/00	8.7	10.1	7.3	8.3	9.3	7.6	9.5	10.2	8.8
10/15/00	8.9	10.1	7.6	8.6	9.5	7.8	9.6	10.4	9.0
10/16/00	9.1	10.4	7.8	8.8	9.8	8.1	9.9	10.7	9.3
10/17/00	9.3	10.4	8.0	9.1	10.0	8.4	10.2	10.8	9.4
10/18/00	9.2	10.0	8.3	9.2	10.0	8.6	10.3	11.0	9.8
10/19/00	9.1	10.4	7.8	9.0	9.8	8.3	10.4	11.0	9.8
10/20/00	9.4	10.4	8.3	9.2	10.1	8.6	10.4	10.8	9.9
10/21/00	8.9	10.0	8.3	9.0	9.6	8.1	10.0	10.4	9.3
10/22/00	7.3	8.1	6.3	7.6	8.3	6.7	8.7	9.3	8.2
10/23/00	7.1	8.4	5.8	6.8	7.5	6.1	8.1	8.7	7.6
10/24/00	7.8	8.9	6.7	7.4	8.1	6.6	8.2	8.8	7.7
10/25/00	8.2	9.2	7.2	7.9	8.3	7.5	8.5	9.0	8.2
10/26/00	7.9	8.6	7.5	7.9	8.3	7.3	8.8	9.1	8.7
10/27/00	7.6	8.6	6.7	7.2	7.8	6.6	8.4	8.8	7.9
10/28/00	7.6	8.1	6.7	7.4	7.9	7.0	8.5	8.8	8.1
10/29/00	7.0	7.8	6.1	7.0	7.2	6.2	8.4	8.5	7.9
10/30/00	5.9	6.9	5.2	5.9	6.2	5.5	7.3	7.7	6.8
10/31/00	5.4	6.1	4.5	5.2	5.6	4.7	6.6	7.1	6.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01												
05/19/01												
05/20/01	6.3	9.9	3.3									
05/21/01	6.4	10.3	3.7									
05/22/01	6.6	9.9	4.1									
05/23/01	6.7	9.9	4.4									
05/24/01	7.0	10.4	4.5									
05/25/01	7.4	11.2	4.8									
05/26/01	7.2	10.6	4.7									
05/27/01	7.0	10.1	4.5									
05/28/01	7.4	10.7	4.7									
05/29/01	8.1	11.6	5.3									
05/30/01	8.7	12.1	5.9									
05/31/01	9.3	12.9	6.4									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	9.3	12.6	6.9									
06/02/01	8.4	11.0	6.1									
06/03/01	7.9	10.9	5.0									
06/04/01	8.5	11.3	5.8									
06/05/01	9.3	12.3	6.4									
06/06/01	10.3	13.3	7.3									
06/07/01	10.9	13.7	8.1									
06/08/01	10.5	13.3	7.5	7.5	8.0	7.2	12.6	14.9	9.6	13.4	16.8	11.2
06/09/01	10.6	13.5	7.6	7.5	8.0	7.2	12.5	14.7	9.6	13.3	16.7	11.1
06/10/01	11.2	14.0	8.4	7.6	8.1	7.3	12.7	14.9	9.9	13.4	16.8	11.5
06/11/01	10.8	13.0	8.1	7.6	8.1	7.3	12.4	14.6	9.6	13.0	16.4	10.9
06/12/01	10.7	13.0	8.2	7.7	8.1	7.5	12.4	14.6	9.6	13.0	16.2	10.9
06/13/01	10.2	12.3	7.8	7.8	8.3	7.3	12.2	14.4	9.6	12.5	15.7	10.4
06/14/01	10.8	13.7	7.9	8.0	8.4	7.6	12.3	14.6	9.5	12.8	16.4	10.4
06/15/01	11.8	14.4	9.0	8.1	8.4	7.8	12.9	15.2	10.1	13.5	17.1	11.2
06/16/01	12.4	14.9	9.8	8.1	8.6	7.8	13.3	15.7	10.6	14.0	17.1	11.7
06/17/01	12.6	14.9	9.9	8.1	8.6	7.8	13.4	15.5	10.7	14.1	17.3	12.0
06/18/01	12.5	14.9	9.9	8.2	8.7	7.8	13.2	15.4	10.6	14.0	17.6	11.7
06/19/01	12.9	15.4	10.3	8.3	8.7	8.0	13.3	15.4	10.6	14.1	17.8	11.8
06/20/01	13.3	15.7	10.9	8.3	8.7	8.0	13.5	15.5	11.0	14.4	17.8	12.3
06/21/01	13.8	16.3	11.3	8.4	8.9	8.1	13.8	16.2	11.2	14.9	18.3	12.6
06/22/01	14.3	16.3	12.1	8.5	8.9	8.1	14.4	16.8	11.8	15.5	18.6	13.4
06/23/01	14.6	17.1	12.4	8.5	9.0	8.3	14.7	16.6	12.1	15.7	19.4	13.7
06/24/01	13.5	15.5	11.5	8.5	8.9	8.3	13.7	16.0	11.0	14.6	17.6	12.9
06/25/01	12.7	15.4	10.1	8.5	9.0	8.1	12.9	14.9	10.2	13.6	17.1	11.4
06/26/01	13.3	15.5	11.3	8.6	8.9	8.3	13.0	14.9	11.0	13.4	15.4	12.3
06/27/01	13.6	16.3	11.5	8.7	9.0	8.4	13.1	15.5	10.7	13.8	17.3	11.8
06/28/01	13.5	16.5	10.9	8.8	9.3	8.4	13.4	15.8	10.6	14.2	18.3	11.5
06/29/01	14.0	16.5	11.5	8.9	9.3	8.7	13.3	16.0	10.1	14.5	17.8	12.1
06/30/01	14.7	17.6	12.3	8.9	9.3	8.7	13.5	16.2	10.4	14.8	18.1	12.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	15.2	18.1	12.6	9.0	9.5	8.7	13.4	15.8	10.6	14.8	17.5	12.8
07/02/01	15.7	18.1	13.3	9.1	9.5	8.7	13.8	16.0	10.9	15.1	18.8	13.1
07/03/01	14.8	15.9	13.7	9.2	9.5	8.9	12.5	15.2	10.6	13.9	15.4	12.9
07/04/01	14.8	16.2	13.7	9.3	9.6	9.0	12.3	13.6	10.7	13.6	15.9	12.6
07/05/01	15.0	17.0	13.2	V	V	V	13.1	15.8	10.7	14.1	16.0	12.3
07/06/01	13.8	15.4	13.0	V	V	V	12.5	15.5	11.2	13.7	14.3	12.0
07/07/01	12.8	13.5	12.1	V	V	V	11.7	13.0	10.6	12.3	13.4	11.8
07/08/01	12.7	14.0	11.5	V	V	V	11.9	13.0	10.4	12.5	14.5	11.5
07/09/01	11.8	12.6	10.4	V	V	V	11.1	12.4	9.6	11.5	13.1	10.6
07/10/01	12.5	15.1	10.1	V	V	V	11.9	14.6	9.5	12.1	14.1	10.3
07/11/01	13.6	15.9	11.3	V	V	V	13.4	16.2	10.6	13.9	17.1	11.8
07/12/01	13.7	16.3	11.3	9.6	10.0	9.3	13.6	16.6	10.2	14.3	17.5	12.1
07/13/01	13.3	15.2	11.3	9.7	10.0	9.3	13.2	16.0	10.2	13.9	16.0	12.1
07/14/01	13.8	16.8	11.5	9.7	10.0	9.3	13.4	15.7	10.4	14.0	17.1	12.0
07/15/01	13.8	16.8	11.2	9.8	10.3	9.5	13.1	15.8	9.9	13.7	16.8	11.5
07/16/01	13.5	15.9	11.2	9.8	10.3	9.6	13.1	15.4	10.1	13.7	16.7	11.5
07/17/01	13.7	17.3	11.3	9.9	10.3	9.6	12.8	15.1	10.1	13.3	16.2	11.4
07/18/01	F	F	F	9.9	10.3	9.6	12.3	14.3	10.1	13.0	15.2	11.4
07/19/01	F	F	F	10.0	10.4	9.8	12.6	15.4	9.8	13.0	16.5	10.6
07/20/01	F	F	F	10.1	10.4	9.8	13.1	16.0	10.1	13.7	17.0	11.4
07/21/01	F	F	F	10.1	10.4	9.8	13.5	16.2	10.4	14.1	17.5	11.8
07/22/01	F	F	F	10.1	10.6	9.8	13.6	16.2	10.6	14.3	17.6	12.0
07/23/01	F	F	F	10.2	10.7	10.0	13.7	15.8	10.7	14.4	17.8	12.3
07/24/01	F	F	F	10.3	10.6	10.1	13.7	16.6	10.7	14.4	17.6	12.1
07/25/01	F	F	F	10.4	10.7	10.0	14.2	16.8	11.2	15.1	18.4	12.8
07/26/01	F	F	F	10.5	10.9	10.1	14.4	16.6	11.6	15.6	18.8	13.5
07/27/01	F	F	F	10.5	10.9	10.3	14.6	17.1	11.5	15.4	18.8	13.2
07/28/01	F	F	F	10.6	11.0	10.3	14.4	16.8	11.2	15.2	18.4	13.1
07/29/01	F	F	F	10.6	11.0	10.4	14.4	16.8	11.3	15.1	18.4	12.9
07/30/01	F	F	F	10.6	11.0	10.3	14.0	16.6	10.9	14.6	17.8	12.6
07/31/01	F	F	F	10.8	11.2	10.4	14.3	16.8	11.3	14.9	18.3	12.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	F	F	F	10.9	11.4	10.6	14.6	17.0	11.5	15.3	18.8	13.2
08/02/01	F	F	F	11.0	11.4	10.7	14.7	17.4	11.6	15.7	18.8	13.5
08/03/01	16.8	19.5	14.3	11.1	11.5	10.9	14.9	17.1	11.9	15.8	18.9	14.0
08/04/01	15.7	18.4	13.2	11.1	11.5	10.7	14.4	16.6	11.3	14.9	17.8	12.9
08/05/01	15.1	18.1	12.1	11.1	11.5	10.9	14.1	16.6	11.0	14.8	18.3	12.4
08/06/01	14.8	16.8	12.4	11.2	11.5	10.9	13.8	16.5	11.5	14.5	17.1	13.1
08/07/01	V	V	V	11.3	11.7	10.9	14.0	16.3	11.8	14.5	16.8	12.9
08/08/01	V	V	V	11.3	11.7	11.0	14.8	17.0	12.4	15.7	18.6	13.8
08/09/01	V	V	V	11.4	11.8	10.9	14.3	16.5	12.1	15.1	17.1	13.7
08/10/01	V	V	V	11.4	12.0	11.0	14.8	17.3	12.1	15.3	17.9	13.4
08/11/01	V	V	V	11.5	11.8	11.2	14.8	17.1	12.1	15.7	18.9	13.7
08/12/01	V	V	V	11.6	12.1	11.2	15.0	17.1	12.3	15.7	18.8	13.7
08/13/01	V	V	V	11.7	12.1	11.4	14.9	17.0	12.1	15.5	18.6	13.5
08/14/01	V	V	V	11.7	12.1	11.4	14.8	17.1	12.1	15.6	18.8	13.5
08/15/01	V	V	V	11.8	12.3	11.5	14.6	16.8	12.3	15.3	17.8	13.7
08/16/01	V	V	V	11.9	12.3	11.7	14.8	17.4	11.9	15.4	18.3	13.4
08/17/01	V	V	V	12.0	12.4	11.8	14.8	17.1	11.8	15.5	18.1	13.5
08/18/01	V	V	V	12.1	12.4	11.7	14.8	17.4	11.9	15.4	18.1	13.4
08/19/01	V	V	V	12.1	12.6	11.8	14.9	17.1	11.9	15.5	17.9	13.5
08/20/01	V	V	V	12.2	12.6	12.0	14.6	16.6	11.8	15.1	17.6	13.4
08/21/01	V	V	V	12.2	12.4	11.8	14.2	16.2	11.6	14.4	16.8	12.8
08/22/01	V	V	V	12.3	12.6	12.0	13.7	15.7	11.5	13.8	15.6	12.4
08/23/01	V	V	V	12.4	12.6	12.1	13.8	16.2	11.2	13.8	16.4	11.7
08/24/01	V	V	V	12.4	12.7	12.3	14.2	16.6	11.5	14.3	16.8	12.1
08/25/01	V	V	V	12.5	12.7	12.3	14.6	17.0	11.9	14.9	17.6	12.8
08/26/01	V	V	V	12.6	12.9	12.3	15.0	17.3	12.3	15.3	17.9	13.4
08/27/01	V	V	V	12.6	13.1	12.4	15.1	17.3	12.4	15.6	18.3	13.8
08/28/01	V	V	V	12.7	13.1	12.3	15.2	17.4	12.4	15.6	18.1	13.7
08/29/01	V	V	V	12.7	13.1	12.4	14.9	17.1	12.4	15.5	17.9	13.7
08/30/01	V	V	V	12.8	13.1	12.4	15.0	17.3	12.3	15.1	17.8	13.4
08/31/01	V	V	V	12.8	13.2	12.4	14.8	17.0	11.9	14.9	17.5	13.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	V	V	V	12.9	13.2	12.6	14.6	16.8	11.9	14.8	17.3	12.9
09/02/01	V	V	V	12.9	13.4	12.6	14.2	16.5	11.9	14.3	16.4	13.1
09/03/01	V	V	V	13.0	13.5	12.6	13.6	15.2	12.3	13.6	15.7	12.8
09/04/01	V	V	V	13.2	13.4	12.9	13.8	16.6	11.5	13.7	16.5	11.5
09/05/01	V	V	V	13.2	13.5	12.9	14.8	17.0	12.4	14.6	16.7	13.2
09/06/01	V	V	V	13.2	13.7	13.1	14.3	16.5	11.6	14.1	16.5	12.3
09/07/01	V	V	V	13.3	13.7	13.1	14.4	16.6	11.9	14.2	16.8	12.4
09/08/01	V	V	V	13.4	13.7	13.2	14.5	16.5	11.9	14.2	16.8	12.3
09/09/01	V	V	V	13.5	13.8	13.1	14.4	16.5	11.8	14.1	16.7	12.3
09/10/01	V	V	V	13.5	13.8	13.4	14.4	16.5	11.9	14.1	16.5	12.4
09/11/01	V	V	V	13.7	13.8	13.5	14.5	16.0	12.9	14.2	15.4	13.4
09/12/01	V	V	V	13.8	14.1	13.5	14.1	16.0	12.1	13.7	16.0	12.1
09/13/01	V	V	V	14.1	14.3	14.0	14.1	16.3	11.6	13.4	15.6	11.5
09/14/01	V	V	V	14.2	14.4	14.0	14.3	16.5	11.8	13.6	15.9	11.7
09/15/01	V	V	V	14.3	14.6	14.0	14.5	16.6	11.9	13.7	15.9	11.8
09/16/01	V	V	V	14.4	14.8	14.1	14.4	16.3	11.9	13.7	15.7	12.0
09/17/01	12.5	14.6	10.3	14.7	15.1	14.4	14.6	16.8	12.3	13.8	15.9	12.1
09/18/01	12.9	15.1	10.6	14.9	15.2	14.6	15.0	17.1	12.4	14.2	16.4	12.4
09/19/01	13.1	14.9	11.0	15.0	15.2	14.8	15.1	17.1	12.7	14.4	16.4	12.8
09/20/01	13.4	15.5	11.2	15.2	15.4	14.9	15.2	16.8	13.0	14.5	16.7	13.1
09/21/01	13.5	15.4	11.3	15.3	15.6	15.1	15.2	17.3	12.9	14.4	16.5	12.8
09/22/01	13.1	14.9	10.9	15.5	15.9	15.2	15.3	17.1	12.9	14.5	16.5	12.8
09/23/01	12.5	13.8	11.0	15.9	16.3	15.4	14.9	16.8	13.0	14.0	15.2	12.9
09/24/01	12.4	14.6	10.1	16.0	16.3	15.9	15.0	17.0	12.9	13.7	15.9	12.1
09/25/01	13.0	14.7	11.5	16.6	16.8	16.2	15.6	17.3	13.8	14.7	16.7	13.8
09/26/01	12.4	14.3	10.3	16.4	16.7	16.2	15.5	17.3	13.3	14.3	16.5	12.6
09/27/01	12.1	14.0	10.1	16.3	16.5	16.0	15.3	17.1	13.2	14.2	16.5	13.2
09/28/01	11.5	12.9	9.6	16.1	16.3	15.9	15.0	16.6	13.0	13.7	15.9	12.1
09/29/01	11.7	13.7	9.6	15.9	16.0	15.7	15.1	17.0	12.9	13.9	16.2	12.3
09/30/01	V	V	V	15.7	15.9	15.6	14.6	16.6	12.9	13.7	15.9	12.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SFSJR Upstream of Florence Lake			SFSJR Downstream of Florence Lake			SFSJR Downstream of Jackass Meadow			SFSJR Upstream of Hooper Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	V	V	V	15.7	15.9	15.6	14.5	16.2	12.7	13.2	14.3	12.0
10/02/01	V	V	V	15.5	15.9	15.4	14.5	16.3	12.9	13.7	15.6	12.3
10/03/01	V	V	V	15.4	15.7	15.2	14.9	16.2	13.6	13.7	16.4	11.8
10/04/01	V	V	V	15.3	15.6	15.2	14.9	15.8	13.6	13.6	16.2	11.8
10/05/01	V	V	V	15.3	15.6	15.2	14.4	15.5	13.3	13.3	15.7	12.1
10/06/01	V	V	V	15.2	15.4	15.1	13.8	14.6	12.6	12.5	14.9	10.9
10/07/01	V	V	V	15.0	15.2	14.8	13.3	14.4	11.9	11.9	14.3	10.3
10/08/01	V	V	V	14.8	14.9	14.8	13.2	14.1	12.6	11.8	12.9	10.7
10/09/01	V	V	V	14.6	14.8	14.3	12.8	13.5	11.6	11.2	13.4	9.5
10/10/01	V	V	V	14.2	14.4	14.0	12.4	13.5	11.2	10.8	12.9	9.0
10/11/01	V	V	V	14.0	14.1	13.8	12.2	13.0	11.5	10.7	12.6	9.4
10/12/01	V	V	V	13.6	13.8	13.4	11.8	13.2	10.7	10.5	13.2	8.7
10/13/01				13.3	13.5	13.1	12.1	13.2	10.6	10.6	13.2	8.7
10/14/01				13.1	13.4	12.9	11.8	13.2	10.4	10.4	12.6	8.7
10/15/01				13.0	13.4	12.7	11.9	12.9	10.7	10.1	13.1	8.0
10/16/01				13.0	13.2	12.9	12.0	12.9	10.7	9.5	14.9	6.4
10/17/01				12.8	12.9	12.6	11.8	12.9	10.9	9.5	13.4	6.9
10/18/01				12.6	12.9	12.4	11.5	12.4	10.2	8.8	14.0	6.3
10/19/01				12.4	12.7	12.1	11.3	12.4	10.2	8.7	12.8	5.9
10/20/01				12.3	12.4	12.1	11.2	12.1	10.2	9.1	14.1	5.9
10/21/01				12.3	12.7	12.0	11.3	12.1	10.2	8.8	12.9	6.6
10/22/01				11.9	12.1	11.7	10.8	11.8	9.5	7.7	12.1	5.0
10/23/01												
10/24/01												
10/25/01												
10/26/01												
10/27/01												
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	10.8	14.6	8.0	9.3	13.7	6.0						
05/02/01	9.8	13.4	7.5	8.1	12.0	5.3						
05/03/01	8.1	12.1	5.0	7.1	11.2	3.6						
05/04/01	8.5	12.8	4.9	8.0	12.2	4.1						
05/05/01	10.0	14.2	6.4	9.2	13.4	5.5						
05/06/01	11.1	15.3	7.7	9.7	14.2	6.1						
05/07/01	11.7	15.4	8.4	9.8	14.5	6.4						
05/08/01	11.9	16.1	8.7	9.9	14.6	6.6						
05/09/01	11.9	15.9	8.6	9.9	14.6	6.4						
05/10/01	12.2	16.1	8.9	10.9	15.3	6.7						
05/11/01	12.5	16.5	9.5	12.3	16.2	8.8						
05/12/01	10.3	11.4	9.0	10.1	11.2	8.9						
05/13/01	9.0	11.1	7.2	9.2	10.9	7.2						
05/14/01	10.0	14.3	6.6	10.4	14.3	6.4						
05/15/01	11.7	15.4	8.9	11.9	15.3	8.6						
05/16/01	12.6	16.4	10.0	13.0	16.4	9.8						
05/17/01	11.8	14.2	9.8	12.3	15.0	9.7						
05/18/01	11.0	14.5	8.4	11.6	15.0	8.6						
05/19/01	11.5	15.4	8.4	12.1	15.9	8.3						
05/20/01	12.6	16.7	9.4	13.2	17.0	9.4						
05/21/01	13.3	17.3	10.1	13.9	17.5	10.3						
05/22/01	12.9	15.6	10.6	13.6	15.9	10.8	V	V	V	15.1	16.8	12.6
05/23/01	12.3	15.6	10.3	12.9	15.3	10.3	V	V	V	13.6	15.6	10.7
05/24/01	12.2	15.6	9.8	13.0	16.1	10.0	V	V	V	14.2	16.5	11.7
05/25/01	12.9	16.4	10.4	13.6	16.9	10.5	V	V	V	14.9	17.3	12.4
05/26/01	12.8	16.5	10.3	13.6	17.2	10.3	V	V	V	14.4	17.1	11.0
05/27/01	12.4	15.6	10.1	13.2	16.5	10.0	V	V	V	14.8	17.0	12.3
05/28/01	12.4	16.2	9.8	13.1	16.7	9.7	V	V	V	14.7	17.1	12.1
05/29/01	13.0	16.8	10.3	13.8	17.3	10.3	V	V	V	15.2	17.9	12.6
05/30/01	13.7	17.6	10.9	14.5	18.1	10.9	V	V	V	16.1	18.7	13.5
05/31/01	14.4	18.5	11.5	15.3	19.3	11.7	V	V	V	16.9	19.6	14.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	14.6	18.3	12.1	15.4	18.8	12.2	V	V	V	17.2	19.2	14.9
06/02/01	13.5	16.8	11.4	14.3	17.3	11.5	V	V	V	16.3	18.3	14.3
06/03/01	12.2	16.2	9.5	13.0	16.4	9.5	V	V	V	14.7	17.0	12.3
06/04/01	12.4	16.4	9.5	13.2	16.7	9.7	V	V	V	14.7	17.3	12.3
06/05/01	12.9	16.8	10.1	13.6	17.2	10.2	V	V	V	15.1	17.6	12.6
06/06/01	13.7	17.8	10.6	14.5	18.3	10.6	V	V	V	16.0	18.7	13.4
06/07/01	15.0	18.4	11.5	15.2	18.6	11.7	V	V	V	16.9	19.4	14.4
06/08/01	14.1	18.1	11.0	14.9	18.3	11.2	V	V	V	16.6	19.1	14.3
06/09/01	14.0	18.1	11.0	14.8	18.3	11.2	V	V	V	16.6	19.1	14.1
06/10/01	14.1	18.1	11.3	15.4	18.7	11.5	V	V	V	16.7	19.2	14.4
06/11/01	13.6	17.3	10.9	14.3	17.4	11.0	V	V	V	16.2	18.3	14.0
06/12/01	13.6	17.4	10.7	14.3	17.8	10.9	V	V	V	15.9	18.3	13.7
06/13/01	13.1	16.8	10.2	13.9	17.1	10.6	V	V	V	15.7	18.1	13.4
06/14/01	13.3	17.6	10.1	14.0	17.6	10.4	V	V	V	15.7	18.4	13.2
06/15/01	14.1	18.2	10.9	14.8	18.4	11.0	V	V	V	16.4	19.2	13.8
06/16/01	14.5	18.6	11.5	15.3	18.9	11.7	V	V	V	17.1	19.7	14.4
06/17/01	14.7	18.4	11.8	15.4	18.6	12.1	V	V	V	17.2	19.6	14.9
06/18/01	14.6	18.7	11.5	15.3	18.7	11.8	V	V	V	17.2	19.7	14.6
06/19/01	14.8	18.9	11.5	15.5	19.1	11.8	V	V	V	17.4	20.0	14.8
06/20/01	15.2	19.2	12.1	16.0	19.4	12.4	V	V	V	17.8	20.4	15.2
06/21/01	15.5	19.5	12.4	16.3	19.7	12.7	V	V	V	18.3	20.7	15.9
06/22/01	16.1	19.7	13.3	17.0	20.4	13.7	V	V	V	18.8	21.3	16.5
06/23/01	16.3	20.2	13.5	17.0	20.2	13.8	V	V	V	19.0	21.5	16.7
06/24/01	15.3	18.7	12.9	16.2	18.9	13.4	V	V	V	18.1	20.4	16.2
06/25/01	14.3	18.2	11.2	15.0	18.4	11.7	V	V	V	17.0	19.2	14.6
06/26/01	13.8	15.8	12.1	14.5	16.0	12.4	V	V	V	16.5	17.6	15.2
06/27/01	14.5	18.4	11.8	15.2	18.7	12.1	V	V	V	16.7	19.7	14.1
06/28/01	14.8	19.2	11.3	15.6	19.2	11.8	16.6	19.4	14.0	17.4	20.2	14.8
06/29/01	15.3	19.2	12.3	16.1	19.5	12.6	17.3	19.9	14.6	18.0	20.5	15.6
06/30/01	15.7	19.7	12.7	16.5	20.0	12.9	17.7	20.3	14.9	18.5	21.0	16.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	15.6	19.0	12.9	16.3	18.9	13.2	17.6	19.4	15.5	18.6	20.8	16.5
07/02/01	16.0	19.5	13.2	16.7	20.0	13.5	17.9	20.3	15.5	18.7	21.3	16.3
07/03/01	14.8	16.0	13.6	15.8	16.8	14.0	17.0	18.4	15.8	17.7	18.7	16.8
07/04/01	14.5	16.8	13.2	15.3	17.3	13.5	16.4	17.4	14.9	17.1	17.9	15.9
07/05/01	15.1	17.9	12.7	15.7	18.2	13.2	16.5	17.6	15.1	17.3	19.2	15.9
07/06/01	14.4	15.2	13.0	15.1	16.5	14.3	16.2	17.1	15.5	16.6	17.1	15.9
07/07/01	13.2	14.4	12.4	14.0	15.2	12.9	15.0	15.8	14.1	15.5	16.3	14.9
07/08/01	13.1	14.7	11.8	13.8	15.5	12.1	14.9	16.0	13.3	15.5	17.0	14.0
07/09/01	12.2	14.0	10.9	12.9	14.8	11.0	14.0	15.1	12.4	14.7	16.0	13.2
07/10/01	12.5	14.6	10.4	13.0	15.1	10.6	13.7	15.4	11.8	14.2	15.9	12.6
07/11/01	14.3	17.9	11.8	14.9	18.2	11.7	15.6	18.9	12.9	16.3	19.4	13.5
07/12/01	14.9	18.9	12.1	15.6	19.1	12.1	16.5	19.4	13.8	17.2	19.7	14.8
07/13/01	14.5	17.6	12.1	15.2	17.9	12.1	16.2	18.2	13.8	16.9	18.9	14.9
07/14/01	14.7	18.4	11.9	15.3	18.6	12.1	16.3	18.7	13.8	17.1	19.7	14.8
07/15/01	14.3	18.1	11.5	15.0	18.2	11.7	16.2	18.7	13.5	16.9	19.2	14.6
07/16/01	14.2	17.9	11.5	14.9	18.1	11.5	16.0	18.4	13.5	16.7	19.1	14.4
07/17/01	13.9	16.9	11.5	14.6	17.4	11.7	16.0	18.6	13.5	16.8	19.4	14.4
07/18/01	13.8	17.1	11.5	14.8	17.9	11.7	16.1	18.9	13.5	16.9	19.4	14.3
07/19/01	13.7	17.6	10.9	14.6	18.1	11.2	15.9	18.4	13.3	16.8	19.2	14.4
07/20/01	14.3	18.1	11.3	15.0	18.4	11.5	16.1	18.9	13.5	16.9	19.6	14.4
07/21/01	14.6	18.6	11.6	15.3	18.7	11.8	16.4	19.0	13.8	17.2	19.7	14.6
07/22/01	14.8	18.7	11.8	15.5	18.9	12.1	16.6	19.2	14.1	17.3	19.9	14.9
07/23/01	15.1	19.0	12.1	15.8	19.2	12.4	16.9	19.5	14.3	17.6	20.2	15.2
07/24/01	15.2	18.9	12.3	15.9	19.1	12.6	17.1	19.5	14.7	17.9	20.5	15.6
07/25/01	15.6	19.2	12.7	16.3	19.4	12.9	17.4	19.7	14.9	18.1	20.5	15.7
07/26/01	16.5	20.5	13.6	17.2	20.4	14.0	18.3	20.8	15.8	19.0	21.5	16.7
07/27/01	16.2	20.0	13.3	17.1	20.0	13.8	18.3	20.5	16.0	19.1	21.5	17.0
07/28/01	15.9	19.7	13.0	16.6	19.7	13.4	17.8	20.3	15.4	18.6	21.0	16.2
07/29/01	15.7	19.5	12.7	16.4	19.5	13.0	17.5	20.0	15.2	18.3	20.8	15.9
07/30/01	15.2	18.9	12.3	15.9	18.9	12.6	17.0	19.2	14.7	17.8	20.2	15.6
07/31/01	15.5	19.4	12.4	16.1	19.4	12.7	17.2	19.9	14.7	17.9	20.5	15.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	16.0	20.0	12.9	16.6	19.9	13.0	17.6	20.3	15.2	18.4	21.0	15.9
08/02/01	16.4	20.2	13.6	17.2	20.4	14.0	18.3	20.8	15.8	19.0	21.5	16.7
08/03/01	16.6	20.3	14.0	17.3	20.4	14.1	18.4	20.8	16.2	19.2	21.5	17.0
08/04/01	15.5	18.9	13.0	16.3	18.9	13.4	17.5	19.4	15.4	18.3	20.4	16.2
08/05/01	15.4	19.5	12.4	16.0	19.4	12.4	17.0	19.7	14.4	17.7	20.4	15.2
08/06/01	15.1	17.6	12.9	15.7	17.8	13.0	16.7	17.8	15.1	17.2	18.3	15.9
08/07/01	15.3	17.7	13.0	16.3	19.1	13.4	17.4	19.9	15.1	18.0	20.4	15.6
08/08/01	16.3	20.2	13.8	16.8	19.7	14.0	17.7	19.5	15.8	18.3	19.9	16.7
08/09/01	16.0	18.9	14.0	16.8	19.1	14.1	17.9	19.9	16.0	18.6	20.7	16.7
08/10/01	15.8	19.0	13.3	16.4	18.9	13.7	17.6	19.4	15.7	18.4	20.4	16.5
08/11/01	16.3	20.2	13.5	16.8	19.9	13.5	17.7	20.3	15.2	18.4	21.0	15.9
08/12/01	16.4	20.0	13.6	17.0	20.0	13.8	17.9	20.2	15.8	18.6	21.0	16.5
08/13/01	16.2	19.8	13.5	16.8	19.9	13.7	17.9	20.3	15.5	18.6	21.2	16.3
08/14/01	16.2	19.8	13.5	16.9	19.9	13.7	17.9	20.3	15.7	18.7	21.0	16.3
08/15/01	15.9	19.2	13.5	16.5	19.2	13.7	17.6	19.7	15.7	18.3	20.4	16.3
08/16/01	16.0	19.7	13.3	16.7	19.9	13.5	17.6	20.0	15.2	18.3	20.7	16.0
08/17/01	16.0	19.2	13.6	16.6	19.5	13.5	17.6	19.5	15.2	18.2	20.0	16.2
08/18/01	16.2	19.7	13.8	16.8	19.9	13.7	17.7	20.0	15.4	18.4	20.7	16.2
08/19/01	16.1	19.5	13.8	16.7	19.7	13.7	17.7	19.9	15.4	18.4	20.5	16.3
08/20/01	15.7	19.0	13.5	16.3	19.2	13.4	17.2	19.5	15.1	17.9	20.0	15.9
08/21/01	14.8	17.9	12.7	15.4	17.9	12.9	16.4	18.2	14.4	17.1	18.9	15.2
08/22/01	14.1	16.8	12.3	14.5	16.6	12.1	15.3	17.0	13.5	15.9	17.5	14.3
08/23/01	14.0	17.4	11.5	14.5	17.4	11.3	15.1	17.4	12.9	15.7	18.1	13.5
08/24/01	14.6	18.1	12.1	15.0	17.9	11.8	15.7	18.1	13.3	16.3	18.6	14.0
08/25/01	15.3	18.9	12.7	15.7	18.7	12.6	16.4	19.0	14.1	17.1	19.4	14.8
08/26/01	15.8	19.4	13.3	16.3	19.2	13.2	17.1	19.5	14.6	17.7	20.0	15.4
08/27/01	16.2	19.7	13.8	16.7	19.5	13.7	17.5	19.9	15.2	18.1	20.4	15.9
08/28/01	16.1	19.5	13.8	16.7	19.5	13.7	17.5	19.7	15.2	18.2	20.4	16.0
08/29/01	16.0	19.2	13.8	16.6	19.2	13.8	17.5	19.5	15.4	18.1	20.2	16.2
08/30/01	15.7	18.9	13.5	16.3	18.9	13.5	17.2	19.4	15.2	17.8	19.9	15.9
08/31/01	15.3	18.7	13.2	15.8	18.4	13.0	16.6	18.9	14.6	17.3	19.4	15.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	15.1	18.4	12.9	15.6	18.2	12.7	16.3	18.6	14.1	17.0	19.2	14.9
09/02/01	14.7	17.3	12.9	15.1	17.1	12.7	15.9	17.6	14.1	16.6	18.3	14.9
09/03/01	13.9	15.8	12.7	14.3	15.7	12.7	15.2	16.0	14.1	15.7	16.8	14.8
09/04/01	14.0	16.8	11.5	14.3	17.0	11.5	14.9	17.4	12.6	15.5	17.9	13.2
09/05/01	14.8	17.7	13.0	15.2	17.9	12.7	15.9	18.2	14.0	16.5	18.9	14.4
09/06/01	14.3	17.6	11.9	14.5	17.1	11.7	15.2	17.3	12.9	15.8	17.9	13.8
09/07/01	14.4	17.7	12.1	14.7	17.4	11.8	15.3	17.6	13.0	15.9	18.1	13.7
09/08/01	14.4	17.6	12.1	14.7	17.3	11.8	15.2	17.4	13.0	15.8	17.9	13.8
09/09/01	14.2	17.6	11.9	14.5	17.1	11.7	15.1	17.4	13.0	15.7	17.9	13.7
09/10/01	14.2	17.4	11.9	14.4	17.0	11.7	14.9	17.1	13.0	15.6	17.6	13.7
09/11/01	14.2	15.8	13.0	14.4	15.9	12.9	14.8	15.5	14.0	15.3	16.2	14.4
09/12/01	13.7	16.6	11.8	14.0	16.2	11.5	14.4	16.6	12.6	14.9	17.1	13.1
09/13/01	13.4	16.3	11.2	13.6	16.0	10.9	14.0	16.0	11.9	14.5	16.5	12.6
09/14/01	13.5	16.6	11.3	13.6	16.2	10.9	13.9	16.2	11.8	14.5	16.5	12.4
09/15/01	13.6	16.6	11.5	13.7	16.2	11.0	14.0	16.2	11.9	14.5	16.5	12.6
09/16/01	13.5	16.5	11.5	13.6	16.0	11.0	13.8	16.0	11.8	14.4	16.3	12.4
09/17/01	13.7	16.6	11.6	13.7	16.2	11.2	14.0	16.2	11.9	14.5	16.5	12.6
09/18/01	14.0	17.1	12.1	14.1	16.6	11.5	14.3	16.5	12.1	14.8	16.8	12.9
09/19/01	14.2	16.8	12.4	14.3	16.6	11.8	14.6	16.6	12.6	15.1	17.0	13.2
09/20/01	14.4	17.1	12.7	14.4	16.5	12.1	14.6	16.6	12.7	15.2	17.1	13.4
09/21/01	14.3	17.1	12.3	14.3	16.6	11.8	14.6	16.6	12.6	15.1	17.0	13.2
09/22/01	14.2	16.8	12.4	14.3	16.6	11.8	14.5	16.2	12.6	14.9	16.7	13.2
09/23/01	13.7	15.7	12.4	13.7	15.4	11.8	13.9	15.2	12.6	14.3	15.6	13.1
09/24/01	13.3	15.8	11.3	13.2	15.2	10.9	13.5	15.4	11.6	14.0	15.9	12.1
09/25/01	14.4	16.9	13.0	14.4	16.6	12.6	14.3	16.5	12.7	14.8	16.8	13.1
09/26/01	13.9	16.8	11.9	13.8	16.0	11.3	14.0	15.8	12.1	14.5	16.3	12.7
09/27/01	13.8	16.6	12.1	13.6	15.9	11.2	13.6	15.4	11.9	14.0	15.9	12.4
09/28/01	13.2	16.0	11.3	13.1	15.2	10.7	13.2	15.1	11.5	13.7	15.4	12.0
09/29/01	13.5	16.3	11.5	13.3	15.5	10.9	13.2	15.2	11.3	13.7	15.6	11.8
09/30/01	13.4	15.5	11.5	13.3	15.4	10.9	13.1	14.3	11.5	13.3	14.1	12.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Crater Creek			SFSJR Upstream of Bear Creek			SFSJR Upstream of Mono Hot Springs			SFSJR Upstream of Camp 62 Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	12.8	14.9	11.3	12.9	14.3	11.2	13.2	14.4	11.8	13.6	15.2	12.3
10/02/01	13.3	15.8	11.5	13.3	15.5	10.9	13.1	14.9	11.3	13.5	15.2	11.8
10/03/01	13.3	15.8	11.0	13.3	15.1	11.2	13.7	15.4	12.1	14.2	16.5	12.3
10/04/01	13.3	15.7	11.3	13.4	14.9	11.5	13.7	15.4	12.3	14.3	16.3	12.3
10/05/01	13.0	15.0	11.3	13.0	14.3	11.5	13.3	14.7	12.1	13.9	15.7	12.3
10/06/01	12.2	14.4	10.2	12.3	13.7	10.4	12.5	14.1	11.3	13.1	14.9	11.3
10/07/01	11.5	13.8	9.5	11.5	13.0	9.6	11.8	13.3	10.4	12.4	14.3	10.6
10/08/01	11.3	12.7	9.9	11.3	12.3	9.9	11.5	12.7	10.6	12.0	13.4	10.6
10/09/01	10.8	12.7	8.9	10.8	12.0	9.2	11.0	12.4	9.8	11.6	13.4	9.8
10/10/01	10.2	12.4	8.1	10.1	11.5	8.3	10.2	11.6	9.0	10.8	12.6	9.0
10/11/01	10.2	11.8	8.5	10.0	11.3	8.6	10.0	11.2	9.0	10.4	11.8	9.0
10/12/01	10.2	12.7	8.1	10.2	12.0	8.3	10.3	12.3	8.7	10.8	13.1	8.7
10/13/01	10.2	12.6	7.9	10.1	11.8	8.1	10.2	11.8	8.7	10.8	12.7	8.7
10/14/01	9.9	12.3	7.6				9.9	11.5	8.4	10.4	12.3	8.6
10/15/01	10.2	12.3	8.1				10.1	11.6	8.7	10.6	12.6	8.7
10/16/01	10.3	12.1	8.4				10.3	11.6	9.0	10.7	12.6	9.0
10/17/01	10.1	11.8	8.4				10.2	11.3	9.2	10.7	12.1	9.3
10/18/01	9.8	11.8	7.8				9.9	11.5	8.5	10.4	12.3	8.6
10/19/01	9.6	11.3	7.8				9.6	10.9	8.5	10.1	11.5	8.6
10/20/01	9.6	11.3	7.8				9.6	11.0	8.5	10.2	12.0	8.6
10/21/01	9.3	11.0	7.9				9.3	10.7	8.2	9.9	11.7	8.4
10/22/01	8.9	10.9	7.2				8.7	10.1	7.6	9.3	10.9	7.6
10/23/01							8.8	10.4	7.8	9.3	11.2	7.6
10/24/01							8.5	9.8	7.3			
10/25/01							8.2	9.6	7.0			
10/26/01							8.0	9.2	6.8			
10/27/01							7.8	9.2	6.8			
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SFSJR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01												
05/19/01												
05/20/01												
05/21/01												
05/22/01	15.2	16.8	13.0									
05/23/01	13.9	15.7	11.0	14.9	16.4	12.9	15.4	17.0	13.4			
05/24/01	14.4	16.6	11.9	15.2	17.9	12.5	15.6	19.1	12.6			
05/25/01	15.0	17.3	12.7	15.8	18.7	13.2	16.2	20.1	13.1			
05/26/01	14.6	16.9	11.5	15.4	17.9	13.3	15.8	18.9	13.4			
05/27/01	14.9	16.8	12.6	15.6	18.8	13.0	15.8	19.4	12.8			
05/28/01	14.8	16.9	12.6	15.6	18.7	13.0	15.8	19.4	12.8			
05/29/01	15.4	17.7	12.7	16.1	19.3	13.2	16.3	20.1	13.1			
05/30/01	16.2	18.5	13.6	17.0	20.3	13.9	17.2	20.9	13.8			
05/31/01	17.0	19.4	14.4	17.9	21.1	14.7	18.1	21.9	14.6			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SFSJR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	17.2	19.4	15.0	18.1	21.1	15.3	18.3	21.7	15.2			
06/02/01	16.3	18.4	14.3	17.1	20.1	14.5	17.2	20.4	14.5			
06/03/01	14.8	16.8	12.4	15.6	18.7	12.7	15.7	19.1	12.6			
06/04/01	14.8	17.1	12.2	15.5	18.8	12.5	15.7	19.4	12.4			
06/05/01	15.2	17.4	12.7	15.8	19.2	12.9	15.9	19.4	12.8			
06/06/01	16.1	18.7	13.3	16.8	20.5	13.5	16.9	20.9	13.4			
06/07/01	16.9	19.4	14.3	17.7	21.1	14.5	17.8	21.4	14.3			
06/08/01	16.7	19.2	14.1	17.6	21.0	14.2	17.7	21.2	14.1			
06/09/01	16.6	19.0	13.9	17.3	20.6	14.2	17.5	21.0	14.1			
06/10/01	16.7	19.2	14.3	17.4	20.6	14.5	17.5	21.0	14.3			
06/11/01	16.2	18.4	13.8	17.0	20.1	14.1	17.1	20.5	13.8			
06/12/01	16.0	18.4	13.5	16.7	20.1	13.8	17.0	20.5	13.7			
06/13/01	15.8	18.2	13.2	16.4	19.8	13.3	16.5	20.1	13.1	15.7	18.2	12.9
06/14/01	15.8	18.4	13.0	16.6	20.0	13.3	16.7	20.4	13.2	15.8	18.6	12.9
06/15/01	16.5	19.2	13.6	17.3	21.0	13.9	17.3	21.2	13.7	16.3	19.0	13.3
06/16/01	17.1	19.8	14.3	17.9	21.5	14.4	17.9	21.5	14.3	16.9	19.5	14.0
06/17/01	17.3	19.7	14.7	18.1	21.3	15.0	18.2	21.4	14.8	17.1	19.4	14.4
06/18/01	17.3	19.7	14.4	18.0	21.5	14.7	18.0	21.5	14.6	16.9	19.5	14.1
06/19/01	17.5	20.0	14.7	18.2	21.8	14.9	18.3	22.0	14.6	17.1	19.7	14.3
06/20/01	17.9	20.5	15.2	18.7	22.1	15.5	18.8	22.4	15.2	17.5	20.0	14.7
06/21/01	18.4	21.0	15.7	19.2	22.6	16.0	19.3	22.9	15.7	18.1	20.7	15.2
06/22/01	19.0	21.6	16.5	19.9	23.3	16.8	19.9	23.4	16.7	18.6	21.0	16.0
06/23/01	19.2	21.6	16.6	20.0	23.6	16.9	20.0	23.4	16.8	18.7	21.0	16.2
06/24/01	18.3	20.5	16.0	19.0	22.1	16.4	19.1	22.2	16.4	17.8	19.9	15.5
06/25/01	17.1	19.4	14.6	17.9	21.1	14.9	17.8	21.4	14.6	16.6	18.7	14.0
06/26/01	16.7	18.1	15.4	17.8	20.3	15.5	17.9	20.4	15.4	16.6	18.1	14.7
06/27/01	16.9	19.8	14.3	17.8	21.3	14.9	18.1	21.5	15.1	16.9	19.5	14.4
06/28/01	17.7	20.3	14.7	18.4	22.3	14.9	18.3	22.0	14.6	17.0	19.7	14.1
06/29/01	18.2	20.6	15.4	19.1	22.6	15.8	19.1	22.7	15.6	17.8	20.3	14.9
06/30/01	18.7	21.1	16.0	19.6	23.3	16.3	19.7	23.4	16.2	18.4	20.8	15.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SFSJR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	18.9	21.5	16.5	20.0	23.6	16.8	20.0	23.9	16.5	17.9	19.0	15.8
07/02/01	18.9	21.8	16.5	19.8	23.3	16.9	19.9	23.2	17.1	17.9	20.0	15.7
07/03/01	18.0	18.9	16.9	18.8	20.6	17.4	19.0	20.4	17.3	18.2	19.0	16.6
07/04/01	17.4	18.5	16.1	18.2	20.5	16.8	18.6	20.2	17.0	17.9	19.2	16.5
07/05/01	17.6	19.7	15.8	18.2	20.6	16.1	18.4	20.5	16.4	17.9	19.4	16.2
07/06/01	16.8	17.4	16.0	17.5	18.2	16.6	17.8	18.8	17.0	17.4	18.6	16.8
07/07/01	15.7	16.5	15.2	16.4	17.4	15.7	16.7	17.6	15.9	16.4	17.1	15.7
07/08/01	15.8	17.6	14.1	16.5	19.7	14.4	16.7	19.4	14.5	16.5	18.2	14.4
07/09/01	15.0	16.8	13.3	16.0	18.5	13.9	16.2	18.6	14.0	16.0	17.4	14.1
07/10/01	14.4	16.0	12.9	H	H	H	15.6	17.3	13.5	15.5	17.1	13.7
07/11/01	16.4	19.4	13.5	H	H	H	17.1	20.9	13.7	16.5	19.4	13.5
07/12/01	17.4	19.8	14.7	H	H	H	18.2	22.0	14.9	17.5	20.3	14.7
07/13/01	17.1	18.9	15.0	H	H	H	17.9	20.7	14.9	17.2	19.2	14.9
07/14/01	17.4	19.8	14.9	H	H	H	18.2	21.9	14.9	17.5	20.0	14.7
07/15/01	17.1	19.4	14.6	H	H	H	17.9	21.4	14.6	17.3	19.7	14.4
07/16/01	16.9	19.0	14.4	17.8	20.8	14.7	17.7	21.0	14.5	17.1	19.4	14.4
07/17/01	17.0	19.5	14.4	17.7	21.0	14.7	17.6	20.4	14.5	17.0	19.4	14.4
07/18/01	17.1	19.5	14.4	18.1	21.3	15.2	18.2	21.7	14.9	17.5	20.0	14.7
07/19/01	17.1	19.4	14.6	18.0	21.3	15.0	18.1	21.5	14.9	17.5	19.9	14.7
07/20/01	17.1	19.5	14.6	18.0	21.3	14.9	18.0	21.4	14.8	17.4	19.7	14.6
07/21/01	17.4	19.7	14.7	18.2	21.8	15.2	18.2	21.5	14.9	17.4	19.7	14.6
07/22/01	17.5	19.8	14.9	18.2	21.6	15.2	18.3	21.9	14.9	17.5	20.0	14.6
07/23/01	17.8	20.3	15.2	18.5	22.0	15.5	18.6	22.0	15.2	17.7	20.2	14.9
07/24/01	18.2	20.6	15.5	19.0	22.5	15.8	19.0	22.7	15.6	18.1	20.5	15.2
07/25/01	18.4	20.8	15.8	19.3	22.8	16.3	19.5	22.9	16.0	18.6	20.8	15.7
07/26/01	19.2	21.6	16.6	20.0	23.1	17.1	20.2	23.9	17.0	19.3	21.8	16.6
07/27/01	19.4	21.6	16.8	20.2	23.6	17.1	20.1	23.5	16.8	19.2	21.5	16.5
07/28/01	18.9	21.3	16.1	19.7	23.3	16.6	19.7	23.0	16.4	18.7	20.8	16.0
07/29/01	18.5	21.0	15.8	19.3	23.0	16.3	19.4	22.9	16.0	18.4	20.8	15.7
07/30/01	18.0	20.2	15.5	18.7	22.1	15.8	18.7	21.9	15.6	17.8	19.9	15.2
07/31/01	18.1	20.5	15.4	18.8	22.5	15.8	18.8	22.4	15.6	17.9	20.3	15.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SFSJR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	18.6	21.0	15.8	19.3	23.0	16.3	19.3	22.9	15.9	18.3	20.8	15.5
08/02/01	19.2	21.6	16.6	19.9	23.5	16.9	20.0	23.4	16.7	19.0	21.3	16.3
08/03/01	19.4	21.5	16.9	20.1	23.6	17.4	20.1	23.4	17.1	19.3	21.5	16.8
08/04/01	18.5	20.5	16.1	19.2	22.6	16.4	19.1	22.4	16.0	18.4	20.3	15.8
08/05/01	18.0	20.3	15.2	18.8	22.3	15.7	18.7	22.0	15.2	17.9	20.2	15.1
08/06/01	17.4	18.4	15.8	18.0	20.1	16.1	18.1	20.1	15.7	17.6	18.9	15.5
08/07/01	18.1	20.5	15.7	18.5	21.8	15.8	18.6	21.5	15.7	17.8	20.2	15.4
08/08/01	18.5	20.0	16.8	19.4	22.8	17.2	19.6	22.4	17.0	18.8	20.8	16.8
08/09/01	18.9	21.0	16.6	19.6	23.3	16.6	19.7	23.0	16.4	18.9	21.2	16.2
08/10/01	18.7	21.0	16.6	19.9	23.6	17.1	20.1	23.4	17.0	19.3	21.3	16.8
08/11/01	18.5	21.0	15.8	19.4	23.0	16.4	19.6	22.9	16.4	18.9	20.8	16.2
08/12/01	18.9	21.0	16.5	19.5	23.1	16.8	19.5	22.7	16.4	18.8	21.0	16.2
08/13/01	18.8	21.1	16.1	19.5	23.0	16.6	19.5	22.7	16.2	18.6	20.8	16.0
08/14/01	18.9	21.1	16.3	19.6	23.1	16.8	19.5	22.9	16.4	18.7	21.0	16.0
08/15/01	18.5	20.3	16.3	19.2	22.1	16.8	19.1	22.0	16.4	18.4	20.2	16.0
08/16/01	18.6	20.8	16.0	19.3	22.6	16.4	19.3	22.7	16.0	18.5	20.8	15.8
08/17/01	18.5	20.5	16.1	19.1	22.5	16.4	19.2	22.0	16.2	18.5	20.3	16.0
08/18/01	18.6	20.8	16.3	19.4	22.6	16.4	19.4	22.7	16.2	18.7	20.8	16.0
08/19/01	18.6	20.6	16.3	19.2	22.3	16.4	19.3	22.4	16.2	18.6	20.7	16.0
08/20/01	18.1	20.2	15.8	18.7	22.0	16.1	18.8	21.9	15.9	18.1	20.0	15.7
08/21/01	17.3	19.0	15.2	17.7	20.6	15.5	17.8	20.7	15.2	17.2	18.9	15.1
08/22/01	16.1	17.4	14.4	16.6	18.7	14.7	16.6	18.9	14.5	16.0	17.6	14.3
08/23/01	16.0	18.1	13.5	16.4	19.7	13.6	16.4	19.7	13.2	15.8	17.9	13.2
08/24/01	16.5	18.7	13.9	17.0	20.1	14.1	17.0	20.4	13.7	16.4	18.7	13.7
08/25/01	17.3	19.5	14.7	17.8	21.1	14.9	17.8	21.2	14.6	17.2	19.5	14.4
08/26/01	17.9	20.2	15.4	18.5	21.8	15.7	18.4	21.7	15.2	17.8	20.0	15.2
08/27/01	18.4	20.5	16.0	18.9	22.1	16.1	18.9	22.2	15.9	18.3	20.3	15.7
08/28/01	18.4	20.5	16.0	19.0	22.1	16.3	18.9	22.2	15.9	18.3	20.3	15.8
08/29/01	18.3	20.2	16.1	18.8	21.8	16.3	18.8	21.7	16.0	18.3	20.0	16.0
08/30/01	18.0	19.8	15.8	18.5	21.5	16.1	18.5	21.4	15.9	17.9	19.7	15.7
08/31/01	17.5	19.4	15.4	18.1	21.0	15.7	18.0	21.0	15.2	17.5	19.4	15.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SFSJR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	17.2	19.2	14.9	17.8	20.8	15.2	17.8	20.9	14.8	17.2	19.0	14.7
09/02/01	16.8	18.4	14.9	17.5	20.1	15.0	17.5	20.4	14.8	17.1	18.7	14.7
09/03/01	16.0	17.6	14.9	16.7	19.3	15.3	16.8	18.4	15.1	16.6	17.6	15.1
09/04/01	15.6	17.9	13.3	16.2	19.5	13.5	16.5	19.7	13.4	16.2	18.4	13.7
09/05/01	16.7	18.7	14.4	17.0	20.0	14.7	17.0	20.1	14.3	16.8	18.7	14.6
09/06/01	16.0	17.7	13.6	16.5	19.3	13.9	16.4	19.6	13.5	16.1	17.9	13.7
09/07/01	16.0	17.9	13.6	16.4	19.5	13.8	16.3	19.6	13.4	16.0	17.9	13.5
09/08/01	16.0	17.9	13.6	16.4	19.5	13.8	16.3	19.4	13.2	15.9	17.8	13.5
09/09/01	15.9	17.7	13.6	16.3	19.3	13.8	16.2	19.2	13.4	15.9	17.8	13.5
09/10/01	15.7	17.7	13.5	16.1	18.8	13.8	16.0	18.9	13.2	15.7	17.4	13.3
09/11/01	15.5	16.5	14.6	15.8	17.2	14.7	15.8	17.3	14.5	15.7	16.6	14.6
09/12/01	15.0	16.9	12.9	15.4	18.7	12.9	15.4	18.4	12.6	15.2	17.0	13.0
09/13/01	14.7	16.3	12.4	15.1	17.7	12.7	15.0	17.9	12.3	14.9	16.6	12.6
09/14/01	14.6	16.3	12.2	14.9	17.6	12.4	14.8	17.8	12.0	14.6	16.3	12.3
09/15/01	14.6	16.3	12.6	14.9	17.7	12.5	14.8	17.8	12.0	14.6	16.3	12.3
09/16/01	14.5	16.1	12.4	14.7	17.4	12.4	14.6	17.5	12.0	14.5	16.2	12.1
09/17/01	14.6	16.3	12.6	14.9	17.7	12.5	14.8	17.8	12.1	14.6	16.3	12.3
09/18/01	14.9	16.6	12.7	15.2	18.0	12.9	15.1	18.1	12.3	14.8	16.6	12.6
09/19/01	15.2	16.9	13.2	15.4	18.0	13.2	15.3	18.3	12.6	15.1	16.8	12.9
09/20/01	15.3	16.9	13.3	15.7	18.4	13.5	15.6	18.4	12.9	15.3	17.0	13.0
09/21/01	15.2	16.8	13.2	15.5	18.2	13.3	15.5	18.3	12.9	15.2	16.8	13.0
09/22/01	15.0	16.6	13.2	15.3	17.7	13.2	15.2	17.8	12.8	15.0	16.5	12.9
09/23/01	14.4	15.5	13.0	14.6	16.6	13.0	14.6	16.5	12.6	14.4	15.5	12.7
09/24/01	14.1	15.8	12.1	14.3	17.1	11.9	14.4	17.5	11.5	14.2	16.3	11.8
09/25/01	14.8	16.5	13.0	15.2	17.7	13.5	15.3	17.9	13.4	15.1	16.6	13.5
09/26/01	14.6	16.0	12.7	14.7	17.4	12.5	14.6	17.3	12.0	14.3	15.7	12.3
09/27/01	14.1	15.5	12.2	14.3	16.9	12.2	14.2	16.8	11.7	13.9	15.4	12.0
09/28/01	13.7	15.2	11.8	13.7	16.3	11.6	13.6	16.2	11.1	13.4	14.7	11.5
09/29/01	13.7	15.4	11.6	13.8	16.4	11.6	13.6	16.5	11.1	13.3	14.9	11.3
09/30/01	13.3	14.4	11.8	13.5	15.2	11.6	13.3	15.6	11.1	13.1	14.6	11.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Bolsillo Creek			SFSJR Upstream of Camp 61 Creek			SFSJR Upstream of Mono Creek			SFSJR Upstream of Warm Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	13.6	15.2	12.1	13.3	15.2	11.5	13.1	14.9	11.1	13.1	14.3	11.5
10/02/01	13.6	15.2	11.6	14.0	16.6	11.8	13.7	16.5	11.2	13.4	15.2	11.5
10/03/01	14.2	15.8	12.1	14.2	17.4	11.8	14.1	16.5	11.4	13.8	15.1	11.8
10/04/01	14.3	15.5	12.4	14.4	17.6	12.2	14.2	16.5	11.7	13.9	14.9	12.1
10/05/01	14.0	15.0	12.4	14.0	16.9	12.2	13.9	15.9	11.7	13.6	14.6	12.1
10/06/01	13.1	14.3	11.3	13.2	16.0	11.3	13.0	15.1	10.7	12.8	13.8	11.2
10/07/01	12.4	13.6	10.5	12.5	15.3	10.4	12.2	14.5	9.8	12.0	12.9	10.2
10/08/01	12.1	13.0	10.7	12.0	13.6	10.7	11.8	13.1	10.1	11.7	12.4	10.6
10/09/01	11.6	12.7	9.8	11.6	14.2	9.6	11.4	13.4	9.0	11.2	12.0	9.6
10/10/01	10.8	11.9	9.0	10.8	13.5	8.8	10.6	12.6	8.3	10.5	11.6	8.9
10/11/01	10.4	11.5	9.0	10.4	12.4	9.0	10.2	11.8	8.4	10.2	11.0	8.9
10/12/01	10.7	12.4	8.7	10.7	13.8	8.4	10.5	13.1	7.8	10.3	11.6	8.4
10/13/01	10.8	12.2	8.8	10.7	13.6	8.4	10.5	12.8	7.7	10.3	11.5	8.2
10/14/01	10.4	11.8	8.4	10.4	13.0	8.4	10.2	12.4	7.5	10.0	11.3	8.1
10/15/01	10.6	12.1	8.7	10.6	13.5	8.7	10.5	12.8	8.1	10.3	11.6	8.5
10/16/01	10.8	12.1	9.0	10.8	13.3	8.8	10.6	12.8	8.3	10.5	11.6	8.7
10/17/01	10.6	11.6	9.1	10.6	12.5	9.0	10.4	12.1	8.4	10.4	11.2	9.0
10/18/01	10.4	11.8	8.7	10.4	13.2	8.5	10.3	12.4	7.8	10.1	11.2	8.4
10/19/01	10.2	11.3	8.7	10.2	12.2	8.5	10.0	11.8	7.8	10.0	11.0	8.4
10/20/01	10.1	11.3	8.5	10.1	12.5	8.4	10.1	11.8	8.0	10.0	10.9	8.5
10/21/01	9.9	10.9	8.4	9.8	12.2	8.2	9.6	11.1	7.7	9.5	10.4	8.2
10/22/01	9.3	10.4	7.8	9.4	11.8	7.8	9.2	11.2	6.9	9.0	9.9	7.3
10/23/01	9.3	10.5	7.6	9.3	11.8	7.6	9.2	11.2	7.0	9.0	10.1	7.5
10/24/01												
10/25/01												
10/26/01												
10/27/01												
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	9.8	11.2	8.1	10.0	11.0	8.6	11.5	12.4	10.2
05/02/01	9.3	10.4	8.3	9.4	10.4	8.4	11.1	12.4	10.2
05/03/01	8.3	9.2	7.0	7.7	8.6	6.4	8.8	10.1	7.6
05/04/01	8.5	10.0	6.9	7.9	9.2	6.4	8.9	9.9	7.7
05/05/01	9.4	10.9	8.0	9.2	10.6	7.8	10.1	11.3	9.0
05/06/01	10.2	11.5	8.7	10.3	11.5	9.0	11.4	12.5	10.2
05/07/01	10.7	12.0	9.3	11.0	12.3	9.8	12.4	13.3	11.3
05/08/01	10.7	11.7	9.5	11.1	12.1	10.0	12.8	13.6	11.6
05/09/01	11.2	12.6	9.8	11.0	12.1	9.6	12.6	13.3	11.5
05/10/01	11.5	12.9	10.0	11.3	12.4	10.1	12.8	13.6	11.6
05/11/01	12.1	13.4	10.4	11.7	13.1	10.4	13.2	14.1	12.2
05/12/01	11.5	12.6	10.7	11.2	11.8	10.4	12.7	13.6	12.1
05/13/01	10.4	10.9	9.7	9.8	10.4	8.9	12.3	13.0	11.6
05/14/01	10.7	12.1	9.2	9.9	11.7	8.3	11.8	12.7	10.8
05/15/01	11.9	12.9	10.7	11.3	12.7	10.0	12.4	13.2	11.8
05/16/01	13.0	13.8	12.3	12.9	14.6	11.5	13.9	15.0	13.0
05/17/01	13.3	14.6	11.8	13.3	14.6	12.1	14.7	15.4	13.9
05/18/01	13.3	14.5	12.1	12.3	13.5	11.0	14.3	15.4	13.8
05/19/01	13.3	14.5	11.7	12.6	14.3	10.9	14.0	14.9	13.0
05/20/01	13.9	14.9	12.3	13.2	15.1	11.3	14.7	15.5	13.8
05/21/01	14.5	15.4	13.1	13.9	15.7	12.1	15.3	16.3	14.4
05/22/01	15.2	16.2	14.0	14.7	16.6	12.9	16.0	17.1	15.2
05/23/01	15.1	16.0	14.0	15.0	16.8	13.4	16.6	17.6	15.7
05/24/01	14.9	15.9	13.5	14.8	16.2	13.4	16.9	17.7	16.1
05/25/01	15.1	16.0	13.8	14.8	16.6	13.2	16.7	17.6	15.8
05/26/01	15.0	15.7	13.7	14.5	16.3	12.9	16.2	17.1	15.5
05/27/01	14.7	15.6	13.4	14.1	15.9	12.6	15.8	16.8	15.0
05/28/01	14.6	15.4	13.4	14.1	15.9	12.6	15.6	16.8	14.7
05/29/01	14.8	15.7	13.5	14.4	16.3	12.9	15.8	17.3	14.7
05/30/01	15.3	16.2	14.0	15.2	17.3	13.4	16.6	17.9	15.5
05/31/01	15.9	16.7	14.6	16.0	18.1	14.3	17.3	18.9	16.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	16.2	16.8	15.3	16.4	18.2	14.9	17.9	19.2	16.9
06/02/01	15.6	16.4	14.9	15.6	17.3	14.3	17.4	18.5	16.6
06/03/01	14.4	15.1	13.4	14.1	15.7	12.6	16.0	17.1	15.0
06/04/01	14.2	14.8	13.1	14.0	16.0	12.4	15.5	16.9	14.4
06/05/01	14.3	14.8	13.4	14.2	16.3	12.7	15.6	17.1	14.6
06/06/01	14.7	15.6	13.5	15.0	17.3	13.2	16.1	17.9	14.9
06/07/01	15.4	16.0	14.3	16.0	18.1	14.3	17.1	18.9	15.8
06/08/01	15.4	15.9	14.3	16.0	18.1	14.1	17.5	19.2	16.5
06/09/01	15.4	15.9	14.3	15.6	18.1	14.3	17.4	18.9	16.3
06/10/01	15.4	16.0	14.5	16.0	18.1	14.6	17.4	18.9	16.3
06/11/01	15.2	15.9	14.1	15.7	17.6	14.1	17.1	18.5	16.1
06/12/01	16.1	18.4	14.0	15.7	17.8	14.0	17.0	18.5	15.8
06/13/01	15.9	17.8	13.7	15.1	17.0	13.5	16.7	18.1	15.5
06/14/01	16.1	18.1	13.7	15.1	17.3	13.3	16.5	18.1	15.4
06/15/01	16.6	18.8	14.1	15.7	18.1	14.0	16.9	18.7	15.5
06/16/01	17.2	19.2	14.8	16.3	18.6	14.4	17.5	19.2	16.1
06/17/01	17.4	19.1	15.3	16.6	18.4	15.1	17.8	19.0	16.8
06/18/01	17.3	19.2	14.9	16.5	18.7	14.7	17.8	19.4	16.5
06/19/01	17.4	19.4	15.1	16.7	18.9	14.9	18.0	19.7	16.8
06/20/01	17.9	19.7	15.6	17.1	19.2	15.4	18.4	20.0	17.1
06/21/01	18.4	20.4	16.0	17.7	19.9	15.8	18.9	20.7	17.6
06/22/01	19.0	20.9	16.8	18.4	20.5	16.6	19.5	21.2	18.2
06/23/01	19.0	20.7	17.0	18.6	20.8	17.1	19.8	21.5	18.7
06/24/01	18.2	19.7	16.5	17.8	19.5	16.5	19.4	20.7	18.5
06/25/01	16.8	18.4	14.9	16.7	18.7	15.2	18.3	19.5	17.3
06/26/01	16.8	17.8	15.4	16.5	18.2	15.4	18.0	19.4	16.9
06/27/01	17.2	19.2	15.3	16.9	19.0	15.5	18.3	19.8	17.3
06/28/01	17.4	19.6	14.9	16.9	19.2	15.1	18.4	20.2	17.1
06/29/01	18.1	20.1	15.9	17.5	19.9	15.7	18.9	20.7	17.6
06/30/01	18.8	20.7	16.5	18.2	20.5	16.5	19.5	21.2	18.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	18.6	20.4	16.8	18.7	21.0	17.0	19.9	21.7	18.5
07/02/01	18.3	20.2	16.4	19.2	21.2	17.6	20.5	22.2	19.2
07/03/01	18.4	19.2	17.1	18.6	19.7	17.8	20.6	21.5	19.8
07/04/01	18.2	19.2	17.0	18.4	19.4	17.6	20.2	21.0	19.7
07/05/01	18.4	20.1	16.8	18.9	21.0	17.1	20.7	22.3	19.4
07/06/01	17.7	18.4	17.1	18.2	19.0	17.4	20.3	21.0	19.8
07/07/01	16.7	17.1	16.2	17.0	17.4	16.5	19.6	19.8	19.2
07/08/01	16.8	18.4	14.9	16.8	18.4	15.4	19.3	20.5	18.2
07/09/01	16.3	17.6	14.8	16.7	18.7	15.4	19.4	21.0	18.2
07/10/01	16.1	17.6	14.3	16.2	17.6	15.1	19.3	20.7	18.1
07/11/01	16.8	19.2	14.5	16.8	19.2	15.2	19.6	21.0	18.2
07/12/01	17.8	20.1	15.4	17.1	19.5	15.4	19.3	21.0	18.0
07/13/01	17.6	19.2	15.7	17.2	19.2	15.7	19.2	20.6	18.0
07/14/01	17.8	19.9	15.7	17.4	19.5	15.7	19.2	21.0	18.0
07/15/01	17.6	19.6	15.4	17.1	19.2	15.4	19.0	20.6	17.7
07/16/01	17.4	19.2	15.4	16.9	18.9	15.2	18.7	20.3	17.6
07/17/01	17.5	19.6	15.3	16.9	19.0	15.1	18.7	20.3	17.4
07/18/01	17.8	19.9	15.6	17.2	19.5	15.4	18.9	20.6	17.6
07/19/01	17.8	19.7	15.7	17.3	19.4	15.5	19.0	20.6	17.7
07/20/01	17.8	19.7	15.6	17.3	19.5	15.5	19.0	20.8	17.7
07/21/01	17.8	19.9	15.6	17.3	19.5	15.5	19.1	20.8	17.7
07/22/01	17.9	19.9	15.6	17.3	19.5	15.4	19.1	20.8	17.7
07/23/01	18.1	20.1	15.9	17.5	19.7	15.5	19.1	20.8	17.7
07/24/01	18.4	20.5	16.0	17.8	19.9	15.8	19.3	21.1	18.0
07/25/01	18.9	20.7	16.7	18.4	20.7	16.5	19.8	21.5	18.4
07/26/01	19.8	22.0	17.5	19.2	21.3	17.4	20.5	22.3	19.2
07/27/01	19.6	21.5	17.5	19.3	21.5	17.4	20.9	22.8	19.5
07/28/01	19.1	20.9	17.1	18.9	21.0	17.0	20.7	22.5	19.3
07/29/01	18.8	20.7	16.5	18.4	20.5	16.6	20.3	22.1	19.0
07/30/01	18.3	20.1	16.2	17.9	20.0	16.2	19.8	21.5	18.5
07/31/01	18.3	20.4	16.2	18.0	20.2	16.2	19.7	21.6	18.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	18.7	20.7	16.4	18.2	20.5	16.2	20.0	21.8	18.5
08/02/01	19.4	21.4	17.1	18.8	21.0	16.8	20.3	22.1	18.9
08/03/01	19.6	21.5	17.6	19.1	21.3	17.4	20.5	22.3	19.2
08/04/01	18.8	20.4	17.0	18.5	20.5	16.8	20.3	22.0	19.0
08/05/01	18.3	20.2	16.0	17.9	20.0	16.0	19.8	21.6	18.4
08/06/01	18.0	18.9	16.5	18.0	19.9	16.2	19.9	21.6	18.4
08/07/01	18.1	19.9	16.2	18.6	20.7	16.8	20.5	22.3	19.0
08/08/01	19.2	20.9	17.5	19.1	21.2	17.4	21.2	23.0	19.8
08/09/01	19.3	21.2	17.1	19.3	21.3	17.6	21.3	23.1	20.0
08/10/01	19.7	21.7	17.8	19.5	21.7	17.8	21.3	23.0	20.0
08/11/01	19.3	21.0	17.3	19.3	21.3	17.4	21.1	22.8	19.7
08/12/01	19.2	20.9	17.1	19.0	21.0	17.3	20.9	22.5	19.7
08/13/01	19.0	20.7	17.0	18.7	20.8	17.0	20.6	22.3	19.3
08/14/01	19.0	21.0	17.0	18.7	20.8	17.0	20.4	22.0	19.2
08/15/01	18.8	20.4	17.0	18.4	20.0	17.0	20.1	21.5	19.0
08/16/01	18.8	20.7	16.7	18.5	20.7	16.8	20.1	21.8	18.7
08/17/01	18.8	20.2	16.8	18.6	20.5	16.8	20.0	21.3	18.9
08/18/01	19.0	20.9	16.8	18.8	20.7	17.1	20.1	21.8	18.9
08/19/01	19.0	20.7	17.0	18.8	20.7	17.1	20.3	22.0	19.0
08/20/01	18.4	20.1	16.7	18.4	20.3	16.8	19.9	21.3	18.9
08/21/01	17.5	18.9	15.9	17.6	19.2	16.2	19.0	19.8	18.2
08/22/01	16.4	17.6	14.9	16.5	17.8	15.4	18.0	19.0	17.2
08/23/01	16.1	18.0	14.0	16.1	17.9	14.4	17.9	19.2	16.8
08/24/01	16.6	18.6	14.5	16.3	18.2	14.4	18.0	19.5	16.8
08/25/01	17.4	19.2	15.3	16.9	18.9	15.1	18.4	19.8	17.1
08/26/01	18.0	19.9	15.9	17.5	19.5	15.8	18.8	20.3	17.6
08/27/01	18.5	20.4	16.5	18.1	20.0	16.3	19.3	20.8	18.0
08/28/01	18.6	20.2	16.5	18.3	20.2	16.6	19.6	21.1	18.4
08/29/01	18.6	20.2	16.8	18.4	20.2	16.8	19.8	21.3	18.5
08/30/01	18.2	19.9	16.5	18.1	20.0	16.6	19.7	21.0	18.7
08/31/01	17.8	19.4	15.9	17.6	19.4	16.0	19.3	20.5	18.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	17.5	19.2	15.6	17.2	19.0	15.7	19.0	20.3	17.7
09/02/01	17.4	19.1	15.6	17.2	19.0	15.5	18.9	20.3	17.6
09/03/01	16.9	17.8	15.9	17.1	18.4	16.0	18.7	19.5	17.9
09/04/01	16.5	18.4	14.3	16.8	18.6	15.2	18.6	20.0	17.4
09/05/01	17.1	18.8	15.3	16.9	18.7	15.5	18.9	20.1	17.7
09/06/01	16.4	18.0	14.5	16.3	17.9	14.7	18.2	19.5	17.1
09/07/01	16.2	18.0	14.1	16.0	17.8	14.4	17.7	18.9	16.5
09/08/01	16.2	17.8	14.1	15.8	17.6	14.1	17.4	18.7	16.3
09/09/01	16.0	17.8	14.1	15.7	17.4	14.1	17.2	18.5	16.1
09/10/01	15.9	17.6	14.0	15.6	17.3	14.1	17.1	18.2	16.0
09/11/01	16.0	16.8	15.1	15.7	16.8	14.7	17.1	17.7	16.6
09/12/01	15.3	16.8	13.5	15.2	16.3	14.0	16.8	17.9	15.8
09/13/01	15.1	16.7	13.2	14.7	16.3	13.2	16.6	17.9	15.5
09/14/01	14.8	16.5	12.9	14.6	16.2	13.0	16.4	17.6	15.2
09/15/01	14.8	16.4	12.9	14.5	16.0	13.0	16.1	17.4	15.0
09/16/01	14.6	16.2	12.8	14.3	15.8	12.9	16.0	17.2	14.9
09/17/01	14.7	16.4	12.9	14.4	16.0	12.9	15.9	17.1	14.9
09/18/01	15.0	16.7	13.1	14.5	16.2	13.0	16.1	17.2	15.0
09/19/01	15.2	16.8	13.4	14.8	16.3	13.3	16.2	17.4	15.2
09/20/01	15.4	17.0	13.7	15.0	16.5	13.7	16.4	17.6	15.3
09/21/01	15.4	16.8	13.5	15.0	16.5	13.7	16.4	17.6	15.3
09/22/01	15.1	16.4	13.5	15.0	16.2	13.7	16.3	17.2	15.3
09/23/01	14.5	15.4	13.2	14.4	15.4	13.3	16.0	16.8	15.2
09/24/01	14.4	16.4	12.3	13.9	14.9	12.6	15.7	16.6	14.6
09/25/01	15.3	16.8	14.0	14.9	16.5	13.7	16.1	17.4	15.2
09/26/01	14.5	15.9	12.9	14.6	15.8	13.3	16.1	17.1	15.2
09/27/01	14.1	15.7	12.5	14.0	15.4	12.7	15.6	16.6	14.7
09/28/01	13.5	14.9	12.0	13.6	14.7	12.4	15.2	16.1	14.2
09/29/01	13.4	15.1	11.7	13.3	14.6	12.1	14.9	16.0	13.9
09/30/01	13.2	14.1	11.7	13.2	14.4	12.0	14.8	15.8	13.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SFSJR Upstream of Rattlesnake Creek			SFSJR Upstream of Hoffman Creek			SFSJR Upstream of Middle Fork Confluence 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	13.2	14.0	11.8	13.1	14.0	12.0	14.8	15.8	14.1
10/02/01	13.3	14.9	11.7	13.2	14.4	12.1	15.1	16.3	14.2
10/03/01	14.0	15.4	12.5	13.5	14.7	12.3	15.3	16.3	14.4
10/04/01	14.0	15.6	12.8	13.7	14.7	12.4	15.4	16.5	14.4
10/05/01	13.7	14.9	12.8	13.6	14.6	12.6	15.4	16.3	14.7
10/06/01	12.9	14.1	11.8	12.8	13.7	11.6	14.7	15.5	13.9
10/07/01	12.1	13.4	10.9	12.0	12.9	10.9	14.1	14.9	13.2
10/08/01	11.9	12.9	11.1	11.8	12.4	10.9	13.8	14.6	13.2
10/09/01	11.3	12.5	10.1	11.5	12.3	10.3	13.5	14.4	12.7
10/10/01	10.7	11.8	9.5	10.7	11.5	9.6	13.1	13.9	12.2
10/11/01	10.3	11.2	9.4	10.4	11.3	9.5	12.7	13.3	12.1
10/12/01	10.3	11.8	8.7	10.3	11.3	9.0	12.3	13.3	11.5
10/13/01	10.3	11.7	8.9	10.0	10.9	8.7	12.1	13.0	11.2
10/14/01	10.1	11.4	8.7	9.8	10.6	8.7	12.0	12.9	11.0
10/15/01	10.3	11.5	9.0	10.0	10.9	8.9	11.9	12.7	11.2
10/16/01	10.5	11.5	9.4	10.2	11.2	9.0	11.9	12.7	11.2
10/17/01	10.5	11.4	9.5	10.2	10.9	9.2	11.9	12.6	11.2
10/18/01	10.2	11.5	8.9	10.0	10.9	8.9	11.8	12.7	11.0
10/19/01	10.0	10.9	8.9	9.9	10.7	8.9	11.7	12.2	11.0
10/20/01	10.0	11.1	8.9	9.9	10.6	8.9	11.6	12.4	11.0
10/21/01	9.5	10.3	8.6	9.7	10.4	8.6	11.5	12.2	10.7
10/22/01	9.0	10.0	7.8	9.1	9.8	8.1	11.2	11.9	10.5
10/23/01	9.0	10.1	7.8	8.9	9.6	7.9	10.9	11.8	10.2
10/24/01	8.6	9.5	7.5	8.5	9.2	7.5	10.7	11.3	10.1
10/25/01				8.3	8.9	7.3	10.3	11.0	9.6
10/26/01							10.1	10.9	9.5
10/27/01							10.0	10.5	9.5
10/28/01							9.8	10.4	9.1
10/29/01							9.7	10.2	9.1
10/30/01							9.9	9.9	9.8
10/31/01							9.6	10.2	9.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00	H	H	H	3.9	4.9	3.0	H	H	H			
06/09/00	H	H	H	5.0	8.9	2.0	H	H	H			
06/10/00	H	H	H	5.8	9.8	2.8	H	H	H			
06/11/00	H	H	H	6.7	11.1	3.8	H	H	H			
06/12/00	H	H	H	7.7	11.2	5.0	H	H	H			
06/13/00	H	H	H	8.6	12.8	6.0	H	H	H			
06/14/00	H	H	H	9.2	13.2	6.3	H	H	H	9.9	12.6	7.2
06/15/00	H	H	H	10.1	13.8	7.3	H	H	H	10.8	13.7	8.3
06/16/00	H	H	H	10.7	14.2	8.4	H	H	H	11.4	13.7	9.2
06/17/00	H	H	H	10.1	13.4	8.3	H	H	H	10.7	12.9	8.9
06/18/00	H	H	H	9.9	13.1	7.7	H	H	H	10.4	12.8	8.3
06/19/00	H	H	H	9.3	12.9	6.1	H	H	H	9.8	12.5	7.0
06/20/00	H	H	H	10.2	13.8	7.5	H	H	H	10.6	13.4	8.1
06/21/00	H	H	H	9.8	12.1	7.5	H	H	H	10.3	11.8	8.4
06/22/00	H	H	H	9.3	11.4	7.7	H	H	H	9.9	11.5	8.4
06/23/00	H	H	H	9.6	12.6	7.7	H	H	H	10.0	12.0	8.4
06/24/00	H	H	H	9.2	12.8	6.9	H	H	H	9.7	12.1	7.7
06/25/00	H	H	H	9.0	10.9	7.3	H	H	H	9.4	10.8	8.0
06/26/00	H	H	H	8.9	11.7	7.0	H	H	H	9.3	11.2	7.7
06/27/00	H	H	H	9.4	12.5	7.3	H	H	H	9.8	12.0	8.0
06/28/00	H	H	H	9.8	12.1	8.0	H	H	H	10.3	12.0	8.7
06/29/00	H	H	H	9.8	12.3	7.8	9.9	12.2	7.8	10.2	11.8	8.4
06/30/00	10.5	14.4	7.7	10.6	14.6	8.0	10.7	14.6	7.9	10.9	13.7	8.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	9.3	12.9	6.7	9.5	13.1	6.9	9.5	13.0	6.8	10.0	12.3	7.8
07/02/00	8.4	12.4	5.4	8.5	12.6	5.5	8.6	12.7	5.4	9.0	11.7	6.4
07/03/00	7.9	10.8	5.9	8.1	10.9	6.0	8.1	10.9	5.9	8.5	10.3	6.7
07/04/00	7.4	11.8	4.0	7.6	12.0	4.1	7.6	11.9	4.2	7.9	10.9	5.0
07/05/00	7.6	11.1	4.5	7.8	11.2	4.7	7.8	11.3	4.6	8.0	10.4	5.5
07/06/00	8.4	12.4	5.3	8.6	12.6	5.3	8.6	12.7	5.4	8.8	11.8	6.3
07/07/00	7.5	11.5	4.5	7.7	11.7	4.7	7.7	11.6	4.6	8.1	10.6	5.3
07/08/00	8.4	12.9	5.0	8.5	13.1	5.0	8.6	13.2	5.1	8.7	12.0	5.8
07/09/00	9.1	13.2	6.2	9.3	13.4	6.3	9.3	13.5	6.2	9.5	12.5	6.9
07/10/00	9.7	13.2	6.8	9.8	13.4	6.9	9.8	13.3	6.8	10.0	12.6	7.7
07/11/00	10.3	13.9	7.6	10.5	14.2	7.7	10.5	14.3	7.8	10.7	13.2	8.4
07/12/00	9.9	13.3	7.3	10.1	13.5	7.3	10.1	13.5	7.5	10.5	12.6	8.4
07/13/00	9.7	13.3	7.1	9.9	13.5	7.2	9.9	13.5	7.3	10.2	12.6	7.8
07/14/00	9.8	13.9	6.4	10.0	14.2	6.6	10.0	14.3	6.5	10.2	13.1	7.4
07/15/00	10.4	14.1	7.6	10.5	14.3	7.7	10.6	14.4	7.8	10.7	13.4	8.4
07/16/00	10.6	13.3	8.5	10.8	13.5	8.7	10.8	13.5	8.7	11.1	12.9	9.4
07/17/00	9.6	13.3	7.0	9.8	13.5	7.2	9.8	13.5	7.1	10.1	12.5	8.0
07/18/00	9.1	13.0	6.4	9.4	13.5	6.4	9.4	13.3	6.4	9.6	12.3	7.0
07/19/00	9.3	13.3	5.9	9.5	13.5	6.1	9.5	13.6	6.1	9.6	12.6	6.7
07/20/00	9.8	13.9	6.4	10.0	14.2	6.6	10.0	14.3	6.5	10.3	13.2	7.4
07/21/00	9.9	13.6	6.7	10.1	14.0	6.9	10.1	14.0	6.8	10.4	12.9	7.8
07/22/00	10.0	14.1	6.5	10.3	14.3	6.7	10.3	14.3	6.7	10.5	13.2	7.5
07/23/00	10.3	14.2	7.0	10.5	14.6	7.0	10.5	14.6	7.1	10.7	13.4	8.0
07/24/00	10.6	14.4	7.6	10.8	14.6	7.8	10.8	14.6	7.8	11.0	13.5	8.6
07/25/00	11.0	14.7	8.4	11.3	14.9	8.6	11.3	14.9	8.5	11.4	13.8	9.2
07/26/00	10.7	14.1	8.1	10.9	14.3	8.3	10.9	14.4	8.2	11.1	13.2	9.2
07/27/00	9.9	13.8	6.8	10.1	14.2	6.9	10.1	14.1	6.8	10.3	12.9	7.8
07/28/00	10.1	14.1	6.8	10.3	14.3	7.0	10.3	14.3	7.0	10.5	13.4	7.8
07/29/00	10.8	14.7	7.7	11.0	14.9	7.8	11.0	14.9	7.9	11.1	13.8	8.6
07/30/00	12.1	15.7	9.4	12.3	15.9	9.7	12.3	15.8	9.6	12.4	14.8	10.1
07/31/00	11.9	15.0	9.7	12.1	14.8	9.8	12.1	14.7	9.9	12.4	13.8	10.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	12.4	14.9	11.0	12.6	14.8	11.1	12.6	14.7	11.2	12.8	14.0	11.5
08/02/00	11.9	15.2	10.1	12.1	15.3	10.3	12.1	15.2	10.2	12.4	14.0	10.9
08/03/00	11.3	13.8	10.1	11.4	13.5	10.3	11.4	13.5	10.2	11.8	13.2	10.8
08/04/00	11.3	14.6	8.5	11.5	14.8	8.7	11.5	14.7	8.7	11.7	14.0	9.4
08/05/00	11.5	15.5	8.5	11.8	15.7	8.7	11.8	15.8	8.7	11.9	14.8	9.4
08/06/00	12.2	16.0	9.7	12.5	16.2	10.0	12.5	16.2	9.9	12.6	14.9	10.4
08/07/00	11.8	15.3	9.3	12.0	15.6	9.5	12.0	15.5	9.5	12.1	14.5	10.1
08/08/00	11.3	14.9	8.5	11.5	15.3	8.7	11.5	15.2	8.7	11.6	14.0	9.5
08/09/00	10.2	13.3	7.6	10.5	13.7	8.0	10.5	13.6	7.9	10.8	12.5	8.9
08/10/00	9.3	13.0	6.5	9.6	13.2	6.7	9.6	13.3	6.7	9.7	12.1	7.4
08/11/00	9.1	13.3	5.7	9.4	13.5	6.0	9.4	13.5	5.9	9.6	12.3	6.9
08/12/00	9.6	13.6	6.0	9.8	13.8	6.4	9.9	14.0	6.4	10.0	12.6	7.4
08/13/00	9.6	13.6	6.2	9.9	13.8	6.4	9.9	14.0	6.4	10.0	12.5	7.5
08/14/00	10.0	13.9	7.0	10.3	14.2	7.2	10.3	14.1	7.1	10.4	12.8	8.1
08/15/00	10.9	14.7	8.2	11.1	14.9	8.4	11.1	15.0	8.4	11.2	13.5	9.0
08/16/00	11.0	14.6	8.7	11.3	14.8	8.7	11.3	14.7	8.8	11.4	13.4	9.5
08/17/00	10.8	14.1	8.7	11.1	14.5	8.9	11.1	14.4	8.8	11.3	13.1	9.5
08/18/00	9.2	12.9	6.5	9.6	13.2	6.7	9.6	13.2	6.7	9.9	11.7	7.8
08/19/00	8.6	12.2	5.7	8.8	12.5	6.0	8.8	12.6	5.9	9.1	11.2	6.9
08/20/00	8.3	12.4	5.1	8.6	12.6	5.5	8.6	12.6	5.4	8.8	11.2	6.4
08/21/00	8.6	12.7	5.4	8.9	12.9	5.8	8.9	12.9	5.7	9.1	11.4	6.9
08/22/00	9.0	12.9	6.0	9.2	13.1	6.3	9.2	13.0	6.4	9.4	11.7	7.2
08/23/00	9.6	13.6	7.0	9.8	13.8	7.2	9.9	13.8	7.1	10.0	12.1	8.0
08/24/00	10.0	13.9	7.0	10.2	14.0	7.2	10.2	14.0	7.1	10.3	12.5	8.0
08/25/00	10.5	12.9	9.4	10.8	12.5	9.7	10.8	12.4	9.6	11.2	12.1	10.1
08/26/00	10.3	12.4	9.0	10.5	12.5	9.0	10.5	12.4	9.1	10.9	12.1	9.8
08/27/00	10.8	13.9	8.5	11.0	14.2	8.6	11.0	14.1	8.7	11.2	13.1	9.4
08/28/00	10.3	12.5	8.8	10.5	12.1	9.0	10.5	12.1	9.0	11.0	11.8	9.8
08/29/00	10.1	11.5	9.6	10.3	11.5	9.8	10.3	11.5	9.8	10.7	11.4	10.3
08/30/00	10.2	12.4	9.0	10.4	12.5	9.2	10.5	12.4	9.1	10.7	12.0	9.7
08/31/00	9.1	11.8	7.4	9.4	11.8	7.7	9.4	11.8	7.6	9.7	10.9	8.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	7.0	8.5	5.1	7.3	8.9	5.3	7.3	8.8	5.3	7.9	9.5	6.3
09/02/00	6.8	9.1	5.1	7.0	9.4	5.3	6.9	9.3	5.3	7.3	9.0	6.0
09/03/00	7.3	10.8	4.8	7.6	11.1	4.9	7.6	11.0	4.8	7.8	10.0	5.6
09/04/00	6.7	10.1	4.2	7.0	10.3	4.4	7.0	10.2	4.5	7.3	9.2	5.2
09/05/00	5.9	9.6	3.1	6.2	9.8	3.3	6.2	9.8	3.2	6.5	8.7	4.2
09/06/00	5.9	9.6	3.1	6.2	9.7	3.3	6.1	9.6	3.2	6.5	8.7	4.2
09/07/00	6.6	10.2	3.9	6.8	10.4	3.9	6.8	10.4	4.0	7.1	9.4	4.9
09/08/00	7.4	10.7	5.3	7.7	10.9	5.5	7.7	10.9	5.4	8.0	9.7	6.3
09/09/00	6.9	10.4	4.2	7.1	10.6	4.4	7.1	10.5	4.3	7.5	9.5	5.3
09/10/00	7.6	11.0	5.3	7.9	11.2	5.3	7.9	11.3	5.4	8.1	10.1	6.3
09/11/00	7.6	11.1	5.0	7.9	11.4	5.2	7.9	11.3	5.3	8.2	10.1	6.1
09/12/00	7.6	10.2	5.4	7.8	10.3	5.6	7.8	10.2	5.6	8.3	9.7	6.6
09/13/00	8.9	12.2	6.8	9.1	12.1	7.0	9.1	12.1	7.0	9.3	11.1	7.8
09/14/00	9.4	12.7	7.4	9.7	12.8	7.7	9.7	12.9	7.6	9.8	11.2	8.3
09/15/00	8.3	11.1	5.9	8.7	11.4	6.3	8.6	11.3	6.2	9.0	10.3	7.2
09/16/00	8.2	11.6	6.0	8.5	11.7	6.3	8.5	11.6	6.2	8.7	10.4	6.7
09/17/00	9.0	12.1	7.0	9.3	12.3	7.2	9.2	12.2	7.1	9.4	11.1	7.8
09/18/00	9.0	12.2	6.8	9.3	12.3	7.0	9.3	12.2	7.1	9.6	11.1	8.0
09/19/00	9.2	12.2	6.8	9.4	12.5	7.0	9.4	12.4	7.1	9.7	11.4	8.0
09/20/00	9.6	12.7	7.6	9.9	12.9	7.8	9.9	12.9	7.8	10.2	11.5	8.6
09/21/00	9.4	12.1	7.7	9.8	12.3	8.1	9.8	12.2	8.2	10.1	11.1	8.9
09/22/00	7.3	10.1	5.6	7.6	10.0	6.0	7.6	9.9	6.1	8.2	9.7	7.2
09/23/00	6.4	9.3	4.0	6.7	9.5	4.4	6.7	9.5	4.3	7.0	8.6	5.3
09/24/00	6.3	9.4	3.9	6.5	9.7	4.1	6.5	9.6	4.2	6.9	8.6	5.2
09/25/00	6.7	9.6	4.5	6.9	9.8	4.7	6.9	9.8	4.8	7.3	8.9	5.6
09/26/00	6.8	9.4	5.0	7.1	9.7	5.2	7.0	9.6	5.1	7.4	8.7	6.0
09/27/00	6.8	9.6	4.8	7.0	9.8	5.0	7.0	9.8	5.1	7.4	8.9	6.0
09/28/00	7.0	9.4	5.0	7.2	9.7	5.2	7.2	9.6	5.3	7.7	8.9	6.3
09/29/00	7.0	9.4	5.3	7.3	9.7	5.5	7.3	9.6	5.6	7.7	8.9	6.3
09/30/00	7.2	10.1	5.3	7.4	10.1	5.5	7.4	10.2	5.4	7.8	9.2	6.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	7.2	9.6	5.6	F	F	F	7.3	9.6	5.7	7.9	9.2	6.6
10/02/00	6.7	9.3	4.6	F	F	F	6.8	9.5	4.8	7.3	8.9	5.6
10/03/00	6.4	8.8	4.5	F	F	F	6.6	8.8	4.6	7.1	8.6	5.5
10/04/00	6.4	9.0	4.6	F	F	F	6.5	9.0	4.8	7.0	8.6	5.5
10/05/00	6.5	9.0	5.0	F	F	F	6.7	9.0	5.0	7.2	8.6	5.8
10/06/00	6.5	9.0	4.6	F	F	F	6.7	9.0	4.8	7.2	8.7	5.6
10/07/00	6.6	9.3	5.0	F	F	F	6.7	9.3	5.1	7.3	8.7	6.0
10/08/00	6.3	8.5	4.6	F	F	F	6.4	8.7	4.8	7.0	8.3	5.6
10/09/00	5.7	7.7	4.0	F	F	F	5.8	7.8	4.3	6.5	7.5	5.3
10/10/00	2.3	3.7	0.7	F	F	F	2.5	4.0	1.0	3.3	5.8	2.5
10/11/00	1.3	2.3	0.2	F	F	F	1.4	2.5	0.4	2.2	2.8	1.3
10/12/00	2.2	4.5	0.9	F	F	F	2.3	4.6	0.9	2.9	4.2	1.9
10/13/00	2.5	4.8	0.7	F	F	F	2.6	5.0	0.9	3.2	5.0	1.6
10/14/00	3.1	5.4	1.5	F	F	F	3.2	5.4	1.7	3.8	5.3	2.4
10/15/00	3.2	5.6	1.5	F	F	F	3.3	5.6	1.7	3.9	5.6	2.5
10/16/00	3.6	5.9	2.0	F	F	F	3.7	5.9	2.0	4.4	6.0	3.0
10/17/00	3.7	5.9	2.0	F	F	F	3.8	5.9	2.1	4.5	6.0	3.0
10/18/00	4.1	6.0	2.6	F	F	F	4.2	6.2	2.8	4.8	6.1	3.5
10/19/00	3.9	5.9	2.4	F	F	F	4.0	6.1	2.5	4.7	6.1	3.3
10/20/00	4.3	6.4	2.9	F	F	F	4.4	6.5	3.1	5.1	6.4	3.8
10/21/00	2.8	4.3	1.5	F	F	F	2.9	4.3	1.5	3.7	5.3	2.5
10/22/00	1.4	3.1	0.2	F	F	F	1.5	3.1	0.2	2.1	3.3	0.9
10/23/00	2.5	4.8	1.2	F	F	F	2.6	4.8	1.2	2.9	4.7	1.6
10/24/00												
10/25/00												
10/26/00												
10/27/00												
10/28/00												
10/29/00												
10/30/00												
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Bear Creek upstream of Diversion			Bear Creek Diversion			Bear Creek downstream of Diversion			Bear Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Bear Creek upstream of Diversion			Bear Creek Diversion			Bear Creek downstream of Diversion			Bear Creek upstream of SFSJR		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00	6.3	9.4	3.8							7.3	9.1	5.3
06/08/00	3.8	5.9	3.3	4.2	7.0	3.4	H	H	H	6.3	8.1	5.6
06/09/00	5.1	9.1	1.9	4.8	8.4	2.2	H	H	H	6.8	9.1	4.6
06/10/00	6.5	9.7	3.3	6.5	9.0	4.1	H	H	H	8.8	10.9	6.6
06/11/00	7.5	11.3	4.1	7.4	10.6	4.5	H	H	H	10.0	12.2	7.7
06/12/00	7.8	11.0	5.2	7.8	10.4	5.5	H	H	H	10.9	12.3	9.4
06/13/00	8.5	12.5	5.4	8.5	11.8	5.6	H	H	H	11.9	14.3	10.0
06/14/00	8.3	12.4	5.1	8.2	12.0	5.3	H	H	H	9.3	12.3	6.6
06/15/00	8.9	13.0	5.7	8.3	12.1	5.6	H	H	H	9.6	12.9	7.0
06/16/00	8.9	11.9	6.3	8.6	11.7	6.4	H	H	H	9.6	12.2	7.2
06/17/00	8.7	12.2	6.0	8.3	11.8	5.9	H	H	H	9.1	12.2	6.7
06/18/00	8.9	12.2	6.0	8.6	11.8	6.1	H	H	H	9.3	12.0	6.9
06/19/00	8.7	12.4	5.4	8.0	11.3	5.5	H	H	H	9.1	11.8	6.4
06/20/00	9.9	13.5	6.6	9.2	12.4	6.9	H	H	H	10.3	13.1	8.0
06/21/00	9.7	12.4	6.9	9.4	12.0	7.3	H	H	H	10.3	12.3	8.3
06/22/00	9.4	11.0	7.4	9.3	11.0	7.8	H	H	H	10.1	11.7	8.6
06/23/00	9.2	11.3	7.3	9.4	11.0	7.5	H	H	H	10.4	11.8	8.4
06/24/00	9.5	12.8	6.8	9.5	12.3	7.2	H	H	H	12.0	14.2	10.0
06/25/00	9.0	11.5	6.9	8.9	11.3	7.2	H	H	H	10.6	12.9	9.1
06/26/00	9.1	11.1	7.3	8.9	10.6	7.6	H	H	H	9.6	10.9	8.4
06/27/00	10.0	12.7	7.6	9.0	10.6	8.1	H	H	H	10.3	12.2	9.1
06/28/00	10.4	12.4	8.5	10.4	12.0	8.9	H	H	H	11.6	12.6	10.0
06/29/00	10.4	12.4	8.2	10.4	12.1	8.4	H	H	H	12.4	14.0	10.6
06/30/00	11.4	14.6	8.7	11.4	14.1	8.9	H	H	H	13.3	15.3	11.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Bear Creek upstream of Diversion			Bear Creek Diversion			Bear Creek downstream of Diversion			Bear Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	10.9	13.5	8.2	11.1	13.2	8.7	H	H	H	13.5	15.4	11.5
07/02/00	10.4	13.0	7.6	10.5	12.4	8.1	H	H	H	13.0	14.8	10.9
07/03/00	10.2	12.1	7.7	10.3	12.0	8.3	H	H	H	12.8	14.6	10.9
07/04/00	9.9	12.2	7.1	9.9	11.7	7.8	H	H	H	12.3	14.0	10.1
07/05/00	10.3	12.4	7.7	10.4	12.0	8.6	H	H	H	12.0	13.5	10.1
07/06/00	10.9	12.8	8.3	11.0	12.6	9.0	H	H	H	12.5	14.6	10.3
07/07/00	10.4	12.1	7.9	10.7	12.3	8.7	H	H	H	12.8	14.5	10.6
07/08/00	10.9	13.2	8.2	10.9	12.7	8.9	H	H	H	12.8	14.6	10.5
07/09/00	12.0	13.8	9.6	12.1	13.5	10.3	H	H	H	13.5	15.4	11.2
07/10/00	12.7	14.7	10.4	12.8	14.3	10.9	H	H	H	14.2	16.1	12.2
07/11/00	12.8	14.7	10.4	12.9	14.3	11.0	H	H	H	14.9	16.7	12.9
07/12/00	13.1	14.4	11.1	13.2	14.1	11.8	H	H	H	14.9	16.5	12.9
07/13/00	12.7	14.2	10.4	12.8	14.0	11.0	H	H	H	14.6	16.2	12.8
07/14/00	12.9	14.6	10.4	13.0	14.3	11.2	H	H	H	14.8	16.5	12.6
07/15/00	13.6	15.3	11.3	13.6	14.9	12.0	H	H	H	15.1	16.9	13.2
07/16/00	14.2	15.7	12.4	14.3	15.6	12.9	H	H	H	15.4	16.9	13.9
07/17/00	12.9	14.4	10.8	13.2	14.4	11.5	H	H	H	15.0	16.7	13.2
07/18/00	12.3	13.9	9.9	12.5	13.7	10.7	12.6	13.6	11.1	14.5	16.1	12.5
07/19/00	12.3	14.2	9.7	12.5	13.8	10.6	12.6	13.8	11.0	14.2	15.9	12.0
07/20/00	13.4	15.7	10.8	13.4	15.1	11.7	13.5	14.8	11.9	14.7	16.5	12.5
07/21/00	13.8	15.8	11.5	13.9	15.2	12.3	14.0	15.3	12.7	15.1	16.7	13.1
07/22/00	13.7	15.7	11.1	14.0	15.2	12.3	14.1	15.0	12.7	15.4	17.0	13.2
07/23/00	14.0	16.0	11.6	14.2	15.6	12.6	14.2	15.3	12.8	15.5	17.2	13.4
07/24/00	14.4	16.6	12.1	14.5	16.0	12.9	14.5	15.8	13.1	15.6	17.3	13.7
07/25/00	14.8	16.9	12.5	14.9	16.3	13.4	14.9	16.1	13.6	15.9	17.7	14.0
07/26/00	14.7	16.8	12.7	15.0	16.2	13.5	15.0	16.1	13.8	16.0	17.7	14.2
07/27/00	13.8	16.0	11.5	14.2	15.6	12.6	14.2	15.2	12.8	15.5	17.2	13.5
07/28/00	13.9	16.0	11.6	14.1	15.6	12.6	14.1	15.2	12.8	15.3	16.9	13.2
07/29/00	14.5	16.8	12.2	14.6	16.3	13.2	14.5	15.6	13.3	15.7	17.2	13.7
07/30/00	15.6	17.7	13.5	15.7	17.3	14.1	15.4	16.6	14.4	16.5	18.0	14.8
07/31/00	15.4	17.3	13.9	15.8	16.7	14.8	15.7	16.4	14.8	16.7	18.1	15.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Bear Creek upstream of Diversion			Bear Creek Diversion			Bear Creek downstream of Diversion			Bear Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	15.7	17.3	14.2	15.7	16.5	14.8	15.7	16.4	14.8	16.9	17.8	15.7
08/02/00	15.0	16.9	13.8	15.3	16.0	14.4	15.3	15.9	14.5	16.2	17.5	15.0
08/03/00	13.9	15.2	12.7	14.2	15.2	13.5	14.3	15.3	13.8	15.7	16.5	15.0
08/04/00	13.2	15.3	10.8	13.2	14.9	11.3	13.4	14.8	11.6	15.4	17.2	13.7
08/05/00	14.7	17.4	12.2	14.7	16.3	13.2	14.8	16.1	13.4	15.9	17.7	14.0
08/06/00	15.6	18.9	13.3	15.8	17.5	14.3	15.7	16.9	14.4	16.6	18.3	14.8
08/07/00	15.4	18.4	13.0	15.9	17.3	14.4	15.8	16.6	14.5	16.6	18.3	14.8
08/08/00	14.9	18.2	12.5	15.5	17.0	14.1	15.3	16.1	14.2	16.3	17.8	14.5
08/09/00	14.1	17.9	11.9	15.0	16.2	13.8	14.8	15.6	13.9	15.7	17.2	14.2
08/10/00	12.9	17.9	9.7	13.7	15.1	12.3	13.4	14.5	12.4	14.8	16.2	13.1
08/11/00	F	F	F	13.4	15.1	11.7	12.8	13.8	11.7	14.3	15.9	12.3
08/12/00	F	F	F	13.7	15.9	12.0	13.1	14.2	12.1	14.4	16.1	12.3
08/13/00	F	F	F	14.1	16.0	12.4	13.5	14.4	12.5	14.5	16.1	12.5
08/14/00	F	F	F	14.5	16.3	12.7	13.7	14.7	12.8	14.7	16.4	12.8
08/15/00	F	F	F	15.1	17.0	13.7	14.4	15.3	13.4	15.3	17.2	13.4
08/16/00	F	F	F	15.7	17.5	14.3	15.0	15.9	14.1	15.6	17.3	13.7
08/17/00	F	F	F	15.8	17.3	14.3	15.2	15.8	14.2	15.8	17.3	14.0
08/18/00	13.3	16.6	10.8	14.9	16.3	13.5	14.3	15.6	13.3	15.0	16.5	13.2
08/19/00	12.3	15.8	9.7	13.7	15.1	12.3	13.1	14.2	12.2	14.1	15.6	12.3
08/20/00	12.1	16.0	9.1	13.1	14.8	11.8	12.5	13.4	11.6	13.7	15.3	11.7
08/21/00	12.3	16.1	9.4	13.2	14.8	11.8	12.5	13.3	11.7	13.6	15.3	11.7
08/22/00	12.8	16.9	9.7	13.4	14.9	12.1	12.8	13.6	11.9	13.7	15.3	11.7
08/23/00	13.5	17.1	10.8	13.9	15.4	12.7	13.3	13.9	12.5	14.0	15.7	12.3
08/24/00	13.6	17.6	10.8	13.9	15.1	12.9	13.4	14.1	12.7	14.2	15.9	12.3
08/25/00	14.1	16.0	13.0	14.5	15.4	14.0	14.2	14.5	13.8	14.5	15.1	13.7
08/26/00	13.3	15.0	11.9	13.8	14.6	12.7	13.5	14.2	12.8	14.5	15.4	13.5
08/27/00	13.6	16.3	11.5	13.6	15.2	12.4	13.3	14.2	12.5	14.6	16.4	12.9
08/28/00	13.2	14.4	12.2	13.7	14.8	13.1	13.6	14.2	13.0	14.4	15.1	13.4
08/29/00	12.5	13.5	11.9	12.9	13.4	12.6	12.9	13.3	12.5	14.1	14.5	13.7
08/30/00	12.3	13.9	11.1	12.4	13.2	11.7	12.4	13.0	11.7	13.7	14.6	12.9
08/31/00	11.9	14.1	10.2	12.3	13.5	11.2	12.2	12.7	11.3	13.4	14.8	12.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Bear Creek upstream of Diversion			Bear Creek Diversion			Bear Creek downstream of Diversion			Bear Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	10.1	11.6	8.0	11.1	12.6	9.5	11.1	12.4	9.6	12.0	13.4	10.9
09/02/00	9.0	11.3	7.3	9.2	10.4	8.1	9.1	9.9	8.3	11.0	12.5	10.0
09/03/00	9.9	12.8	7.6	10.0	11.8	8.7	9.7	10.5	8.8	11.2	12.8	9.7
09/04/00	9.9	13.0	7.6	10.3	12.0	8.9	9.9	10.5	9.1	11.0	12.5	9.2
09/05/00	9.2	12.4	6.8	9.8	11.0	8.4	9.6	10.4	8.7	10.5	11.8	8.7
09/06/00	9.1	12.7	6.3	9.3	11.0	7.9	9.1	9.9	8.2	10.2	11.7	8.3
09/07/00	9.7	13.2	6.9	9.8	11.5	8.3	9.4	10.2	8.7	10.4	11.8	8.6
09/08/00	10.5	14.1	7.9	10.5	12.1	9.5	10.2	10.8	9.4	11.1	12.6	9.4
09/09/00	10.5	13.9	7.6	11.0	12.9	9.6	10.4	11.0	9.7	11.1	12.6	9.4
09/10/00	11.0	14.7	8.2	11.5	13.2	10.1	10.7	11.3	10.0	11.5	13.1	9.8
09/11/00	11.4	15.0	8.5	11.9	13.5	10.6	11.1	11.6	10.4	11.8	13.4	10.0
09/12/00	11.4	14.2	9.0	12.2	13.4	11.2	11.4	11.9	10.8	11.9	13.1	10.3
09/13/00	12.3	15.5	9.9	12.5	14.3	11.3	11.9	12.4	11.3	12.6	14.0	11.1
09/14/00	12.9	16.5	10.4	13.2	14.8	12.1	12.5	13.0	11.9	13.2	14.6	11.5
09/15/00	12.2	15.3	9.4	13.4	14.3	12.3	12.6	13.0	12.1	12.9	14.2	11.4
09/16/00	11.5	14.7	8.8	12.8	13.8	11.3	12.0	12.8	11.3	12.5	13.9	10.9
09/17/00	12.1	15.7	9.3	12.5	13.7	11.3	11.9	12.4	11.3	12.7	14.3	11.1
09/18/00	12.6	16.0	9.9	13.6	15.6	12.1	12.4	12.8	11.9	13.0	14.5	11.4
09/19/00	12.9	16.1	10.2	14.2	15.9	12.7	12.7	13.1	12.2	13.3	14.6	11.5
09/20/00	13.2	16.5	10.7	13.9	15.2	13.1	13.1	13.4	12.5	13.7	15.1	12.2
09/21/00	13.0	16.0	10.8	13.5	14.0	12.7	13.2	13.6	12.7	13.7	15.1	12.3
09/22/00	11.1	13.6	9.4	12.7	14.0	12.0	12.5	13.4	12.1	12.5	13.9	11.7
09/23/00	9.9	13.0	7.1	11.1	12.4	10.3	11.0	12.2	10.5	11.4	12.6	10.0
09/24/00	9.5	12.8	6.8	10.2	11.2	9.5	10.1	10.7	9.7	10.8	12.2	9.1
09/25/00	9.9	13.2	7.3	9.9	10.3	9.6	9.9	10.2	9.7	10.7	12.2	9.1
09/26/00	10.1	13.2	7.7	10.1	10.3	9.9	10.0	10.5	9.7	10.8	12.2	9.2
09/27/00	10.1	13.2	7.7	10.2	10.3	9.9	10.1	10.5	10.0	10.8	12.2	9.4
09/28/00	10.3	13.3	7.9	10.3	10.4	10.1	10.7	11.4	10.0	11.1	12.5	9.5
09/29/00	10.3	13.5	7.9	10.4	10.6	10.1	10.9	12.1	10.5	11.1	12.5	9.7
09/30/00	10.4	13.6	7.9	10.4	10.6	10.3	10.8	11.3	10.4	11.2	12.6	9.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Bear Creek upstream of Diversion			Bear Creek Diversion			Bear Creek downstream of Diversion			Bear Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	10.5	13.8	8.2	10.5	10.7	10.4	10.8	11.4	10.5	11.1	12.6	9.8
10/02/00	10.0	13.2	7.4	10.5	10.7	10.3	10.7	11.1	10.4	10.9	12.2	9.2
10/03/00	9.8	12.8	7.1	10.4	10.6	10.1	10.6	11.1	10.4	10.9	12.0	9.4
10/04/00	9.6	12.8	7.1	10.3	10.6	10.1	10.5	11.0	10.2	10.7	12.0	9.2
10/05/00	9.6	13.0	7.1	10.5	10.9	9.9	10.4	10.8	10.2	10.7	12.0	9.2
10/06/00	9.6	12.8	6.9	10.7	11.0	10.4	10.3	10.8	10.0	10.6	11.8	9.2
10/07/00	9.8	15.3	7.1	10.7	10.9	10.4	F	F	F	10.5	11.4	9.2
10/08/00	F	F	F	10.7	10.9	10.4	F	F	F	10.4	11.5	9.1
10/09/00	F	F	F	10.5	10.9	10.3	F	F	F	9.8	10.6	8.7
10/10/00	F	F	F	9.3	10.6	7.9	F	F	F	7.8	9.4	6.9
10/11/00	F	F	F	6.6	8.1	5.9	F	F	F	7.1	7.7	6.4
10/12/00	F	F	F	5.4	5.9	5.1	F	F	F	6.8	8.0	6.1
10/13/00	F	F	F	5.1	5.5	4.7	F	F	F	6.2	7.5	5.0
10/14/00	F	F	F	5.2	5.6	4.8	F	F	F	6.0	7.5	4.9
10/15/00	F	F	F	5.2	5.6	4.8	F	F	F	6.1	7.5	4.9
10/16/00	F	F	F	5.4	5.9	5.1	F	F	F	6.3	7.7	5.0
10/17/00	F	F	F	5.6	5.9	5.3	F	F	F	6.5	7.8	5.2
10/18/00	F	F	F	5.8	6.1	5.6	F	F	F	6.5	7.5	5.6
10/19/00	F	F	F	5.9	6.2	5.8	F	F	F	6.6	8.0	5.5
10/20/00	F	F	F	6.1	6.4	5.8	F	F	F	6.9	8.0	5.8
10/21/00	F	F	F	6.3	6.5	5.9	F	F	F	6.1	6.9	5.2
10/22/00	F	F	F	5.6	6.2	4.8	F	F	F	5.2	6.4	4.2
10/23/00	F	F	F	5.0	5.6	4.4	F	F	F	5.1	6.6	4.2
10/24/00	F	F	F	5.0	5.5	4.5	F	F	F	5.3	6.4	4.6
10/25/00	F	F	F	5.3	5.9	4.7	F	F	F	5.7	6.9	4.7
10/26/00	F	F	F	5.5	5.8	5.0	F	F	F	5.6	6.1	5.0
10/27/00	F	F	F	4.6	5.3	3.9	F	F	F	4.8	6.0	3.8
10/28/00	F	F	F	4.2	4.8	3.6	F	F	F	4.6	5.2	3.8
10/29/00	F	F	F	3.9	4.2	3.4	F	F	F	4.1	4.7	3.1
10/30/00	F	F	F	3.4	3.7	2.3	F	F	F	3.3	4.2	2.5
10/31/00	F	F	F	1.4	2.5	1.1	F	F	F	2.6	3.6	1.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00										5.5	8.0	3.4
06/03/00										6.1	8.6	3.9
06/04/00										6.5	9.1	4.8
06/05/00										6.5	8.8	4.9
06/06/00										6.6	9.3	4.3
06/07/00										6.2	8.0	4.8
06/08/00				6.5	8.2	5.5				3.9	5.3	3.2
06/09/00				7.4	11.2	4.2				4.9	7.0	2.9
06/10/00				8.4	11.8	5.5				5.5	7.3	3.4
06/11/00				9.3	12.9	6.2				6.2	8.5	4.0
06/12/00				10.4	12.9	7.8				7.0	9.1	4.9
06/13/00	10.2	13.8	6.8	11.9	15.5	8.9	12.4	15.7	9.6	8.1	10.5	5.9
06/14/00	10.8	14.3	7.5	12.5	15.9	9.3	12.9	15.8	10.1	8.5	11.1	6.2
06/15/00	11.7	14.7	8.5	13.5	16.5	10.6	13.5	16.1	10.7	9.4	11.9	7.3
06/16/00	12.2	14.6	9.5	14.2	17.1	11.7	13.7	16.3	11.3	10.1	12.2	8.0
06/17/00	11.9	14.0	9.6	13.5	16.7	11.3	14.2	16.3	9.7	9.7	11.3	8.2
06/18/00	11.4	13.3	9.3	13.1	15.9	10.9	14.8	18.4	10.5	9.4	11.0	7.9
06/19/00	10.8	12.9	8.4	12.5	15.5	9.8	14.2	16.9	11.6	9.1	10.7	7.1
06/20/00	11.3	13.2	9.2	13.1	16.2	10.6	15.0	18.7	11.8	9.7	11.0	8.0
06/21/00	11.0	12.3	9.6	12.9	14.7	10.9	14.5	15.8	13.2	9.8	11.0	8.3
06/22/00	10.8	12.4	9.3	12.7	15.1	10.7	13.4	15.5	12.1	10.0	11.3	8.5
06/23/00	11.0	12.1	9.8	12.6	14.9	10.9	13.1	14.9	11.6	10.1	11.3	9.0
06/24/00	10.6	12.1	9.2	12.4	15.1	10.1	13.1	16.1	11.1	9.7	10.8	8.5
06/25/00	9.9	10.7	9.2	11.9	14.0	10.1	12.3	13.6	11.5	9.2	9.7	8.5
06/26/00	9.2	10.2	8.1	11.7	14.0	9.8	12.3	14.1	10.5	8.9	10.0	7.9
06/27/00	9.7	11.0	8.2	11.9	14.4	9.6	12.9	15.0	11.5	9.5	10.8	8.0
06/28/00	10.3	11.0	9.3	12.6	15.1	10.6	12.6	13.8	11.6	10.0	10.8	9.1
06/29/00	10.4	11.5	9.2	12.8	15.5	10.6	12.6	14.5	11.5	10.0	11.0	8.8
06/30/00	10.8	12.3	9.5	12.9	15.4	10.7	13.8	16.9	11.6	10.3	11.4	9.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	10.4	12.3	8.8	12.3	15.5	9.6	13.7	16.4	11.6	9.3	10.8	8.2
07/02/00	9.9	11.8	8.2	11.6	14.9	8.9	13.6	16.6	11.6	8.8	10.3	7.6
07/03/00	9.8	11.5	8.4	11.1	13.7	8.9	13.0	15.3	11.5	8.6	9.7	7.9
07/04/00	9.0	10.9	7.1	10.2	13.5	7.3	12.3	15.7	9.9	8.0	9.6	6.6
07/05/00	9.1	10.9	7.3	10.3	13.2	7.5	12.3	14.7	10.5	8.1	9.6	6.8
07/06/00	9.3	10.9	7.8	10.8	14.0	8.1	12.9	16.4	10.4	8.5	10.2	7.3
07/07/00	8.8	10.4	7.1	10.4	13.4	7.8	13.1	16.3	10.8	8.5	10.2	7.4
07/08/00	9.1	10.9	7.3	10.7	14.0	7.8	13.2	16.8	10.8	8.6	10.2	7.3
07/09/00	9.5	11.3	7.8	11.3	14.3	8.7	13.8	17.1	11.6	8.8	10.5	7.6
07/10/00	9.7	10.7	8.5	11.8	14.3	9.5	14.0	16.4	11.9	9.4	11.0	8.2
07/11/00	10.3	11.9	8.7	12.4	15.5	9.8	14.3	17.6	12.1	9.9	11.4	8.8
07/12/00	10.6	11.9	9.2	12.6	15.1	10.4	14.7	17.9	12.8	10.0	11.4	9.1
07/13/00	10.3	11.6	8.8	12.3	14.7	9.9	14.5	17.7	12.2	9.7	11.3	8.8
07/14/00	10.3	11.8	8.8	12.4	15.2	9.8	14.6	18.0	12.2	9.7	11.3	8.6
07/15/00	10.9	12.1	9.8	13.1	15.1	11.0	15.0	18.0	13.0	10.2	11.6	9.1
07/16/00	11.1	11.9	10.2	F	F	F	15.0	17.7	13.5	10.2	11.0	9.6
07/17/00	10.3	11.3	9.3	F	F	F	14.0	16.8	12.1	9.8	11.1	9.0
07/18/00	9.7	10.7	8.5	F	F	F	14.1	17.6	11.8	9.4	11.1	8.3
07/19/00	9.4	10.7	8.1	12.6	14.9	10.3	14.2	17.6	11.8	9.2	11.0	8.0
07/20/00	9.9	11.0	8.5	13.2	15.5	11.0	14.7	18.0	12.4	9.5	11.3	8.2
07/21/00	10.1	11.0	9.0	13.5	16.0	11.5	14.9	18.2	12.7	9.8	11.4	8.5
07/22/00	9.9	10.9	8.7	13.5	16.2	11.2	15.0	18.4	12.7	9.8	11.4	8.3
07/23/00	10.0	11.0	8.8	13.8	16.8	11.5	15.1	18.4	12.8	9.8	11.6	8.5
07/24/00	10.4	11.3	9.3	14.1	17.3	12.1	15.3	18.5	13.2	10.1	12.0	9.0
07/25/00	10.7	11.5	9.8	14.3	17.4	12.4	15.5	18.7	13.5	10.5	12.4	9.4
07/26/00	10.8	11.5	9.9	14.3	17.8	12.4	15.4	18.5	13.5	10.5	11.9	9.7
07/27/00	10.2	11.0	9.3	14.1	18.1	11.8	15.0	18.4	12.7	10.1	11.4	9.3
07/28/00	9.9	10.9	9.0	14.1	18.1	11.7	14.8	18.0	12.5	10.0	11.4	9.0
07/29/00	10.2	11.0	9.2	14.5	18.4	12.1	15.2	18.4	13.0	10.3	11.4	9.3
07/30/00	11.1	11.9	10.1	15.5	19.2	13.2	16.1	19.2	14.1	11.1	12.2	10.2
07/31/00	11.5	12.3	10.7	15.6	19.1	13.7	15.5	17.7	14.2	11.4	12.0	10.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	11.9	12.6	11.5	15.5	17.9	14.3	15.1	16.6	13.9	11.7	12.4	11.3
08/02/00	11.6	12.3	11.0	14.8	17.8	13.7	14.4	16.3	13.3	11.7	12.7	11.0
08/03/00	11.1	11.5	10.7	14.4	16.5	13.4	13.6	15.2	12.7	11.3	11.7	11.0
08/04/00	10.9	11.6	10.2	14.6	17.8	12.9	14.1	17.6	11.5	11.3	12.2	10.5
08/05/00	10.7	11.2	9.9	14.9	18.2	12.7	15.3	18.4	13.2	11.1	11.9	10.3
08/06/00	11.0	11.9	10.4	15.5	19.7	13.2	15.5	18.7	13.5	11.4	12.5	10.7
08/07/00	11.0	11.8	10.2	15.3	19.9	13.0	15.4	18.2	13.5	11.3	12.5	10.7
08/08/00	10.7	11.6	9.9	15.1	19.7	12.6	15.1	18.0	13.0	11.1	12.4	10.3
08/09/00	10.3	11.3	9.6	14.6	19.4	12.3	14.8	17.7	12.8	10.6	11.9	10.0
08/10/00	9.5	10.7	8.7	14.4	19.2	11.7	14.1	17.2	11.8	10.1	11.3	9.4
08/11/00	8.7	10.1	7.6	14.5	20.0	11.0	14.0	17.2	11.6	9.7	10.8	8.6
08/12/00	8.7	10.1	7.5	15.2	21.3	11.5	14.3	17.6	11.9	9.7	10.8	8.6
08/13/00	8.7	10.2	7.5	15.6	21.8	11.8	14.5	17.6	12.2	9.7	11.4	8.6
08/14/00	8.9	10.9	7.9	16.2	22.0	12.4	14.6	17.9	12.4	9.8	11.3	8.8
08/15/00	9.3	11.2	8.4	17.1	23.0	12.9	14.8	17.6	12.7	10.2	12.0	9.3
08/16/00	9.5	11.0	8.7	17.0	21.7	13.7	15.0	17.6	13.0	10.4	12.0	9.6
08/17/00	9.5	11.3	8.7	16.9	21.5	13.8	15.0	17.6	13.3	10.5	11.9	9.7
08/18/00	8.7	10.6	7.6	D	D	D	14.1	16.8	12.1	9.7	11.3	9.1
08/19/00	8.1	9.9	7.0	D	D	D	13.5	16.3	11.5	9.2	11.1	8.3
08/20/00	7.6	9.5	6.4	D	D	D	13.5	16.4	11.3	8.9	10.7	7.9
08/21/00	7.5	9.5	6.2	D	D	D	13.7	16.6	11.6	8.8	10.3	8.0
08/22/00	7.6	9.5	6.4	D	D	D	13.9	16.8	11.8	8.8	10.2	8.0
08/23/00	8.1	9.9	7.3	D	D	D	14.3	17.1	12.4	9.2	11.0	8.5
08/24/00	8.2	10.1	7.0	D	D	D	14.5	17.1	12.4	9.4	11.4	8.5
08/25/00	8.8	9.3	8.2	D	D	D	14.5	15.3	13.6	10.0	10.8	9.6
08/26/00	8.9	9.9	8.4	D	D	D	13.8	14.9	12.7	10.1	10.8	9.6
08/27/00	8.9	9.8	8.2	D	D	D	14.5	16.9	12.7	10.1	11.1	9.4
08/28/00	8.8	9.6	8.1	D	D	D	14.2	15.2	13.3	10.1	11.7	9.4
08/29/00	9.2	9.6	8.8	D	D	D	13.8	14.5	13.3	10.2	10.5	9.9
08/30/00	9.2	9.8	8.8	D	D	D	13.7	15.3	12.7	10.0	10.3	9.7
08/31/00	8.5	9.2	8.1	D	D	D	13.7	15.7	12.4	9.4	10.2	9.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	7.6	8.2	6.8	D	D	D	12.3	13.6	10.7	8.6	9.3	7.9
09/02/00	6.9	7.5	6.5	D	D	D	12.0	14.2	10.5	7.9	9.0	7.4
09/03/00	6.5	7.8	5.7	D	D	D	13.1	15.5	11.3	8.0	9.6	7.3
09/04/00	6.0	7.6	5.1	D	D	D	12.9	15.2	11.3	7.6	9.1	7.0
09/05/00	5.3	6.8	4.3	D	D	D	12.4	14.5	10.7	6.9	8.5	6.2
09/06/00	4.9	6.5	3.7	D	D	D	12.6	15.0	10.7	6.5	8.3	5.6
09/07/00	5.0	6.7	3.7	D	D	D	12.9	15.3	11.0	6.6	7.1	5.9
09/08/00	5.5	7.1	4.5	D	D	D	13.5	15.8	11.8	7.0	7.4	6.5
09/09/00	5.2	7.0	4.0	D	D	D	13.3	15.7	11.6	6.8	7.3	6.2
09/10/00	5.6	7.3	4.7	D	D	D	13.6	16.0	11.9	7.0	7.6	6.5
09/11/00	5.5	7.3	4.3	D	D	D	13.8	16.1	11.9	7.0	7.6	6.5
09/12/00	5.8	7.1	4.7	D	D	D	13.6	15.2	12.1	7.2	7.7	6.6
09/13/00	6.6	8.1	5.7	D	D	D	14.3	16.4	12.8	7.9	8.5	7.3
09/14/00	7.1	8.7	6.4	D	D	D	14.6	16.9	13.0	8.3	8.8	8.0
09/15/00	6.6	8.2	5.6	D	D	D	14.1	16.3	12.7	8.2	8.5	7.7
09/16/00	6.5	8.2	5.4	D	D	D	13.7	16.0	12.1	8.0	8.3	7.6
09/17/00	6.9	8.5	6.1	D	D	D	14.2	16.8	12.4	8.3	8.8	7.9
09/18/00	7.0	8.5	5.9	D	D	D	14.7	17.2	13.2	8.4	8.8	8.0
09/19/00	7.0	8.5	5.9	D	D	D	14.8	17.6	13.0	8.5	9.0	7.9
09/20/00	7.4	8.8	6.5	D	D	D	15.1	17.6	13.3	8.7	9.1	8.3
09/21/00	7.6	8.8	6.8	D	D	D	15.0	17.4	13.8	8.8	9.1	8.5
09/22/00	6.7	7.8	5.9	D	D	D	13.7	15.7	12.8	8.2	8.6	7.7
09/23/00	6.0	7.1	5.3	D	D	D	12.9	15.2	11.3	7.2	7.7	6.8
09/24/00	5.2	6.7	4.2	D	D	D	12.9	15.5	11.1	6.7	7.1	6.2
09/25/00	5.2	6.5	4.2	D	D	D	13.2	15.7	11.6	6.7	7.1	6.2
09/26/00	5.1	6.5	4.2	D	D	D	13.3	15.7	11.8	6.6	7.0	6.2
09/27/00	5.2	6.4	4.3	D	D	D	13.3	15.7	11.8	6.6	7.0	6.2
09/28/00	5.3	6.5	4.5	D	D	D	13.4	15.5	11.9	6.7	7.1	6.3
09/29/00	5.2	6.5	4.5	D	D	D	13.5	15.8	12.1	6.6	7.0	6.3
09/30/00	5.3	6.5	4.5	D	D	D	13.5	16.0	11.9	6.6	7.1	6.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	5.2	6.4	4.5	D	D	D	13.5	15.7	12.1	6.7	7.0	6.3
10/02/00	4.9	6.1	4.0	D	D	D	13.0	15.2	11.5	6.4	6.8	6.0
10/03/00	4.8	5.7	3.9	D	D	D	13.0	15.0	11.5	6.4	6.6	6.0
10/04/00	4.7	5.6	3.9	D	D	D	12.9	15.0	11.5	6.3	6.6	5.9
10/05/00	4.7	5.6	4.0	D	D	D	12.9	15.2	11.5	6.2	6.5	5.9
10/06/00	4.6	5.4	3.9	D	D	D	12.9	15.0	11.5	6.2	6.5	5.9
10/07/00	4.7	5.6	3.9	D	D	D	12.9	14.7	11.8	6.2	6.5	5.9
10/08/00	4.4	5.3	3.7	D	D	D	12.8	14.9	11.5	6.0	6.3	5.7
10/09/00	4.1	5.1	3.2	D	D	D	12.0	13.3	10.8	5.8	6.0	5.1
10/10/00	3.1	3.6	2.6	D	D	D	9.4	10.8	8.5	4.0	4.9	3.4
10/11/00	2.0	2.6	1.5	D	D	D	9.0	10.2	8.1	3.0	3.4	2.4
10/12/00	2.0	2.3	1.8	D	D	D	9.9	12.1	8.8	2.9	3.1	2.8
10/13/00	1.6	2.1	1.0	D	D	D	10.0	11.9	8.7	2.7	3.1	2.4
10/14/00	1.7	2.3	1.3	D	D	D	10.1	12.1	9.0	2.8	3.1	2.6
10/15/00	1.7	2.3	1.3	D	D	D	10.1	12.1	8.8	2.8	3.1	2.4
10/16/00	1.9	2.3	1.5	D	D	D	10.2	12.2	9.0	2.9	3.2	2.6
10/17/00	2.0	2.5	1.7	D	D	D	10.2	12.1	9.0	3.0	3.4	2.8
10/18/00	2.3	2.9	1.8	D	D	D	10.4	11.8	9.3	3.3	3.7	2.9
10/19/00	2.3	2.8	1.8	D	D	D	10.1	11.9	8.8	3.4	3.7	3.1
10/20/00	2.5	3.1	2.0	D	D	D	10.2	11.8	9.1	3.5	3.9	3.2
10/21/00	1.9	2.5	0.5	D	D	D	9.1	10.1	7.7	3.3	3.7	2.8
10/22/00	1.3	1.7	0.9	D	D	D	7.8	9.7	6.7	2.4	2.8	2.1
10/23/00	1.4	2.0	1.0	D	D	D	8.4	10.4	7.3	2.5	2.8	2.1
10/24/00	1.5	2.0	1.0	D	D	D	8.8	10.4	7.9	2.6	2.9	2.3
10/25/00	1.7	2.1	1.5	D	D	D	8.9	10.1	8.1	2.8	2.9	2.6
10/26/00	1.6	2.0	0.7	D	D	D	8.3	9.4	7.5	2.5	2.8	2.1
10/27/00	1.1	1.3	0.7	D	D	D	7.9	9.4	6.9	2.0	2.1	1.6
10/28/00	1.0	1.3	0.5	D	D	D	8.1	8.7	7.3	2.0	2.3	1.6
10/29/00	0.9	1.2	0.7	D	D	D	7.0	7.8	5.6	1.5	2.1	1.0
10/30/00	0.3	0.7	0.1	D	D	D	6.0	7.7	4.9	1.0	1.2	0.7
10/31/00	0.1	0.2	0.1	D	D	D	6.0	7.5	5.3	0.7	1.0	0.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Camp 62 Creek upstream of Diversion			Camp 62 Creek upstream of Confluence			Bolsillo Creek Diversion			Bolsillo Creek upstream of SFSJR		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Camp 62 Creek upstream of Diversion			Camp 62 Creek upstream of Confluence			Bolsillo Creek Diversion			Bolsillo Creek upstream of SFSJR		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
06/01/00												
06/02/00				6.3	9.0	4.0	6.9	8.9	4.8	7.9	10.0	5.8
06/03/00				6.9	9.8	4.6	7.6	9.6	5.5	8.6	10.9	6.5
06/04/00				7.3	9.9	5.4	8.1	10.0	6.4	9.1	11.0	7.3
06/05/00				7.3	9.8	5.6	8.1	9.8	6.6	9.1	10.9	7.5
06/06/00				7.4	10.1	5.1	8.3	10.1	6.4	9.2	11.2	7.2
06/07/00	5.5	8.1	3.9	7.1	9.4	5.4	8.1	9.6	6.9	9.1	11.0	7.6
06/08/00	3.6	4.5	3.2	5.0	6.2	4.5	5.6	7.2	4.7	6.7	8.1	5.6
06/09/00	4.7	7.1	2.4	5.8	8.2	3.7	5.9	7.6	4.1	6.7	8.7	4.7
06/10/00	5.2	7.6	2.9	6.6	8.7	4.5	6.8	8.6	5.0	7.6	9.5	5.6
06/11/00	5.9	8.7	3.5	7.2	9.6	5.0	7.7	9.5	5.9	8.4	10.6	6.4
06/12/00	6.5	8.8	4.5	8.0	9.9	6.1	8.7	10.0	7.0	9.6	11.3	7.8
06/13/00	7.3	10.5	5.3	9.0	11.5	6.8	10.0	11.5	8.1	10.9	12.9	8.9
06/14/00	7.6	10.7	5.3	9.2	11.6	6.8	10.7	12.1	8.7	11.6	13.4	9.5
06/15/00	8.5	11.3	6.2	10.2	12.4	7.9	11.7	13.1	10.0	12.6	14.3	10.6
06/16/00	9.0	11.9	6.8	10.8	12.9	8.7	12.3	13.5	10.7	13.3	14.8	11.7
06/17/00	8.7	11.1	7.0	10.5	12.2	8.8	12.1	13.4	11.0	12.9	14.4	11.5
06/18/00	8.6	10.7	6.8	10.3	12.2	8.7	11.7	13.1	10.6	12.6	14.1	11.2
06/19/00	8.3	10.5	5.9	10.0	11.8	8.1	11.1	12.3	9.5	12.1	13.5	10.4
06/20/00	9.0	11.0	7.0	10.7	12.5	8.8	11.6	12.9	10.3	12.4	14.0	10.7
06/21/00	9.1	10.8	7.4	10.7	12.5	9.1	11.6	12.7	10.6	12.5	14.1	10.9
06/22/00	9.3	11.3	7.4	11.0	12.9	9.3	11.7	12.9	10.4	12.6	14.3	11.2
06/23/00	9.5	11.1	7.9	11.1	12.4	9.6	11.7	13.1	10.6	12.5	14.0	11.2
06/24/00	9.2	10.7	7.4	10.9	12.7	9.3	11.2	12.4	10.1	12.2	13.7	10.7
06/25/00	8.6	9.3	7.7	10.3	11.5	9.3	10.5	11.5	10.0	11.7	13.1	10.6
06/26/00	8.5	9.9	7.1	10.3	12.1	8.8	10.2	11.4	9.2	11.5	13.4	10.0
06/27/00	9.2	10.8	7.4	10.9	12.9	9.1	10.6	11.8	9.5	11.9	13.7	10.3
06/28/00	9.6	10.5	8.5	11.4	12.5	10.2	10.9	11.8	10.1	12.2	13.7	11.0
06/29/00	9.7	11.1	8.2	11.4	13.0	9.9	11.1	12.4	10.0	12.3	14.0	10.7
06/30/00	10.0	11.3	8.8	11.9	13.8	10.4	11.3	12.7	10.3	12.7	14.3	11.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Camp 62 Creek upstream of Diversion			Camp 62 Creek upstream of Confluence			Bolsillo Creek Diversion			Bolsillo Creek upstream of SFSJR		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
07/01/00	9.0	10.7	7.4	11.0	13.0	9.3	10.4	12.1	9.2	11.7	13.4	10.1
07/02/00	8.5	10.2	6.8	10.5	12.5	8.8	9.8	11.5	8.4	11.0	12.7	9.3
07/03/00	8.5	10.1	7.4	10.4	12.4	8.8	9.5	11.2	8.4	10.8	12.3	9.5
07/04/00	7.7	9.4	6.0	9.9	11.9	8.1	8.8	10.6	7.3	10.1	11.8	8.4
07/05/00	8.0	9.7	6.3	10.1	12.2	8.4	8.8	10.6	7.3	10.2	12.0	8.6
07/06/00	8.4	10.2	7.0	10.6	12.7	8.7	9.0	10.9	7.6	10.4	12.3	8.7
07/07/00	8.2	10.1	6.7	10.6	12.7	8.7	8.9	10.7	7.5	10.4	12.1	8.7
07/08/00	8.4	10.2	6.8	10.8	12.9	8.8	8.9	10.9	7.5	10.5	12.4	8.7
07/09/00	8.8	10.5	7.4	11.2	13.2	9.4	9.4	11.2	8.0	10.9	12.7	9.2
07/10/00	9.4	11.1	8.1	11.8	13.8	9.9	9.8	11.7	8.4	11.3	13.2	9.6
07/11/00	9.9	11.5	8.7	12.3	14.1	10.5	10.3	12.0	9.0	11.8	13.5	10.3
07/12/00	9.9	11.5	8.8	12.5	14.2	10.9	10.5	12.4	9.2	11.9	13.7	10.4
07/13/00	9.6	11.3	8.5	12.3	14.2	10.4	10.4	12.3	9.0	11.7	13.5	10.0
07/14/00	9.6	11.3	8.2	12.5	14.4	10.5	10.4	12.3	9.0	11.8	13.7	10.1
07/15/00	10.0	11.6	8.8	12.9	14.7	11.3	10.7	12.4	9.5	12.0	13.8	10.6
07/16/00	10.1	11.1	9.3	13.1	14.7	11.9	10.8	12.0	9.8	12.2	13.7	11.0
07/17/00	9.7	11.5	8.5	12.7	14.7	11.0	10.5	12.3	9.2	11.8	13.7	10.3
07/18/00	9.4	11.1	8.2	12.5	14.6	10.5	10.3	12.1	8.9	11.5	13.5	9.8
07/19/00	9.3	11.0	7.9	12.5	14.6	10.5	10.2	12.0	8.6	11.5	13.5	9.6
07/20/00	9.6	11.5	8.2	13.0	15.2	11.0	10.5	12.4	8.9	11.7	14.1	9.8
07/21/00	9.8	11.6	8.4	13.4	15.5	11.5	10.8	12.7	9.2	11.9	14.4	9.8
07/22/00	9.8	11.5	8.4	13.5	15.7	11.5	10.8	12.6	9.2	12.0	14.6	9.8
07/23/00	9.9	11.6	8.5	13.7	15.8	11.6	10.9	12.7	9.3	12.0	14.6	9.8
07/24/00	10.1	11.9	8.8	13.9	16.1	11.9	11.0	12.9	9.6	12.0	14.6	10.0
07/25/00	10.4	12.1	9.3	14.2	16.5	12.4	11.3	12.9	10.0	12.2	14.8	10.3
07/26/00	10.5	12.2	9.4	14.3	16.5	12.7	11.3	12.9	10.0	12.0	14.0	10.3
07/27/00	10.1	11.9	8.8	14.0	16.1	12.1	10.9	12.6	9.5	11.7	13.8	9.8
07/28/00	10.0	11.8	8.7	13.9	16.1	11.8	10.8	12.6	9.3	11.7	13.8	9.6
07/29/00	10.3	12.1	9.0	14.4	16.5	12.4	11.1	12.6	9.8	12.0	14.0	10.1
07/30/00	11.2	12.9	9.9	15.3	17.4	13.5	11.9	13.4	10.6	12.7	14.6	11.0
07/31/00	11.5	12.7	10.5	15.5	17.3	13.9	12.2	13.4	11.2	12.7	14.8	11.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Camp 62 Creek upstream of Diversion			Camp 62 Creek upstream of Confluence			Bolsillo Creek Diversion			Bolsillo Creek upstream of SFSJR		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
08/01/00	11.7	12.5	11.0	15.9	17.1	14.9	12.5	13.4	11.7	12.9	14.4	11.8
08/02/00	11.7	13.2	10.8	15.4	17.1	14.1	12.2	13.5	11.4	12.4	14.1	11.2
08/03/00	11.3	11.8	10.8	14.8	15.7	13.9	11.9	12.3	11.4	12.1	12.9	11.2
08/04/00	11.4	12.9	10.4	14.9	16.6	13.3	11.8	13.1	10.7	12.4	14.1	10.9
08/05/00	11.4	12.9	10.2	15.1	17.3	13.3	12.0	13.5	10.7	12.6	14.4	10.9
08/06/00	11.7	13.3	10.7	15.6	17.7	13.8	12.3	13.7	11.0	12.8	14.9	11.2
08/07/00	11.6	13.3	10.5	15.3	17.3	13.6	12.1	13.5	10.9	12.4	14.8	10.9
08/08/00	11.3	12.7	10.2	15.0	16.9	13.3	11.8	13.1	10.6	12.2	14.6	10.4
08/09/00	10.8	12.4	9.7	14.6	16.6	12.9	11.3	12.6	10.1	11.9	14.3	10.3
08/10/00	10.4	11.9	9.3	14.0	16.0	12.1	10.8	12.1	9.6	11.4	14.1	9.5
08/11/00	10.1	11.8	8.7	13.9	16.0	11.8	10.4	11.8	9.0	11.2	14.3	9.0
08/12/00	10.2	11.9	8.8	14.1	16.1	11.8	10.6	12.0	9.2	11.4	14.6	9.0
08/13/00	10.2	11.8	9.0	14.2	16.1	12.2	10.6	12.0	9.2	11.5	14.8	9.3
08/14/00	10.4	11.9	9.1	14.4	16.3	12.4	10.8	12.1	9.5	11.6	15.2	9.3
08/15/00	10.8	12.4	9.6	14.9	16.8	13.0	11.1	12.4	10.0	12.1	15.7	10.0
08/16/00	11.1	12.7	9.9	15.1	16.9	13.3	11.4	12.7	10.3	12.3	15.5	10.3
08/17/00	11.1	12.7	10.1	15.2	17.1	13.6	11.4	12.6	10.4	12.5	16.2	10.6
08/18/00	10.4	12.1	9.3	14.2	16.0	12.4	10.7	11.7	9.5	11.6	15.4	9.3
08/19/00	9.9	11.9	8.7	13.5	15.5	11.6	10.0	11.2	8.7	11.0	15.1	8.6
08/20/00	9.7	11.8	8.4	13.3	15.2	11.5	9.7	10.9	8.4	10.9	15.1	8.4
08/21/00	9.8	12.2	8.5	13.4	15.3	11.5	9.7	10.9	8.4	11.2	15.4	8.7
08/22/00	9.8	12.4	8.5	13.5	15.3	11.5	9.7	10.9	8.4	11.4	15.7	8.7
08/23/00	10.2	12.7	9.0	13.9	15.8	12.2	10.0	11.2	9.0	11.9	16.2	9.5
08/24/00	10.3	12.4	9.0	14.1	15.8	12.1	10.1	11.2	8.9	12.2	16.2	9.5
08/25/00	10.7	11.6	10.2	14.9	15.8	14.1	10.5	11.0	10.1	12.7	14.3	11.5
08/26/00	10.8	12.2	9.9	15.1	16.6	13.9	10.8	12.0	10.0	13.2	16.2	11.5
08/27/00	10.8	11.9	10.1	15.0	16.5	13.6	10.9	11.7	10.1	12.9	15.9	11.2
08/28/00	10.8	12.1	10.1	14.9	15.8	13.6	10.8	11.5	10.1	12.7	15.2	11.2
08/29/00	10.7	11.0	10.4	14.8	15.5	14.6	10.7	11.0	10.4	12.3	13.4	11.8
08/30/00	10.5	11.1	10.1	14.6	15.5	13.9	10.4	10.9	10.0	12.1	13.7	11.3
08/31/00	10.0	10.8	9.3	13.8	15.0	12.7	9.9	10.6	9.2	11.3	13.1	10.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Camp 62 Creek upstream of Diversion			Camp 62 Creek upstream of Confluence			Bolsillo Creek Diversion			Bolsillo Creek upstream of SFSJR		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
09/01/00	8.9	9.7	8.1	12.6	13.6	11.6	8.6	9.5	7.6	9.9	10.9	9.0
09/02/00	8.3	9.3	7.7	12.2	13.8	11.2	7.9	8.6	7.3	10.0	11.3	8.7
09/03/00	8.4	9.6	7.6	12.4	13.9	11.2	8.0	9.0	7.0	10.6	12.1	9.5
09/04/00	8.1	9.3	7.1	11.7	13.5	10.1	7.7	8.7	6.7	10.1	11.7	8.6
09/05/00	7.5	8.7	6.5	11.1	12.5	9.3	7.1	8.1	5.9	9.5	11.0	7.9
09/06/00	7.3	8.8	6.2	10.9	12.7	9.0	6.9	8.0	5.8	9.3	11.2	7.5
09/07/00	7.5	9.3	6.3	11.2	13.0	9.1	7.2	8.1	5.9	9.4	11.3	7.5
09/08/00	8.0	10.4	7.1	11.8	13.5	10.2	7.6	8.6	6.7	9.7	11.8	8.1
09/09/00	7.8	10.2	6.7	11.6	13.3	9.8	7.5	8.4	6.4	9.4	11.5	7.6
09/10/00	8.1	10.4	7.0	11.9	13.6	10.2	7.7	8.7	6.7	9.7	12.0	7.9
09/11/00	8.1	10.5	7.0	12.1	13.8	10.2	7.8	8.9	6.7	9.8	12.1	7.9
09/12/00	8.4	10.5	7.3	12.1	13.5	10.4	8.1	9.0	7.0	9.8	11.7	7.9
09/13/00	9.1	10.1	8.2	13.3	14.9	11.8	8.9	9.8	8.0	10.9	13.1	9.0
09/14/00	9.4	10.4	8.7	13.5	15.2	12.1	9.4	10.3	8.6	11.2	13.5	9.5
09/15/00	9.2	10.1	8.4	13.1	14.7	11.5	9.1	10.0	8.3	10.9	13.1	9.0
09/16/00	9.0	10.1	8.2	12.7	14.2	11.0	8.9	9.8	8.1	10.5	12.9	8.6
09/17/00	9.4	10.5	8.7	13.1	14.9	11.5	9.2	10.1	8.4	10.9	13.4	9.0
09/18/00	9.5	10.4	8.7	13.3	15.0	11.8	9.4	10.3	8.6	11.1	13.5	9.2
09/19/00	9.6	10.5	8.7	13.5	15.0	11.8	9.5	10.3	8.6	11.3	13.7	9.3
09/20/00	9.8	10.8	9.1	13.7	15.3	12.2	9.8	10.6	9.0	11.6	14.1	9.8
09/21/00	9.8	10.7	9.3	13.7	15.2	12.4	9.7	10.4	9.2	11.6	14.0	10.1
09/22/00	8.9	9.3	8.5	12.5	13.3	11.9	8.6	9.2	8.0	10.4	12.0	9.6
09/23/00	8.0	8.7	7.1	11.4	12.7	10.1	7.5	8.1	6.6	9.3	11.0	7.6
09/24/00	7.6	8.5	6.8	11.0	12.5	9.3	7.2	8.0	6.4	8.8	10.9	6.9
09/25/00	7.7	8.5	6.8	11.2	12.7	9.6	7.3	8.1	6.4	8.9	11.0	7.2
09/26/00	7.7	8.5	7.0	11.4	12.9	9.9	7.3	8.0	6.6	9.0	10.9	7.5
09/27/00	7.7	8.4	7.0	11.4	12.9	9.9	7.3	8.1	6.6	9.1	10.9	7.5
09/28/00	7.8	8.4	7.1	11.6	12.9	10.1	7.4	8.1	6.7	9.3	10.9	7.8
09/29/00	7.7	8.5	7.1	11.6	13.0	10.2	7.5	8.3	6.7	9.3	10.7	7.8
09/30/00	7.8	8.5	7.0	11.6	13.2	10.1	7.6	8.4	6.7	9.3	11.0	7.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Camp 62 Creek upstream of Diversion			Camp 62 Creek upstream of Confluence			Bolsillo Creek Diversion			Bolsillo Creek upstream of SFSJR		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/00	7.8	8.5	7.1	11.6	13.2	10.2	7.6	8.4	7.0	9.2	10.9	7.9
10/02/00	7.6	8.4	6.8	11.2	12.7	9.6	7.3	8.1	6.6	8.9	12.3	7.2
10/03/00	7.5	8.2	6.8	11.1	12.4	9.6	7.2	7.8	6.4	8.8	10.1	7.3
10/04/00	7.4	8.1	6.8	11.1	12.4	9.6	7.1	7.8	6.4	8.7	10.1	7.3
10/05/00	7.4	8.1	6.8	11.1	12.5	9.8	7.1	7.8	6.4	8.7	10.1	7.5
10/06/00	7.4	8.1	6.8	11.1	12.4	9.6	7.1	7.8	6.4	8.7	10.0	7.3
10/07/00	7.3	7.7	6.8	11.1	12.2	9.8	7.0	7.5	6.4	8.8	10.0	7.5
10/08/00	7.2	7.7	6.7	10.9	12.2	9.6	6.9	7.6	6.2	8.6	9.6	7.3
10/09/00	6.9	7.4	6.0	10.4	11.5	9.1	6.6	7.2	5.5	8.2	9.3	6.9
10/10/00	4.5	6.0	3.4	8.0	9.9	7.3	3.8	5.3	2.8	6.3	7.6	5.0
10/11/00	3.3	3.7	2.9	7.4	8.1	6.8	3.0	3.3	2.7	6.7	7.3	6.1
10/12/00	3.5	4.0	3.2	7.7	8.7	7.1	3.0	3.4	2.8	7.1	7.8	6.7
10/13/00	3.4	4.0	2.9	7.7	9.0	6.5	3.0	3.6	2.3	6.9	7.9	6.1
10/14/00	3.5	4.2	3.1	7.9	9.3	6.7	3.1	3.8	2.7	6.9	7.8	5.9
10/15/00	3.6	4.3	3.1	8.0	9.3	6.8	3.2	3.9	2.7	6.9	7.8	5.9
10/16/00	3.8	4.5	3.2	8.3	9.6	7.0	3.4	4.2	2.8	7.0	7.9	6.1
10/17/00	4.0	4.8	3.5	8.4	9.8	7.1	3.7	4.4	3.1	7.0	7.8	6.1
10/18/00	4.3	5.1	3.7	8.6	9.8	7.4	3.9	4.7	3.1	7.1	7.9	6.2
10/19/00	4.4	4.9	3.9	8.5	9.8	7.3	4.0	4.7	3.4	7.1	7.9	6.2
10/20/00	4.6	5.3	4.0	8.7	10.1	7.6	4.2	5.0	3.6	7.3	8.2	6.5
10/21/00	4.1	4.6	3.4	7.9	8.8	7.0	3.7	4.2	2.8	6.8	7.5	5.9
10/22/00	3.0	3.5	2.6	6.8	7.8	6.1	2.6	3.1	2.0	6.0	6.9	5.5
10/23/00	3.3	4.0	2.8	6.8	8.2	5.6	2.7	3.4	2.2	6.3	7.3	5.3
10/24/00	3.5	4.2	3.1	7.3	8.4	6.2	3.0	3.6	2.5	6.5	7.5	5.6
10/25/00	3.7	4.0	3.4	7.6	8.5	6.7	3.1	3.6	2.7	6.6	7.3	5.9
10/26/00	3.3	3.7	2.8	7.6	8.4	7.0	2.7	3.3	2.0	6.5	7.2	5.9
10/27/00	2.7	2.9	2.3	6.9	7.8	6.2	2.0	2.3	1.7	5.8	6.5	5.1
10/28/00	2.8	3.4	2.1	6.9	7.8	5.9	2.2	2.8	1.5	5.8	6.5	5.1
10/29/00	2.2	2.9	1.6	6.5	7.3	5.6	1.4	2.0	0.9	4.8	6.1	4.0
10/30/00	1.6	2.0	1.0	5.2	5.9	4.5	0.9	1.2	0.4	4.2	4.8	3.7
10/31/00	1.2	1.6	0.8	4.8	5.6	4.0	0.5	0.9	0.3	4.1	4.7	3.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00	9.8	13.5	8.2	13.9	15.2	12.3	10.7	13.3	9.3			
06/08/00	8.7	9.5	8.4	12.2	14.1	10.9	9.5	10.5	9.1			
06/09/00	9.6	12.9	7.9	11.6	14.0	9.6	9.4	11.9	8.2			
06/10/00	9.7	13.0	8.1	12.9	14.6	11.0	10.1	12.7	8.7			
06/11/00	9.9	13.5	8.2	13.3	15.1	11.3	10.4	13.0	9.0			
06/12/00	10.0	12.7	8.5	13.3	14.3	12.1	10.8	13.0	9.6			
06/13/00	10.4	13.9	8.7	14.1	16.2	12.1	11.1	13.9	9.7			
06/14/00	10.5	14.1	8.7	14.4	16.0	12.7	11.3	14.2	9.7			
06/15/00	10.6	14.1	8.9	14.7	16.0	13.1	11.6	14.5	10.1			
06/16/00	10.5	13.9	9.0	14.8	16.0	13.4	11.7	14.2	10.4			
06/17/00	10.3	13.6	8.9	14.5	16.0	13.1	11.4	13.9	10.1			
06/18/00	10.3	13.3	8.9	14.2	15.4	12.9	11.4	13.9	10.1			
06/19/00	10.4	13.8	8.7	14.1	15.5	12.4	11.2	13.9	9.7			
06/20/00	10.5	13.9	8.9	14.3	15.9	12.7	11.4	14.1	9.9			
06/21/00	10.5	14.1	8.9	14.4	15.9	12.9	11.5	14.1	10.1			
06/22/00	10.4	14.1	9.0	14.3	15.7	12.9	11.4	13.9	10.1			
06/23/00	10.1	13.6	9.0	13.9	15.1	12.6	11.1	13.2	10.1			
06/24/00	10.4	13.8	8.9	13.6	15.7	12.0	11.1	13.8	9.7			
06/25/00	9.7	12.6	8.9	13.3	14.6	12.6	10.7	12.2	9.9			
06/26/00	9.9	13.3	8.7	12.7	15.1	11.2	10.5	12.2	9.4			
06/27/00	10.1	13.0	8.9	12.8	14.1	11.5	10.6	12.5	9.6	14.3	17.0	12.0
06/28/00	9.9	12.4	9.0	12.8	14.8	11.8	10.7	12.2	9.7	14.7	15.7	13.2
06/29/00	10.2	13.3	8.9	12.9	15.4	11.5	10.7	12.8	9.6	14.9	17.1	12.6
06/30/00	10.2	13.0	9.0	13.3	14.6	12.0	11.0	13.2	9.9	15.3	16.8	13.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	10.2	13.6	8.7	13.5	15.2	11.8	10.9	13.5	9.6	14.9	17.0	12.9
07/02/00	10.1	13.5	8.5	13.7	15.4	12.0	10.8	13.5	9.3	14.5	16.5	12.4
07/03/00	10.0	13.3	8.5	13.6	15.1	12.0	10.8	13.3	9.4	14.3	16.2	12.4
07/04/00	9.9	13.5	8.4	13.4	14.9	11.7	10.6	13.2	9.1	13.7	15.7	11.6
07/05/00	9.4	11.9	8.4	11.9	14.1	9.0	10.1	12.7	9.3	13.6	15.5	11.6
07/06/00	9.7	10.2	9.3				9.8	11.0	9.1	14.0	15.9	12.1
07/07/00	9.7	10.4	9.3				9.8	11.1	9.1	13.9	15.9	12.1
07/08/00	9.7	10.6	9.3				9.8	11.3	9.1	13.9	15.9	12.0
07/09/00	9.7	10.6	9.3				9.9	11.3	9.1	14.4	16.3	12.4
07/10/00	9.8	10.6	9.5				9.9	11.3	9.3	14.9	16.8	12.9
07/11/00	9.8	10.4	9.6				10.0	11.3	9.4	15.3	17.0	13.5
07/12/00	9.8	10.6	9.5				10.0	11.5	9.3	15.4	17.3	13.5
07/13/00	9.9	11.0	9.5				10.2	12.1	9.3	15.2	17.1	13.2
07/14/00	10.0	11.6	9.3				10.3	13.2	9.0	15.2	17.1	13.3
07/15/00	9.9	10.7	9.5				10.1	11.6	9.4	15.5	17.4	13.7
07/16/00	9.9	10.7	9.6				10.1	11.6	9.4	15.6	17.1	14.3
07/17/00	9.8	10.7	9.5				10.0	11.6	9.3	15.1	17.0	13.3
07/18/00	9.8	10.6	9.5				9.9	11.3	9.1	14.8	16.6	12.9
07/19/00	9.8	10.4	9.5	10.0	11.0	9.5	10.0	11.3	9.3	14.5	16.3	12.6
07/20/00	9.9	10.4	9.6	10.1	11.0	9.6	10.0	11.1	9.4	14.7	16.8	12.7
07/21/00	9.9	11.3	9.6	10.1	11.2	9.6	10.1	11.1	9.4	15.1	17.0	13.0
07/22/00	9.9	10.4	9.6	10.1	11.0	9.6	10.0	11.1	9.4	15.2	17.0	13.3
07/23/00	9.9	10.6	9.6	10.1	11.0	9.6	10.1	11.3	9.6	15.2	17.0	13.3
07/24/00	9.9	10.2	9.8	10.1	10.7	9.6	10.1	10.8	9.6	15.2	16.8	13.3
07/25/00	9.9	10.2	9.8	10.1	10.9	9.8	10.1	11.0	9.6	15.1	16.8	13.3
07/26/00	10.0	10.6	9.8	10.2	11.2	9.8	10.1	11.1	9.6	15.1	16.8	13.3
07/27/00	10.0	10.6	9.6	10.2	11.2	9.6	10.1	11.1	9.4	14.8	16.5	13.0
07/28/00	10.0	10.6	9.8	10.2	11.2	9.6	10.1	11.3	9.6	14.7	16.6	12.9
07/29/00	10.0	10.6	9.8	10.3	11.2	9.8	10.2	11.3	9.6	15.0	16.6	13.3
07/30/00	10.1	10.6	9.9	10.3	11.0	10.0	10.3	11.0	9.7	15.5	16.8	14.1
07/31/00	10.1	10.6	9.9	10.3	11.2	10.0	10.2	11.3	9.9	15.4	16.6	14.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	10.1	10.6	9.9	10.3	11.0	10.0	10.2	11.1	9.9	15.3	16.2	14.4
08/02/00	10.1	10.6	9.9	10.2	11.0	10.0	10.2	11.0	9.9	14.5	15.5	13.3
08/03/00	10.1	10.6	9.9	10.2	10.7	10.0	10.1	10.7	9.9	13.9	14.6	13.3
08/04/00	10.1	10.7	9.9	10.4	11.3	10.0	10.3	11.5	9.7	13.5	15.5	11.3
08/05/00	10.1	10.7	9.9	10.4	11.2	10.0	10.3	11.5	9.7	15.2	17.1	13.5
08/06/00	10.2	10.6	9.9	10.4	11.2	10.0	10.4	11.3	9.9	15.7	17.3	14.1
08/07/00	10.2	10.6	10.1	10.4	11.2	10.1	10.4	11.3	9.9	15.5	17.0	14.0
08/08/00	10.2	10.6	10.1	10.4	11.0	10.1	10.4	11.1	9.9	15.1	16.6	13.5
08/09/00	10.2	10.6	10.1	10.4	11.0	10.1	10.3	11.1	9.9	14.8	16.2	13.2
08/10/00	10.2	10.6	10.1	10.4	11.0	10.0	10.3	11.1	9.9	14.1	15.5	12.4
08/11/00	10.3	10.7	10.1	10.5	11.2	10.1	10.4	11.3	9.9	13.8	15.5	12.0
08/12/00	10.4	10.7	10.2	10.5	11.2	10.1	10.5	11.3	10.1	14.1	15.7	12.3
08/13/00	10.4	10.7	10.2	10.6	11.2	10.1	10.5	11.3	9.9	14.3	15.9	12.6
08/14/00	10.4	10.9	10.2	10.6	11.3	10.3	10.6	11.5	10.1	14.2	15.9	12.4
08/15/00	10.5	10.9	10.2	10.7	11.3	10.3	10.6	11.5	10.2	14.7	16.3	13.0
08/16/00	10.5	10.9	10.4	10.7	11.5	10.4	10.7	11.6	10.2	14.9	16.5	13.3
08/17/00	10.6	10.9	10.4	10.7	11.3	10.4	10.7	11.5	10.2	14.9	16.3	13.3
08/18/00	10.5	10.9	10.4	10.7	11.3	10.3	10.6	11.5	10.2	14.1	15.4	12.4
08/19/00	10.6	11.0	10.4	10.7	11.3	10.4	10.6	11.5	10.2	13.4	14.9	11.6
08/20/00	10.7	11.0	10.4	10.8	11.5	10.4	10.7	11.6	10.2	13.2	14.7	11.5
08/21/00	10.7	11.2	10.6	10.8	11.7	10.4	10.8	11.8	10.2	13.3	14.9	11.5
08/22/00	10.7	11.2	10.6	10.9	11.7	10.4	10.8	11.8	10.2	13.5	15.1	11.8
08/23/00	10.8	11.2	10.6	10.9	11.7	10.6	10.9	11.9	10.4	13.8	15.4	12.3
08/24/00	10.9	11.3	10.6	11.0	11.8	10.6	10.9	11.9	10.4	14.0	15.5	12.3
08/25/00	10.9	11.3	10.9	11.0	11.5	10.9	11.0	11.6	10.7	14.3	14.7	13.8
08/26/00	11.0	11.3	10.9	11.1	11.7	10.9	11.1	11.9	10.7	14.3	16.2	12.7
08/27/00	11.0	11.3	10.9	11.2	11.8	10.9	11.1	12.1	10.7	14.3	15.5	13.0
08/28/00	11.0	11.3	10.9	11.1	11.7	10.9	11.1	11.8	10.8	14.2	14.7	13.3
08/29/00	11.1	11.3	11.0	11.2	11.5	11.0	11.1	11.5	11.0	13.6	14.1	13.2
08/30/00	11.1	11.5	10.9	11.2	11.8	10.1	11.2	11.9	10.7	13.3	14.3	12.7
08/31/00	11.0	11.8	10.7				11.3	12.4	10.5	13.3	14.6	12.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	10.7	11.0	10.6	10.8	11.0	10.6	10.6	10.8	10.4	12.1	13.5	10.9
09/02/00	10.9	11.8	10.6	11.0	12.1	10.4	10.8	11.8	10.2	11.3	12.7	9.9
09/03/00	10.9	12.1	10.4	11.3	13.1	10.3	11.0	12.7	10.1	12.3	13.7	10.7
09/04/00	10.9	12.1	10.4	11.3	12.9	10.3	10.9	12.5	10.1	11.9	13.3	10.3
09/05/00	10.9	12.1	10.1	10.8	12.4	10.1	10.7	12.8	9.9	11.4	12.6	9.8
09/06/00	11.1	11.5	10.9	11.2	12.0	10.7	11.0	12.1	10.4	11.1	12.6	9.3
09/07/00	11.1	11.6	10.9	11.2	12.1	10.7	11.1	12.2	10.5	11.5	13.0	9.8
09/08/00	11.2	11.6	11.0	11.3	12.1	10.9	11.2	12.2	10.7	12.1	13.5	10.6
09/09/00	11.2	11.8	10.9	11.3	12.1	10.9	11.2	12.4	10.5	12.0	13.3	10.4
09/10/00	11.3	11.8	11.0	11.4	12.3	10.9	11.3	12.4	10.7	12.2	13.7	10.6
09/11/00	11.4	11.8	11.2	11.4	12.3	11.0	11.3	12.4	10.8	12.5	13.8	10.9
09/12/00	11.4	11.8	11.2	11.5	12.3	11.0	11.3	12.4	10.8	12.4	13.3	11.0
09/13/00	11.1	11.8	9.9				11.2	12.4	9.9	13.1	14.7	11.5
09/14/00	11.5	11.9	11.3	11.7	12.4	11.3	11.6	12.5	11.1	13.6	14.9	12.1
09/15/00	11.5	11.9	11.3	11.6	12.4	11.2	11.5	12.5	11.0	13.4	14.4	12.0
09/16/00	11.5	12.1	11.3	11.7	12.4	11.2	11.5	12.5	11.0	12.8	14.0	11.3
09/17/00	11.7	12.1	11.5	11.8	12.6	11.3	11.7	12.7	11.1	13.0	14.4	11.5
09/18/00	11.8	12.1	11.6	11.9	12.4	11.5	11.8	12.5	11.5	13.3	14.6	11.8
09/19/00	11.8	12.1	11.6	12.0	12.6	11.7	11.9	12.7	11.5	13.4	14.6	12.0
09/20/00	11.9	12.4	11.6				11.9	13.0	11.5	13.7	14.9	12.3
09/21/00	12.0	12.6	11.6				12.0	13.0	11.5	13.5	14.4	12.4
09/22/00	11.8	12.9	10.7				12.0	13.3	11.5	12.6	13.3	12.0
09/23/00	11.1	13.8	9.8	11.4	12.3	10.6	10.6	11.5	9.7	11.3	12.4	9.9
09/24/00	11.1	13.9	9.6	11.6	12.4	10.7	10.8	11.6	10.1	10.8	12.0	9.0
09/25/00	11.2	13.9	9.9	11.9	12.7	11.0	11.1	11.8	10.4	11.1	12.4	9.3
09/26/00	11.2	13.9	10.1	12.0	12.7	11.2	11.2	11.9	10.5	11.3	12.4	9.8
09/27/00	11.3	13.9	10.1	12.1	12.9	11.2	11.2	11.9	10.5	11.4	12.6	9.8
09/28/00	11.3	13.9	10.1	12.2	13.1	11.3	11.3	12.1	10.7	11.6	12.7	9.9
09/29/00	11.3	13.9	10.2	12.6	14.0	11.7	11.5	12.1	10.8	11.7	12.7	10.1
09/30/00	11.4	14.1	10.2	12.3	13.1	11.3	11.3	12.1	10.7	11.6	12.7	9.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	11.3	13.9	10.2	12.3	13.1	11.5	11.4	12.1	10.8	11.7	12.9	10.3
10/02/00	11.2	14.1	10.1	12.2	12.9	11.2	11.2	11.9	10.5	11.3	12.3	9.6
10/03/00	11.2	13.9	9.9	12.1	12.7	11.2	11.2	11.8	10.5	11.2	12.3	9.6
10/04/00	11.2	13.9	10.1	12.0	12.7	11.2	11.1	11.8	10.5	11.1	12.1	9.6
10/05/00	11.2	13.9	10.1	12.0	12.7	11.2	11.1	11.8	10.5	11.1	12.1	9.6
10/06/00	11.2	13.9	10.1	12.0	12.6	11.2	11.1	11.8	10.5	11.0	12.1	9.5
10/07/00	11.2	13.8	10.1	12.0	12.6	11.2	11.2	11.8	10.5	11.1	12.1	9.6
10/08/00	11.2	13.8	10.1	12.0	12.6	11.2	11.1	11.8	10.5	11.0	12.0	9.6
10/09/00	10.7	12.4	9.6	11.7	12.3	11.0	10.8	11.6	10.4	10.5	11.3	9.2
10/10/00	9.6	11.2	7.8	10.2	11.5	9.5	9.3	10.8	8.5	8.1	10.4	7.3
10/11/00	10.2	12.1	9.3	9.4	10.0	8.9	9.0	9.4	8.8	7.3	7.9	6.4
10/12/00	10.6	12.4	9.9	9.8	10.3	9.3	9.4	9.7	9.1	7.9	8.9	6.9
10/13/00	10.5	13.0	9.5	10.1	10.7	9.5	9.6	9.9	9.1	8.1	9.0	6.7
10/14/00	10.6	13.2	9.6	10.4	11.0	9.8	9.9	10.2	9.4	8.5	9.3	7.3
10/15/00	10.7	13.2	9.8	10.6	11.2	10.0	10.0	10.4	9.6	8.7	9.6	7.5
10/16/00	10.8	13.3	9.8	10.8	11.3	10.1	10.2	10.5	9.7	9.0	9.9	7.6
10/17/00	11.0	13.5	9.9	10.9	11.5	10.3	10.3	10.7	9.7	9.2	9.9	7.9
10/18/00	11.0	12.9	10.1	11.1	11.7	10.6	10.5	10.8	10.2	9.2	9.9	8.2
10/19/00	11.2	13.6	10.2	11.0	11.7	10.4	10.5	10.8	10.1	9.2	10.1	7.9
10/20/00	11.3	13.3	10.4	11.3	12.0	10.6	10.7	11.3	10.2	9.5	10.4	8.2
10/21/00	10.8	12.4	9.9	11.0	11.5	10.6	10.5	11.1	10.2	9.0	10.1	8.2
10/22/00	10.3	11.9	9.6	9.7	10.6	8.7	9.2	10.2	8.5	7.7	8.4	6.9
10/23/00	10.7	12.3	9.8	10.0	11.3	9.2	9.5	10.4	8.8	7.7	9.0	6.2
10/24/00	10.2	12.4	9.2	10.7	11.5	9.8	9.7	10.5	9.1	8.4	9.3	7.3
10/25/00	10.1	11.8	9.2	10.8	11.2	10.1	9.8	10.7	9.1	8.8	9.6	7.6
10/26/00	10.0	10.6	9.0	10.1	10.9	9.8	9.6	10.1	9.1	8.4	9.2	7.8
10/27/00	9.8	11.6	8.7	9.6	10.4	9.0	8.9	9.6	8.7	7.7	8.6	6.9
10/28/00	9.7	10.9	9.0	9.7	10.1	9.0	9.0	9.6	8.7	7.7	8.2	6.7
10/29/00	9.2	9.5	8.7	9.0	9.8	8.4	8.7	9.6	8.1	7.5	8.2	6.9
10/30/00	9.1	10.2	8.4	8.5	9.3	7.9	8.0	8.5	7.6	6.5	7.0	5.8
10/31/00	8.9	10.4	8.4	8.8	9.6	7.9	8.2	8.5	7.7	6.3	6.9	5.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01												
05/19/01												
05/20/01												
05/21/01												
05/22/01												
05/23/01												
05/24/01												
05/25/01												
05/26/01												
05/27/01												
05/28/01												
05/29/01												
05/30/01												
05/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01												
06/02/01												
06/03/01												
06/04/01												
06/05/01												
06/06/01												
06/07/01												
06/08/01	8.6	12.9	5.6	8.7	12.9	5.6	8.6	12.7	5.4	9.2	12.1	6.3
06/09/01	8.6	13.0	5.3	8.6	13.0	5.3	8.5	12.9	5.1	9.1	12.1	6.3
06/10/01	9.0	13.0	6.4	9.0	13.0	6.4	8.9	13.0	6.2	9.4	12.3	7.0
06/11/01	8.2	12.1	5.3	8.2	12.1	5.3	8.1	11.9	5.1	8.7	11.4	6.1
06/12/01	8.3	12.1	5.6	8.4	12.1	5.6	8.3	12.1	5.4	8.8	11.4	6.3
06/13/01	7.2	11.0	3.9	7.2	11.0	3.9	7.1	11.0	3.7	7.7	10.3	4.9
06/14/01	8.0	12.4	4.8	8.0	12.4	4.8	7.9	12.4	4.7	8.4	11.5	5.6
06/15/01	8.8	13.3	5.6	8.9	13.3	5.6	8.8	13.2	5.4	9.3	12.5	6.6
06/16/01	9.1	13.2	5.7	9.2	13.0	5.7	9.1	13.0	5.6	9.6	12.3	6.9
06/17/01	9.3	13.2	6.2	9.3	13.2	6.2	9.2	13.0	6.2	9.8	12.3	7.2
06/18/01	9.1	13.3	5.6	9.1	13.3	5.6	9.0	13.3	5.4	9.6	12.5	6.7
06/19/01	9.3	13.5	5.7	9.4	13.5	5.9	9.3	13.5	5.8	9.8	12.6	6.9
06/20/01	10.1	14.4	7.0	10.2	14.4	7.0	10.1	14.3	6.8	10.5	13.4	7.8
06/21/01	10.5	14.5	7.3	10.6	14.6	7.3	10.5	14.6	7.1	11.0	13.8	8.1
06/22/01	11.1	14.4	8.4	11.2	14.3	8.4	11.1	14.3	8.4	11.6	13.8	9.2
06/23/01	11.1	15.2	8.4	11.2	15.2	8.4	11.1	15.0	8.4	11.6	14.2	9.2
06/24/01	9.9	13.3	7.9	10.1	13.3	7.9	9.9	13.3	7.8	10.5	12.5	8.7
06/25/01	8.9	13.2	5.7	9.0	13.2	5.7	8.9	13.0	5.6	9.3	12.1	6.7
06/26/01	9.2	12.1	7.4	9.2	11.8	7.5	9.1	11.8	7.3	9.6	11.4	8.1
06/27/01	9.8	13.3	8.1	9.9	13.3	8.1	9.8	13.3	7.9	10.2	12.5	8.6
06/28/01	10.0	14.5	6.5	10.0	14.6	6.5	9.9	14.6	6.4	10.2	13.5	7.2
06/29/01	10.4	14.9	6.8	10.5	14.7	7.0	10.4	14.7	6.8	10.8	13.8	7.8
06/30/01	10.9	14.7	7.7	11.0	14.7	7.8	10.9	14.7	7.8	11.3	14.0	8.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	11.0	14.9	8.1	11.1	14.7	8.1	11.0	14.6	8.1	11.5	14.0	8.9
07/02/01	12.0	16.4	9.3	12.1	16.2	9.3	12.0	16.0	9.3	12.4	15.1	10.0
07/03/01	11.7	13.5	10.2	11.8	13.2	10.2	11.7	13.2	10.1	12.2	13.2	10.8
07/04/01	12.3	15.0	10.7	12.3	14.7	10.7	12.3	14.7	10.7	12.7	14.0	11.4
07/05/01	12.5	15.5	10.4	12.5	15.2	10.4	12.4	15.0	10.4	12.9	14.8	11.1
07/06/01	11.3	11.9	10.5	11.4	11.9	10.6	11.3	11.9	10.5	12.0	12.8	11.2
07/07/01	10.8	11.6	10.2	10.9	11.6	10.2	10.8	11.5	10.1	11.4	12.0	10.9
07/08/01	10.2	11.8	8.7	10.2	11.6	8.7	10.2	11.6	8.7	10.9	12.0	9.8
07/09/01	9.2	11.1	7.6	9.2	10.7	7.6	9.2	10.7	7.5	9.8	11.1	8.3
07/10/01	9.9	12.7	7.6	9.9	12.4	7.6	9.8	12.4	7.6	10.3	12.3	8.3
07/11/01	10.5	14.2	7.7	10.5	14.3	7.8	10.4	14.1	7.8	10.9	13.4	8.7
07/12/01	10.4	14.5	7.6	10.5	14.6	7.6	10.4	14.6	7.6	10.8	13.5	8.4
07/13/01	9.9	13.3	7.0	9.9	13.3	7.1	9.9	13.2	7.0	10.3	12.8	8.0
07/14/01	10.2	14.2	7.3	10.3	14.1	7.3	10.2	14.1	7.3	10.6	13.1	8.1
07/15/01	9.4	13.5	6.0	9.4	13.5	6.1	9.4	13.5	5.9	9.8	12.6	6.9
07/16/01	9.3	13.3	6.2	9.4	13.3	6.2	9.3	13.3	6.1	9.6	12.3	7.0
07/17/01	9.6	13.8	6.4	9.6	13.6	6.4	9.6	13.5	6.2	9.8	12.8	7.2
07/18/01	9.8	13.3	7.0	9.9	13.3	7.1	9.8	13.2	7.0	10.2	12.5	8.0
07/19/01	9.8	14.1	6.5	9.9	14.0	6.7	9.8	13.8	6.5	10.1	12.9	7.5
07/20/01	9.9	14.1	6.5	9.9	14.1	6.7	9.9	13.9	6.5	10.2	13.1	7.5
07/21/01	9.9	14.2	6.7	9.9	14.3	6.7	9.8	14.1	6.5	10.2	13.1	7.5
07/22/01	10.1	14.2	6.7	10.1	14.3	6.8	10.0	14.1	6.7	10.3	13.2	7.7
07/23/01	10.4	14.7	7.4	10.5	14.6	7.5	10.4	14.6	7.5	10.7	13.5	8.1
07/24/01	10.5	14.2	7.4	10.5	14.1	7.5	10.5	14.1	7.3	10.8	13.4	8.3
07/25/01	10.7	14.5	7.4	10.8	14.4	7.5	10.7	14.4	7.3	11.1	13.5	8.3
07/26/01	11.8	15.7	9.0	11.8	15.4	9.2	11.8	15.5	9.0	12.2	14.5	10.0
07/27/01	11.2	15.2	8.1	11.3	15.0	8.2	11.2	14.9	8.1	11.7	14.0	9.2
07/28/01	10.8	14.7	7.7	10.9	14.6	7.8	10.8	14.6	7.8	11.2	13.5	8.7
07/29/01	10.8	15.0	7.7	10.8	14.9	7.8	10.7	14.9	7.8	11.1	13.7	8.7
07/30/01	10.0	14.1	6.7	10.0	14.0	6.7	9.9	13.8	6.5	10.3	12.8	7.7
07/31/01	10.7	15.0	7.4	10.7	14.9	7.6	10.6	14.9	7.5	10.9	13.7	8.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	11.5	15.8	8.4	11.5	15.7	8.4	11.4	15.7	8.4	11.6	14.5	9.0
08/02/01	12.2	16.1	9.4	12.2	16.0	9.5	12.1	15.8	9.3	12.3	14.8	10.1
08/03/01	12.0	16.0	9.4	12.1	15.8	9.6	12.0	15.8	9.5	12.3	14.5	10.3
08/04/01	10.3	13.9	7.1	10.4	13.8	7.3	10.3	13.8	7.1	10.7	12.6	8.3
08/05/01	10.5	14.9	7.3	10.6	14.7	7.3	10.5	14.6	7.1	10.8	13.5	8.3
08/06/01	10.7	14.1	8.1	10.7	14.0	8.1	10.6	13.8	7.9	11.1	13.2	8.7
08/07/01	11.5	13.9	9.4	11.6	14.0	9.5	11.5	13.9	9.3	12.0	13.5	10.1
08/08/01	12.5	16.6	10.1	12.5	16.3	10.1	12.5	16.3	9.9	12.8	15.1	10.8
08/09/01	12.2	15.7	9.7	12.2	15.5	9.8	12.1	15.5	9.6	12.5	14.5	10.6
08/10/01	12.4	16.0	9.9	12.4	15.8	9.9	12.3	15.8	9.9	12.6	14.8	10.6
08/11/01	11.8	15.8	9.0	11.9	15.7	9.2	11.8	15.5	9.0	12.1	14.3	9.8
08/12/01	11.7	15.7	9.0	11.7	15.5	9.0	11.7	15.4	8.8	12.0	14.2	9.7
08/13/01	11.6	15.3	8.8	11.6	15.2	9.0	11.5	15.0	8.8	11.8	14.0	9.7
08/14/01	11.6	15.7	8.8	11.6	15.4	8.8	11.5	15.4	8.7	11.9	14.2	9.7
08/15/01	11.7	15.5	9.1	11.7	15.4	9.2	11.6	15.2	9.0	11.9	14.0	9.8
08/16/01	11.8	15.8	9.1	11.9	15.5	9.2	11.8	15.5	9.2	12.1	14.2	10.0
08/17/01	11.4	15.3	8.7	11.5	15.2	8.8	11.4	15.0	8.7	11.8	14.0	9.7
08/18/01	11.6	15.5	8.8	11.7	15.4	9.0	11.6	15.2	8.8	12.0	14.0	9.8
08/19/01	11.7	15.5	9.1	11.7	15.4	9.2	11.6	15.4	9.0	12.0	14.0	10.0
08/20/01	11.1	14.7	8.8	11.1	14.6	8.8	11.0	14.4	8.7	11.4	13.1	9.5
08/21/01	9.7	13.3	7.0	9.8	13.2	7.1	9.6	13.0	7.0	10.1	11.8	8.1
08/22/01	9.5	12.5	7.3	9.6	12.6	7.3	9.5	12.4	7.1	9.8	11.7	8.0
08/23/01	9.2	13.0	6.2	9.2	12.9	6.2	9.1	12.9	6.1	9.5	11.8	7.2
08/24/01	9.6	13.5	6.4	9.6	13.3	6.5	9.5	13.3	6.4	9.9	12.3	7.4
08/25/01	10.5	14.4	7.6	10.5	14.3	7.6	10.4	14.3	7.5	10.8	13.1	8.4
08/26/01	11.2	15.0	8.5	11.3	14.9	8.7	11.2	14.7	8.5	11.5	13.5	9.4
08/27/01	11.7	15.5	9.1	11.7	15.4	9.2	11.6	15.4	9.0	11.9	14.0	10.0
08/28/01	11.6	15.3	9.1	11.7	15.2	9.2	11.6	15.2	9.0	11.9	13.7	9.8
08/29/01	11.2	14.9	8.4	11.2	14.7	8.4	11.1	14.7	8.2	11.5	13.4	9.4
08/30/01	11.1	14.9	8.7	11.2	14.7	8.7	11.1	14.7	8.7	11.5	13.4	9.7
08/31/01	10.7	14.4	8.4	10.8	14.3	8.4	10.7	14.1	8.4	11.0	12.8	9.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	10.5	14.1	7.9	10.5	14.0	8.1	10.4	13.9	7.9	10.7	12.6	8.7
09/02/01	10.2	13.2	8.1	10.3	12.9	8.1	10.2	12.9	7.9	10.6	12.1	8.7
09/03/01	9.8	11.6	8.7	9.8	11.5	8.7	9.7	11.3	8.7	10.5	11.4	9.7
09/04/01	9.9	13.3	7.6	10.0	13.2	7.6	9.9	13.0	7.5	10.3	12.5	8.4
09/05/01	10.0	13.0	8.2	10.0	13.0	8.2	9.9	12.9	8.1	10.5	11.8	9.0
09/06/01	8.7	12.4	5.9	8.7	12.3	5.9	8.6	12.1	5.8	9.1	11.1	6.9
09/07/01	9.4	13.2	7.0	9.4	13.0	7.0	9.3	12.9	6.8	9.7	11.7	7.8
09/08/01	9.1	12.9	6.4	9.1	12.7	6.4	9.0	12.6	6.4	9.5	11.5	7.4
09/09/01	9.0	12.5	6.7	9.0	12.4	6.7	8.9	12.2	6.7	9.4	11.1	7.5
09/10/01	9.2	12.9	7.1	9.2	12.6	7.1	9.1	12.4	7.0	9.5	11.4	7.7
09/11/01	9.4	11.6	8.2	9.4	11.5	8.2	9.3	11.5	8.1	9.9	11.1	9.0
09/12/01	8.5	11.5	6.5	8.5	11.3	6.5	8.4	11.2	6.5	8.9	10.1	7.4
09/13/01	7.6	11.1	5.0	7.7	11.0	5.0	7.6	10.9	4.8	8.1	10.0	6.0
09/14/01	7.8	11.3	5.1	7.8	11.2	5.1	7.7	11.2	5.0	8.2	10.3	6.1
09/15/01	7.8	11.3	5.1	7.8	11.2	5.3	7.7	11.0	5.1	8.2	10.1	6.3
09/16/01	7.7	11.1	5.3	7.7	11.0	5.4	7.6	10.9	5.3	8.2	10.0	6.3
09/17/01	8.0	11.3	5.7	8.0	11.2	5.7	7.9	11.2	5.6	8.4	10.1	6.7
09/18/01	8.4	11.8	6.4	8.5	11.6	6.4	8.3	11.6	6.2	8.8	10.8	7.0
09/19/01	8.7	11.6	6.7	8.7	11.5	6.7	8.6	11.3	6.5	9.1	10.8	7.5
09/20/01	8.9	12.1	6.8	8.9	11.8	7.0	8.8	11.8	6.8	9.3	10.9	7.8
09/21/01	8.8	12.1	6.8	8.8	11.8	6.8	8.7	11.8	6.7	9.2	10.9	7.5
09/22/01	8.4	11.6	6.4	8.5	11.5	6.5	8.4	11.3	6.4	9.0	10.6	7.4
09/23/01	8.1	10.5	6.5	8.1	10.4	6.7	8.0	10.2	6.5	8.7	10.0	7.5
09/24/01	8.1	11.6	5.9	8.1	11.5	5.9	8.0	11.3	5.8	8.5	10.3	6.7
09/25/01	9.1	11.6	7.6	9.1	11.6	7.6	9.0	11.5	7.5	9.6	10.6	8.7
09/26/01	7.9	11.0	5.9	8.0	11.0	6.1	7.8	10.9	5.9	8.4	10.1	6.6
09/27/01	8.0	11.0	6.5	8.0	10.9	6.5	7.9	10.7	6.4	8.5	9.8	7.0
09/28/01	7.3	10.2	5.3	7.3	10.1	5.3	7.2	10.1	5.1	7.8	9.4	6.0
09/29/01	7.5	10.5	5.4	7.5	10.4	5.4	7.4	10.2	5.3	8.0	9.7	6.4
09/30/01	7.6	10.4	5.7	7.6	10.2	5.7	7.5	10.1	5.6	8.2	9.8	6.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Hooper Creek upstream of Diversion			Hooper Creek Diversion			Hooper Creek downstream of Diversion			Hooper Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	7.6	10.7	6.2	7.6	10.6	6.2	7.5	10.4	6.1	8.3	9.7	7.0
10/02/01	7.9	11.0	5.9	7.9	10.9	5.9	7.8	10.7	5.9	8.4	10.1	6.9
10/03/01	8.0	10.5	6.2	8.0	10.6	6.2	7.9	10.4	6.1	8.7	10.1	7.0
10/04/01	8.1	10.5	6.5	8.1	10.6	6.5	8.0	10.4	6.5	8.7	10.0	7.4
10/05/01	7.8	10.2	6.2	7.8	10.2	6.2	7.7	10.1	6.1	8.4	9.7	7.2
10/06/01	6.9	9.3	5.4	6.9	9.2	5.4	6.8	9.0	5.3	7.5	8.7	6.1
10/07/01	6.1	8.5	4.3	6.2	8.5	4.3	6.0	8.4	4.2	6.8	8.1	5.3
10/08/01	6.6	9.3	5.3	6.6	9.0	5.3	6.5	8.8	5.1	7.1	8.3	6.0
10/09/01	5.2	7.0	3.1	5.2	7.0	3.1	5.0	6.8	2.9	6.0	7.4	4.4
10/10/01	4.7	7.3	2.4	4.7	7.1	2.6	4.6	7.1	2.5	5.4	6.9	3.6
10/11/01	5.4	7.7	3.5	5.4	7.8	3.7	5.3	7.6	3.4	6.0	7.7	4.6
10/12/01	5.6	8.5	3.5	5.6	8.4	3.6	5.4	8.2	3.4	6.2	8.1	4.4
10/13/01	5.1	7.7	3.2	5.1	7.6	3.2	5.0	7.6	3.1	6.0	7.5	4.2
10/14/01	5.0	7.9	3.1	5.0	7.8	3.1	4.9	7.6	2.9	5.7	7.5	4.1
10/15/01	5.5	7.9	4.0	5.5	7.8	4.0	5.4	7.8	3.9	6.3	7.8	4.9
10/16/01	5.4	7.6	3.9	5.4	7.6	3.9	5.3	7.5	3.7	6.2	7.7	4.9
10/17/01	5.2	7.1	3.5	5.2	7.1	3.6	5.0	7.0	3.4	5.9	7.0	4.6
10/18/01	5.0	7.3	3.5	5.1	7.3	3.6	4.9	7.1	3.4	5.8	7.2	4.2
10/19/01	5.2	7.4	3.5	5.2	7.5	3.7	5.0	7.3	3.4	5.9	7.2	4.6
10/20/01	4.9	6.8	3.2	4.9	6.7	3.4	4.8	6.7	3.1	5.8	7.0	4.4
10/21/01	5.0	7.3	3.5	5.0	7.3	3.6	4.9	7.1	3.4	5.6	6.9	4.6
10/22/01	4.2	6.2	2.8	4.2	6.1	2.8	4.1	5.9	2.6	4.9	6.3	3.6
10/23/01												
10/24/01												
10/25/01												
10/26/01												
10/27/01												
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Bear Creek Upstream of Bear Diversion			Bear Creek Diversion			Bear Creek Downstream of Bear Diversion			Bear Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01										8.7	10.2	6.8
05/02/01										8.7	10.4	7.4
05/03/01										7.1	8.8	5.3
05/04/01										7.3	9.1	5.3
05/05/01										8.6	10.5	6.7
05/06/01										9.8	11.8	7.9
05/07/01										10.6	12.3	8.8
05/08/01										10.7	12.7	7.8
05/09/01										8.5	11.0	6.0
05/10/01										8.8	11.3	6.4
05/11/01										9.0	11.6	7.0
05/12/01										7.1	8.1	5.7
05/13/01										7.9	8.7	6.8
05/14/01										8.8	10.9	6.5
05/15/01										10.5	12.1	8.8
05/16/01										10.1	12.6	8.1
05/17/01										8.4	10.5	5.9
05/18/01										9.3	11.3	7.1
05/19/01										10.6	12.4	8.7
05/20/01										11.5	13.3	9.3
05/21/01										12.4	14.1	10.4
05/22/01										11.7	13.3	9.8
05/23/01										10.3	11.6	8.5
05/24/01										11.5	12.9	9.9
05/25/01										12.4	14.3	10.5
05/26/01										10.9	12.9	8.4
05/27/01										12.0	13.6	10.2
05/28/01										12.2	14.0	10.5
05/29/01										12.7	14.6	10.9
05/30/01										13.4	15.2	11.5
05/31/01										14.3	16.2	12.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Bear Creek Upstream of Bear Diversion			Bear Creek Diversion			Bear Creek Downstream of Bear Diversion			Bear Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01										14.4	16.2	12.9
06/02/01										13.7	15.4	12.4
06/03/01										12.3	14.0	10.7
06/04/01										12.3	14.1	10.5
06/05/01										12.7	14.6	11.0
06/06/01										13.5	15.4	11.6
06/07/01										14.3	16.2	12.7
06/08/01										14.2	16.0	12.4
06/09/01										14.2	16.0	12.4
06/10/01										14.4	16.2	12.7
06/11/01	10.6	12.4	8.1	11.1	12.8	8.9				13.9	15.6	12.3
06/12/01	10.6	12.6	8.1	11.0	12.5	9.1	11.3	12.6	10.0	13.7	15.4	12.1
06/13/01	9.9	11.5	7.6	10.4	11.8	8.6	11.2	12.1	9.8	13.3	14.9	11.7
06/14/01	10.4	12.4	7.8	10.7	12.3	8.6	10.8	12.0	9.5	13.4	15.2	11.5
06/15/01	11.7	13.8	9.3	12.0	13.7	10.3	10.8	12.0	9.4	13.9	15.9	12.1
06/16/01	12.3	14.1	9.9	12.8	14.2	10.9	12.1	13.2	10.6	14.5	16.4	12.8
06/17/01	12.5	13.9	10.4	13.0	14.0	11.4	12.8	14.0	11.5	14.9	16.5	13.4
06/18/01	12.2	13.8	9.8	12.7	13.8	10.9	13.2	14.0	12.0	14.9	16.7	13.1
06/19/01	12.6	14.4	10.2	13.0	14.3	11.1	12.9	13.7	11.7	15.0	16.8	13.2
06/20/01	13.3	15.2	11.0	13.7	15.1	12.0	13.1	14.2	11.8	15.5	17.3	13.7
06/21/01	13.8	15.5	11.5	14.2	15.6	12.5	13.7	14.8	12.5	15.9	17.8	14.1
06/22/01	14.6	16.6	12.4	15.0	16.7	13.2	14.4	15.4	13.1	16.6	18.4	14.9
06/23/01	14.5	16.3	12.6	15.1	16.4	13.5	15.0	16.1	13.7	16.7	18.4	15.2
06/24/01	13.2	14.7	11.5	14.0	15.3	12.5	15.2	16.1	14.0	16.0	17.5	14.8
06/25/01	12.3	14.3	9.9	12.9	14.2	11.1	14.2	15.3	13.2	15.0	16.8	13.2
06/26/01	12.8	14.1	11.2	13.1	14.0	12.0	13.1	14.0	11.7	14.5	15.1	13.8
06/27/01	12.8	15.2	10.9	13.4	15.1	11.8	13.2	13.8	12.5	14.7	16.5	13.2
06/28/01	13.2	15.8	10.4	13.9	15.9	11.8	13.3	14.2	12.3	15.2	17.2	13.4
06/29/01	14.1	16.8	11.6	14.8	16.8	12.9	13.4	14.5	12.1	15.8	17.6	14.0
06/30/01	14.9	17.7	12.6	15.7	17.8	13.8	14.3	15.3	13.1	16.4	18.3	14.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Bear Creek Upstream of Bear Diversion			Bear Creek Diversion			Bear Creek Downstream of Bear Diversion			Bear Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	14.8	16.6	12.9	15.7	17.0	14.3	15.0	16.1	13.8	16.4	17.5	15.1
07/02/01	15.1	18.1	13.0	15.9	17.5	14.3	15.3	15.9	14.3	16.8	18.6	15.2
07/03/01	14.5	15.7	13.5	15.3	16.0	14.6	15.3	16.1	14.3	16.3	17.0	15.6
07/04/01	14.7	16.5	13.5	15.1	16.2	14.2	15.2	15.9	14.5	16.4	17.6	15.6
07/05/01	14.7	16.3	13.0	15.2	16.2	13.8	15.0	15.7	14.3	16.3	17.0	15.6
07/06/01	13.6	15.0	12.9	14.3	15.7	13.4	15.2	15.9	14.3	16.0	16.4	15.6
07/07/01	12.6	13.2	11.9	12.9	13.5	12.3	14.4	15.7	13.5	15.3	15.7	14.8
07/08/01	12.5	13.8	11.2	12.8	13.7	11.7	13.1	13.5	12.6	14.8	15.4	14.0
07/09/01	11.5	12.6	10.1	11.9	12.8	10.8	12.9	13.5	12.0	14.0	14.6	13.1
07/10/01	11.9	13.5	10.1	12.1	13.2	10.8	12.0	12.9	11.2	13.6	14.5	12.6
07/11/01	13.2	15.4	11.2	13.5	15.3	11.8	12.1	13.1	11.2	14.5	16.5	12.9
07/12/01	13.7	16.1	11.3	14.3	16.0	12.5	13.5	14.6	12.1	15.2	17.2	13.5
07/13/01	13.3	15.4	11.3	14.1	15.3	12.9	14.0	14.9	12.9	15.1	16.4	13.7
07/14/01	13.5	16.3	11.3	14.4	16.0	12.8	13.9	14.6	12.9	15.3	17.0	13.8
07/15/01	13.0	16.0	10.4	14.2	16.0	12.5	13.8	14.5	12.9	15.0	16.8	13.4
07/16/01	13.0	16.1	10.4	14.2	16.0	12.5	13.4	14.2	12.5	14.9	16.7	13.4
07/17/01	13.4	16.6	10.7	14.6	16.8	12.6	13.3	14.0	12.3	14.8	16.2	13.2
07/18/01	14.0	17.4	11.5	15.3	17.6	13.2	13.5	14.3	12.5	15.2	17.2	13.5
07/19/01	14.0	17.3	11.5	15.5	17.5	13.7	14.1	14.8	13.1	15.2	17.2	13.7
07/20/01	14.0	17.6	11.3	15.5	17.8	13.4	14.3	14.9	13.4	15.3	17.2	13.7
07/21/01	14.0	17.7	11.3	15.7	17.8	13.5	14.2	14.9	13.2	15.4	17.3	13.8
07/22/01	14.2	18.1	11.3	16.0	18.4	13.8	14.3	14.9	13.4	15.4	17.3	13.8
07/23/01	14.6	18.5	11.8	16.4	18.6	14.2	14.4	15.1	13.4	15.7	17.6	14.0
07/24/01	14.7	18.4	11.9	16.5	18.4	14.6	14.7	15.4	13.8	15.8	17.3	14.3
07/25/01	15.0	19.0	11.8	16.9	19.1	14.9	15.1	15.7	14.2	16.2	17.8	14.5
07/26/01	16.0	20.2	13.0	17.8	20.1	15.7	15.2	16.1	14.3	17.1	18.9	15.6
07/27/01	15.9	19.7	13.0	18.1	19.9	16.2	15.9	16.7	15.1	17.0	18.8	15.4
07/28/01	15.4	19.5	12.2	17.9	19.7	15.9	16.4	17.0	15.4	16.7	18.4	15.1
07/29/01	15.2	19.5	12.1	17.8	19.7	15.9	16.1	16.8	15.1	16.6	18.4	14.9
07/30/01	14.6	18.7	11.5	17.3	18.9	15.6	15.8	16.4	14.8	16.1	17.8	14.5
07/31/01	14.9	19.3	11.6	17.4	19.6	15.4	15.4	16.1	14.5	16.2	18.1	14.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Bear Creek Upstream of Bear Diversion			Bear Creek Diversion			Bear Creek Downstream of Bear Diversion			Bear Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	15.6	20.0	12.2	18.0	20.4	15.9	15.2	15.9	14.3	16.5	18.4	14.8
08/02/01	16.4	20.6	13.3	18.8	21.0	17.0	15.6	16.4	14.6	17.1	18.9	15.6
08/03/01	16.5	20.6	13.6	19.1	20.7	17.6	16.4	17.3	15.6	17.3	19.2	15.9
08/04/01	15.2	19.0	12.2	18.3	19.4	17.2	17.0	17.6	16.1	16.6	18.1	15.1
08/05/01	15.0	19.7	11.6	17.8	20.1	16.2	16.5	17.3	15.6	16.2	18.1	14.5
08/06/01	15.2	18.9	12.4	17.8	18.9	16.4	15.6	16.5	14.6	16.2	17.2	14.9
08/07/01	15.7	19.0	13.3	17.9	19.6	16.5	15.8	16.4	14.9	16.8	18.4	15.2
08/08/01	15.9	19.8	13.2	18.2	20.9	16.0	16.1	16.7	15.4	17.3	18.4	16.2
08/09/01	15.4	18.9	12.9	18.4	19.9	17.0	16.2	17.0	15.4	17.2	18.4	16.2
08/10/01	16.0	20.2	12.7	18.4	20.2	16.8	16.3	16.8	15.7	17.1	18.1	16.0
08/11/01	16.2	20.5	13.2	18.7	20.7	17.2	16.4	17.0	15.7	16.9	18.4	15.4
08/12/01	15.7	20.0	12.7	18.7	20.2	17.3	16.6	17.3	15.7	17.0	18.8	15.6
08/13/01	15.5	19.3	12.6	18.4	20.2	17.2	16.7	17.5	15.9	16.8	18.4	15.4
08/14/01	15.5	19.7	12.2	18.7	20.7	17.2	16.6	17.2	15.7	17.0	18.8	15.6
08/15/01	15.2	19.2	12.2	18.5	20.2	17.3	16.5	17.2	15.7	16.8	18.1	15.4
08/16/01	15.6	19.7	12.4	18.6	20.5	17.0	16.5	17.2	15.7	17.0	18.8	15.4
08/17/01	15.4	19.3	12.2	18.6	20.2	17.3	16.5	17.2	15.6	17.0	18.4	15.6
08/18/01	15.5	19.5	12.2	18.6	20.2	17.2	16.6	17.2	15.9	17.1	18.8	15.7
08/19/01	15.2	19.2	12.1	18.5	19.9	17.3	16.6	17.3	15.9	17.1	18.8	15.7
08/20/01	14.6	18.4	11.6	18.3	19.7	17.2	16.6	17.2	15.9	16.6	18.1	15.2
08/21/01	13.9	17.7	11.0	17.7	18.8	16.7	16.4	16.8	15.6	15.9	17.3	14.6
08/22/01	13.4	16.6	10.5	16.8	17.8	15.9	15.8	16.5	15.1	15.0	16.0	14.0
08/23/01	13.4	17.6	9.8	16.5	18.1	14.9	14.9	15.7	14.3	14.8	16.4	13.2
08/24/01	13.8	18.1	9.9	16.7	18.6	15.1	14.2	14.9	13.5	14.9	16.5	13.4
08/25/01	14.7	19.0	11.0	17.3	19.7	15.6	14.2	14.8	13.5	15.4	17.2	13.8
08/26/01	15.6	20.0	12.1	18.1	20.2	16.4	14.7	15.6	14.0	16.0	17.8	14.5
08/27/01	16.1	20.5	12.6	18.8	21.0	17.2	15.4	16.2	14.8	16.5	18.1	15.1
08/28/01	16.2	20.5	12.7	18.9	20.5	17.5	16.1	16.8	15.4	16.6	18.1	15.2
08/29/01	16.0	20.0	12.4	18.8	20.2	17.5	16.4	17.2	15.7	16.7	18.1	15.2
08/30/01	15.7	20.0	12.2	18.4	19.7	17.2	16.6	17.2	15.9	16.5	18.1	15.2
08/31/01	15.2	19.5	11.6	18.1	19.6	16.8	16.3	16.8	15.7	16.1	17.6	14.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Bear Creek Upstream of Bear Diversion			Bear Creek Diversion			Bear Creek Downstream of Bear Diversion			Bear Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	14.9	19.0	11.3	17.8	19.4	16.4	15.9	16.5	15.4	15.7	17.3	14.3
09/02/01	14.6	18.4	11.2	17.4	18.6	16.2	15.6	16.2	14.9	15.4	16.2	14.3
09/03/01	13.8	16.8	11.8	16.6	17.5	15.9	15.3	15.9	14.8	15.0	15.7	14.5
09/04/01	13.9	18.1	10.4	16.4	18.9	14.6	15.1	15.7	14.9	14.8	16.4	13.2
09/05/01	14.5	18.7	11.5	17.0	18.8	15.6	14.2	14.9	13.7	15.3	17.0	14.1
09/06/01	13.4	17.6	9.8	16.5	18.0	15.1	14.4	15.3	14.0	14.4	15.9	12.9
09/07/01	13.6	18.1	9.9	16.3	18.0	14.8	14.2	14.8	13.7	14.4	16.0	12.9
09/08/01	13.4	17.7	9.6	16.2	18.0	14.6	14.0	14.6	13.4	14.2	15.9	12.8
09/09/01	13.3	17.9	9.8	15.8	17.5	14.6	13.9	14.5	13.4	14.1	15.7	12.8
09/10/01	13.2	17.3	9.8	15.6	16.7	14.5	13.8	14.5	13.4	14.0	15.4	12.8
09/11/01	12.8	14.9	11.2	15.3	16.0	14.8	13.8	14.3	13.4	14.1	14.6	13.7
09/12/01	12.0	16.1	9.2	14.5	15.3	13.7	13.9	14.2	13.7	13.4	14.8	12.3
09/13/01	11.6	16.1	7.8	14.6	16.0	13.2	13.3	13.8	12.8	13.0	14.5	11.7
09/14/01	12.0	16.6	8.2	14.7	16.2	13.1	12.7	13.2	12.1	13.0	14.5	11.7
09/15/01	12.0	16.6	8.4	14.7	16.2	13.2	12.6	13.2	12.0	13.0	14.5	11.7
09/16/01	11.8	16.5	8.4	14.6	16.0	13.2	12.6	13.4	12.1	12.8	14.3	11.5
09/17/01	12.0	16.8	8.5	14.7	16.4	13.2	12.6	13.2	12.1	12.9	14.5	11.7
09/18/01	12.3	17.1	8.8	14.9	16.7	13.4	12.7	13.4	12.1	13.1	14.6	11.8
09/19/01	12.7	17.4	9.3	15.3	16.8	13.7	12.8	13.5	12.3	13.3	14.8	12.1
09/20/01	12.9	17.6	9.6	15.4	17.0	14.0	13.1	13.7	12.6	13.5	14.8	12.3
09/21/01	12.8	17.6	9.6	15.6	17.2	14.2	13.3	14.0	12.9	13.5	14.9	12.1
09/22/01	12.4	16.9	9.2	15.3	16.5	14.2	13.5	14.2	13.1	13.4	14.8	12.1
09/23/01	11.7	14.6	9.3	14.5	15.3	14.0	13.5	14.2	13.1	12.9	13.7	12.1
09/24/01	11.3	15.2	8.4	14.1	15.3	13.1	13.2	13.5	12.9	12.6	13.5	11.5
09/25/01	12.3	16.9	10.1	14.1	15.4	13.2	12.7	13.1	12.3	13.2	14.8	12.3
09/26/01	11.5	16.5	8.2	14.4	16.0	13.1	12.8	13.5	12.5	12.8	14.1	11.5
09/27/01	V	V	V	13.8	14.5	12.9	12.6	13.2	12.1	12.4	13.7	11.4
09/28/01	V	V	V	13.7	14.9	12.6	12.4	13.1	12.0	12.0	13.4	10.7
09/29/01	V	V	V	13.8	15.9	12.5	12.1	12.6	11.7	12.0	13.4	10.7
09/30/01	V	V	V	13.7	14.9	12.5	11.9	12.6	11.4	11.9	12.9	10.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Bear Creek Upstream of Bear Diversion			Bear Creek Diversion			Bear Creek Downstream of Bear Diversion			Bear Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	V	V	V	13.4	14.2	12.6	11.8	12.6	11.4	12.0	12.8	11.1
10/02/01	V	V	V	13.3	14.3	12.5	11.9	12.5	11.5	12.0	13.4	10.9
10/03/01	V	V	V	13.7	15.6	12.2	11.9	12.5	11.5	12.3	13.8	11.1
10/04/01	V	V	V	14.0	15.4	12.8	11.9	13.1	11.4	12.6	14.1	11.4
10/05/01	V	V	V	13.8	14.8	12.9	12.0	13.2	11.5	12.4	13.4	11.4
10/06/01	V	V	V	13.5	14.3	12.5	12.1	13.2	11.7	11.8	13.2	10.6
10/07/01	V	V	V	13.0	14.0	12.0	11.9	12.9	11.4	11.2	12.4	10.0
10/08/01	V	V	V	12.2	12.8	11.7	11.3	12.3	10.8	10.9	11.5	10.1
10/09/01	V	V	V	11.7	12.6	10.8	10.8	11.5	10.4	10.4	11.7	9.3
10/10/01	V	V	V	11.1	11.8	10.1	10.3	11.2	9.8	9.8	10.9	8.6
10/11/01	V	V	V	10.5	11.4	9.8	9.6	10.4	9.0	9.6	10.4	8.6
10/12/01							9.1	9.7	8.7	9.6	11.2	8.3
10/13/01							8.8	10.1	8.3	9.5	10.9	8.3
10/14/01							8.7	9.8	8.4			
10/15/01							8.8	10.0	8.3			
10/16/01							8.9	10.1	8.4			
10/17/01							9.0	9.8	8.6			
10/18/01							8.8	9.8	8.4			
10/19/01							8.6	9.2	8.3			
10/20/01							8.6	9.7	8.1			
10/21/01							8.5	9.7	8.1			
10/22/01							8.2	9.2	7.8			
10/23/01							8.0	9.0	7.5			
10/24/01							7.7	8.7	7.3			
10/25/01							7.5	8.4	7.0			
10/26/01							7.3	8.1	6.9			
10/27/01							7.2	7.8	6.9			
10/28/01							6.9	7.8	6.6			
10/29/01							6.7	7.3	6.4			
10/30/01							6.7	7.0	6.3			
10/31/01							5.5	6.3	5.0			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek Upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01												
05/19/01												
05/20/01												
05/21/01										6.4	9.0	4.4
05/22/01										6.7	8.4	5.1
05/23/01										6.7	8.6	5.1
05/24/01										6.9	9.0	5.1
05/25/01										7.1	9.6	5.1
05/26/01										6.8	8.6	5.1
05/27/01										6.6	8.4	4.8
05/28/01										6.7	8.4	5.0
05/29/01										7.4	9.0	5.3
05/30/01										8.1	9.8	6.1
05/31/01										8.8	10.6	7.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek Upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01										8.7	10.3	7.3
06/02/01										7.7	9.0	6.7
06/03/01										6.3	7.8	4.8
06/04/01										6.7	8.3	5.0
06/05/01										7.2	8.7	5.8
06/06/01										8.1	10.0	6.5
06/07/01										8.5	10.3	7.0
06/08/01	9.7	11.8	7.7	10.8	14.1	8.1	13.4	17.5	9.2	8.2	10.1	6.7
06/09/01	9.7	11.8	7.7	10.8	14.1	8.1	13.3	17.0	9.4	8.3	10.3	6.9
06/10/01	10.0	12.1	8.2	11.0	14.1	8.4	13.2	16.7	9.8	8.5	10.4	7.2
06/11/01	9.5	11.3	7.6	10.5	13.5	7.9	12.5	15.6	9.4	8.2	10.1	6.9
06/12/01	9.4	11.3	7.7	10.6	13.3	8.2	12.4	15.3	9.5	8.2	10.0	7.2
06/13/01	8.6	10.2	7.0	9.8	12.2	7.3	12.0	14.9	9.0	7.5	9.3	6.2
06/14/01	8.8	10.8	6.7	10.2	13.2	7.6	12.0	15.3	9.2	7.7	10.0	6.2
06/15/01	9.4	11.4	7.4	11.0	13.9	8.4	12.2	15.4	9.5	8.4	10.7	7.0
06/16/01	9.8	11.8	7.7	11.6	14.2	9.0	12.3	15.3	9.5	8.7	10.9	7.2
06/17/01	9.9	11.6	8.1	11.7	13.9	9.3	12.1	14.9	9.4	9.0	11.0	7.5
06/18/01	9.7	11.4	7.7	11.7	13.9	9.4	11.9	14.9	8.9	8.9	11.2	7.3
06/19/01	9.9	11.6	8.1	11.9	14.1	9.6	11.9	15.1	8.9	9.0	11.2	7.5
06/20/01	10.3	11.9	8.7	12.5	14.6	10.2	12.1	15.1	9.2	9.6	11.8	8.1
06/21/01	10.7	12.2	9.0	13.0	14.7	11.0	12.4	15.4	9.7	10.1	12.1	8.7
06/22/01	11.3	12.7	9.7	13.6	15.3	11.9	12.8	15.6	10.1	10.7	12.9	9.5
06/23/01	11.3	12.7	9.9	13.6	15.3	12.1	12.7	15.4	10.1	10.9	13.1	9.6
06/24/01	10.6	11.8	9.4	13.0	14.6	11.6	12.0	14.3	9.5	10.3	12.1	9.3
06/25/01	9.7	11.0	8.1	12.2	14.1	10.5	11.2	13.8	8.4	9.5	11.8	8.3
06/26/01	9.7	10.5	9.0	12.1	13.0	11.2	10.5	12.1	9.5	9.3	10.0	8.7
06/27/01	9.9	11.4	8.8	12.4	14.2	11.2	10.6	12.8	9.0	9.6	11.7	8.7
06/28/01	9.9	11.6	8.4	12.5	14.9	10.5	10.6	12.8	8.6	9.8	12.0	8.4
06/29/01	10.2	11.9	8.4	13.0	15.3	11.2	10.9	12.9	9.0	10.2	12.3	8.7
06/30/01	10.6	12.4	8.8	13.6	16.1	11.6	11.1	13.1	9.2	10.5	12.8	9.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek Upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	10.7	12.2	9.3	13.8	16.6	12.1	11.0	12.5	9.5	10.8	12.9	9.6
07/02/01	11.3	13.5	9.7	14.3	17.4	12.7	11.4	12.9	9.8	11.4	13.7	10.3
07/03/01	11.3	13.0	10.5	14.3	16.3	13.3	10.8	11.5	10.0	11.6	12.3	10.9
07/04/01	11.6	12.8	10.8	14.4	16.1	13.8	11.0	11.8	10.3	12.0	13.5	11.4
07/05/01	11.6	12.8	10.7	14.6	16.0	13.3	10.9	12.1	10.0	12.0	13.5	11.2
07/06/01	11.2	11.6	10.8	14.2	14.6	13.6	10.6	11.4	10.3	11.8	12.0	11.4
07/07/01	10.9	11.3	10.5	13.4	14.1	12.9	10.5	11.1	10.0	11.3	11.5	10.9
07/08/01	10.5	11.4	9.7	13.1	14.1	11.9	10.4	11.1	9.5	11.0	12.0	10.3
07/09/01	9.7	10.7	9.0	12.4	13.6	11.2	9.9	10.6	9.0	10.3	11.0	9.6
07/10/01	9.5	10.5	8.4	12.5	13.9	11.2	10.1	11.1	9.0	10.1	11.0	9.3
07/11/01	10.2	11.6	9.0	13.1	15.2	11.8	11.3	14.3	9.2	10.5	12.4	9.5
07/12/01	10.2	12.1	8.8	13.3	16.0	11.6	11.9	14.3	9.4	10.5	12.6	9.3
07/13/01	9.8	11.3	8.4	13.1	15.3	11.5	11.4	13.2	9.4	10.1	11.7	9.0
07/14/01	9.5	11.3	8.2	13.1	15.3	11.6	11.6	13.8	9.4	10.2	12.6	9.0
07/15/01	9.1	11.3	7.3	12.9	16.3	11.0	11.3	13.4	8.9	9.8	12.3	8.4
07/16/01	8.8	10.7	7.1	12.7	16.0	10.8	11.2	13.4	8.9	9.6	12.0	8.4
07/17/01	8.5	9.9	7.3	12.4	15.0	10.8	11.1	12.8	9.0	9.5	11.2	8.4
07/18/01	8.7	10.8	7.1	12.5	14.9	11.0	11.1	12.8	9.2	9.8	12.3	8.6
07/19/01	8.7	10.8	6.8	12.6	16.3	10.7	11.2	13.2	9.0	9.7	12.0	8.4
07/20/01	8.9	11.6	7.0	13.1	17.4	10.8	11.3	13.4	9.0	9.8	12.4	8.4
07/21/01	9.0	11.9	7.0	13.4	18.2	11.0	11.4	13.5	9.2	9.9	12.6	8.7
07/22/01	9.0	12.1	6.7	13.6	19.2	11.0	11.5	13.5	9.2	9.8	12.4	8.4
07/23/01	9.2	12.1	7.3	13.8	19.3	11.5	11.7	13.7	9.5	10.0	12.1	8.9
07/24/01	9.5	12.7	7.3	14.6	21.6	11.5	12.0	14.0	9.8	10.2	12.8	9.0
07/25/01	9.7	13.1	7.1	15.5	23.8	11.9	12.4	14.3	10.3	10.6	13.1	9.2
07/26/01	10.3	13.5	8.2	16.3	25.0	12.7	12.9	14.9	10.9	11.2	13.8	10.1
07/27/01	10.2	13.8	7.7	D	D	D	12.8	14.8	10.9	11.1	13.8	10.0
07/28/01	9.9	13.8	7.4	D	D	D	12.5	14.5	10.4	10.8	13.5	9.6
07/29/01	9.8	14.1	7.1	D	D	D	12.2	14.3	10.1	10.8	13.7	9.3
07/30/01	9.4	13.5	6.7	D	D	D	11.8	13.7	9.8	10.5	13.4	9.2
07/31/01	9.7	13.9	7.0	D	D	D	12.0	14.1	10.1	10.7	13.5	9.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek Upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	9.9	13.6	7.3	D	D	D	12.2	14.3	10.3	10.9	13.7	9.6
08/02/01	10.3	14.4	7.7	D	D	D	12.6	14.6	10.8	11.3	14.1	10.1
08/03/01	10.4	14.4	8.1	D	D	D	12.8	14.8	10.9	11.5	14.5	10.4
08/04/01	9.5	13.6	6.5	D	D	D	12.1	13.8	10.3	10.7	13.4	9.5
08/05/01	9.6	14.2	6.7	D	D	D	11.8	14.1	9.8	10.6	13.7	9.3
08/06/01	9.2	13.6	6.8	D	D	D	11.7	13.1	10.1	10.3	10.9	9.5
08/07/01	9.9	12.5	7.7	D	D	D	12.3	14.1	10.8	11.1	12.8	10.1
08/08/01	10.3	13.8	8.2	D	D	D	12.7	14.3	11.4	11.4	13.4	10.7
08/09/01	10.0	13.3	7.9	D	D	D	12.4	13.8	11.1	11.4	13.8	10.4
08/10/01	10.3	13.9	8.1	D	D	D	12.4	14.1	10.9	11.6	14.0	10.6
08/11/01	10.1	14.2	7.4	D	D	D	12.4	14.5	10.6	11.4	14.1	10.3
08/12/01	9.9	14.2	7.3	D	D	D	12.4	14.6	10.8	11.3	14.1	10.1
08/13/01	9.7	13.8	7.3	D	D	D	12.3	14.5	10.6	11.3	14.0	10.1
08/14/01	9.8	13.9	7.1	D	D	D	12.4	14.6	10.8	11.3	14.0	10.1
08/15/01	9.7	13.1	7.4	D	D	D	12.1	14.0	10.6	11.3	13.7	10.1
08/16/01	9.8	14.1	7.1	D	D	D	12.3	14.5	10.6	11.3	14.0	10.1
08/17/01	9.8	13.9	7.1	D	D	D	12.3	14.3	10.6	11.3	14.0	10.1
08/18/01	9.9	13.9	7.4	D	D	D	12.5	14.5	10.9	11.5	14.1	10.3
08/19/01	9.7	13.6	7.3	D	D	D	12.4	14.3	10.8	11.4	14.0	10.3
08/20/01	9.3	13.3	7.1	D	D	D	12.1	14.0	10.6	11.2	13.8	10.1
08/21/01	8.5	12.2	6.2	D	D	D	11.6	13.4	10.1	10.6	12.9	9.6
08/22/01	8.2	11.4	6.0	D	D	D	11.1	12.3	9.8	10.1	12.0	9.2
08/23/01	8.0	11.9	5.3	D	D	D	11.0	12.9	9.2	9.8	12.1	8.6
08/24/01	8.1	11.8	5.3	D	D	D	11.2	13.1	9.4	9.7	12.3	8.4
08/25/01	8.7	12.4	6.2	D	D	D	11.6	13.8	9.8	10.2	12.9	9.0
08/26/01	9.0	12.7	6.7	D	D	D	12.0	14.3	10.4	10.6	13.2	9.5
08/27/01	9.3	13.0	7.1	D	D	D	12.2	14.1	10.6	10.9	13.5	9.8
08/28/01	9.2	12.7	7.0	D	D	D	12.1	14.1	10.6	10.9	13.4	9.8
08/29/01	9.0	12.4	6.7	D	D	D	12.0	13.7	10.6	10.9	13.4	9.8
08/30/01	8.8	12.5	6.8	D	D	D	11.9	13.5	10.6	10.9	13.4	10.0
08/31/01	8.5	12.1	6.5	D	D	D	11.6	13.4	10.3	10.6	13.1	9.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek Upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	8.3	11.8	6.2	D	D	D	11.4	13.4	10.0	10.3	12.8	9.3
09/02/01	8.2	11.6	6.4	D	D	D	11.2	12.5	10.0	10.0	11.5	9.3
09/03/01	8.0	10.7	6.8	D	D	D	11.1	12.5	10.3	10.0	10.4	9.6
09/04/01	8.0	10.8	6.2	D	D	D	11.2	13.4	9.8	10.0	12.0	9.0
09/05/01	8.0	10.8	6.4	D	D	D	11.4	13.1	10.3	10.1	12.4	9.3
09/06/01	7.1	10.4	5.0	D	D	D	10.8	12.8	9.4	9.3	11.5	8.3
09/07/01	7.4	10.7	5.4	D	D	D	10.8	12.8	9.4	9.3	11.7	8.3
09/08/01	7.3	10.5	5.1	D	D	D	10.8	12.9	9.4	9.1	11.4	8.1
09/09/01	7.1	10.4	5.3	D	D	D	10.7	12.8	9.4	9.0	11.4	8.1
09/10/01	7.2	10.2	5.4	D	D	D	10.6	12.5	9.4	9.1	11.2	8.3
09/11/01	7.7	9.4	6.5	D	D	D	10.7	11.5	10.0	9.4	10.3	8.9
09/12/01	7.0	9.6	5.6	D	D	D	10.5	12.6	9.4	9.0	10.9	8.4
09/13/01	6.2	9.0	4.0	D	D	D	10.2	12.5	8.9	8.3	10.1	7.3
09/14/01	6.1	9.0	4.0	D	D	D	10.1	12.1	8.7	8.0	9.8	7.0
09/15/01	6.2	8.8	4.2	D	D	D	10.0	12.1	8.7	7.9	9.6	7.0
09/16/01	6.1	8.5	4.2	D	D	D	9.9	12.0	8.6	7.8	9.6	6.9
09/17/01	6.3	8.7	4.5	D	D	D	9.9	12.0	8.7	7.9	9.6	7.2
09/18/01	6.5	8.8	5.0	D	D	D	10.1	12.1	8.9	8.0	9.8	7.3
09/19/01	6.7	8.8	4.8	D	D	D	10.2	12.1	9.0	8.1	10.0	7.3
09/20/01	7.0	9.1	5.3	D	D	D	10.3	12.3	9.2	8.3	9.5	7.8
09/21/01	6.8	9.0	5.1	D	D	D	10.3	12.3	9.2	8.2	9.8	7.5
09/22/01	6.7	8.8	4.8	D	D	D	10.3	12.1	9.2	8.1	9.5	7.5
09/23/01	6.5	8.5	5.0	D	D	D	10.0	10.9	9.2	8.1	9.2	7.5
09/24/01	6.5	8.7	4.5	D	D	D	9.8	10.8	8.9	8.0	9.3	7.2
09/25/01	7.0	9.1	5.7	D	D	D	10.4	12.6	9.7	8.5	10.1	7.9
09/26/01	6.2	8.2	4.5	D	D	D	10.0	11.8	8.9	7.9	9.5	7.3
09/27/01	6.0	8.2	4.6	D	D	D	9.8	11.7	8.7	7.8	9.3	7.3
09/28/01	5.7	7.6	4.2	D	D	D	9.6	11.2	8.6	7.6	9.2	7.0
09/29/01	5.8	7.7	4.2	D	D	D	9.6	11.4	8.6	7.4	9.2	6.9
09/30/01	5.8	7.3	4.2	D	D	D	9.6	10.9	8.6	7.3	7.9	6.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Crater Creek Diversion			Crater Diversion Inflow to Florence Lake			Crater Creek Upstream of SFSJR			Chinquapin Creek Diversion		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	6.1	7.6	4.6	D	D	D	9.7	10.6	8.9	7.6	8.9	7.0
10/02/01	6.2	8.1	4.6	D	D	D	10.0	11.5	9.0	7.6	8.7	7.0
10/03/01	6.2	7.7	4.8	D	D	D	10.0	11.5	9.0	7.7	9.2	7.2
10/04/01	6.1	7.7	4.8	D	D	D	10.1	11.5	9.2	7.7	9.2	7.2
10/05/01	6.0	7.4	4.8	D	D	D	9.9	11.5	9.0	7.6	8.9	7.0
10/06/01	5.4	6.8	4.2	D	D	D	9.6	10.9	8.6	7.2	8.6	6.7
10/07/01	4.8	6.2	3.4	D	D	D	9.3	10.6	8.3	6.6	7.9	5.9
10/08/01	5.2	6.5	4.2	D	D	D	9.1	9.8	8.4	6.7	7.3	6.2
10/09/01	4.2	5.4	2.8	D	D	D	9.1	10.4	8.1	6.0	7.2	5.3
10/10/01	3.9	5.3	2.3	D	D	D	8.9	9.8	8.1	5.4	6.4	4.8
10/11/01	4.4	6.0	3.1	D	D	D	8.8	9.5	8.3	5.7	6.5	5.0
10/12/01	4.4	5.9	2.9	D	D	D	9.0	10.4	7.8	5.6	6.7	5.0
10/13/01	4.1	5.6	2.8	D	D	D	8.9	10.4	7.8	5.3	6.2	4.7
10/14/01	4.1	5.7	2.6	D	D	D	8.7	9.8	7.8			
10/15/01	4.4	5.9	3.2	D	D	D	8.9	10.3	8.1			
10/16/01	4.5	5.9	3.2	D	D	D	9.0	10.3	8.1			
10/17/01	4.5	5.9	3.4	D	D	D	8.9	9.8	8.1			
10/18/01	4.1	5.4	2.8	D	D	D	8.8	10.1	7.8			
10/19/01	4.3	5.9	2.9	D	D	D	8.6	9.5	7.8			
10/20/01	4.2	5.3	2.8	D	D	D	8.8	10.0	8.0			
10/21/01	4.1	5.7	3.1	D	D	D	8.5	9.2	8.0			
10/22/01	3.5	4.6	2.5	D	D	D	8.3	9.5	7.5			
10/23/01	3.6	4.8	2.8									
10/24/01	3.1	4.5	1.7									
10/25/01	3.2	4.5	2.0									
10/26/01	3.2	4.5	2.0									
10/27/01	3.4	4.6	2.3									
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Camp 62 Creek Diversion			Camp 62 Creek Upstream of SFSJR			Bolsillo Creek Diversion			Bolsillo Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01												
05/19/01												
05/20/01												
05/21/01	5.9	8.8	3.9				8.5	10.2	6.5			
05/22/01	6.1	8.2	4.3	11.0	12.8	9.2	8.8	10.3	7.3	10.4	12.2	8.8
05/23/01	6.2	8.5	4.6	11.0	12.8	9.4	8.9	10.5	7.4	10.5	12.4	9.0
05/24/01	6.3	9.0	4.3	10.9	12.8	9.2	9.0	10.8	7.3	10.5	12.1	9.0
05/25/01	6.6	9.6	4.5	11.2	13.3	9.4	9.3	11.1	7.6	10.6	12.6	9.0
05/26/01	6.2	8.5	4.5	11.0	13.1	9.2	9.0	10.5	7.6	10.3	12.1	8.8
05/27/01	6.2	8.5	4.3	10.7	12.8	8.9	8.7	10.2	7.3	10.0	11.9	8.5
05/28/01	6.4	8.4	4.5	10.7	12.8	8.9	8.7	10.3	7.4	9.9	11.8	8.4
05/29/01	7.0	9.1	4.6	11.1	13.3	9.1	9.3	11.1	7.6	10.3	12.2	8.5
05/30/01	7.6	9.8	5.6	11.6	13.7	9.7	10.0	11.9	8.5	10.8	12.9	9.2
05/31/01	8.2	10.5	6.2	12.1	14.4	10.2	10.7	12.5	9.3	11.3	13.3	9.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Camp 62 Creek Diversion			Camp 62 Creek Upstream of SFSJR			Bolsillo Creek Diversion			Bolsillo Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	8.1	10.1	6.5	12.2	14.2	10.5	10.7	12.4	9.6	11.4	13.3	9.9
06/02/01	7.1	8.7	5.9	11.4	13.3	10.2	9.5	11.1	8.0	10.6	12.2	9.3
06/03/01	5.9	7.8	4.0	10.2	12.2	8.3	8.0	9.7	6.6	9.6	11.5	7.9
06/04/01	6.4	8.1	4.6	10.3	12.3	8.5	8.1	9.9	6.6	9.7	11.5	8.1
06/05/01	7.0	8.7	5.3	10.6	12.7	8.8	8.3	10.2	7.0	9.8	11.6	8.2
06/06/01	7.8	9.6	6.2	11.3	13.4	9.2	9.0	11.1	7.6	10.4	12.4	8.5
06/07/01	8.1	9.8	6.5	11.8	13.9	10.0	9.4	11.4	8.0	10.8	12.7	9.2
06/08/01	7.8	9.6	6.2	11.5	13.7	9.5	9.3	11.3	7.9	10.6	12.6	8.8
06/09/01	8.0	9.6	6.5	11.6	13.7	9.7	9.3	11.3	7.9	10.6	12.6	9.0
06/10/01	8.1	9.8	6.7	11.6	13.7	9.9	9.3	11.3	7.9	10.7	12.6	9.2
06/11/01	7.8	9.1	6.4	11.4	13.3	9.5	9.0	10.8	7.6	10.4	12.2	8.8
06/12/01	7.9	9.1	6.7	11.3	13.3	9.7	8.9	10.7	7.7	10.4	12.1	8.8
06/13/01	7.2	8.4	5.9	10.8	12.7	8.9	8.3	10.2	6.8	9.9	11.5	8.2
06/14/01	7.5	9.0	6.2	11.0	13.1	9.1	8.6	10.5	7.0	10.1	12.1	8.4
06/15/01	8.2	9.8	6.8	11.6	13.9	9.5	9.1	11.1	7.6	10.5	12.6	8.7
06/16/01	8.4	9.9	7.0	12.0	14.0	9.9	9.5	11.4	7.9	10.8	12.7	9.0
06/17/01	8.7	9.9	7.3	12.2	14.2	10.3	9.7	11.4	8.2	10.9	12.7	9.3
06/18/01	8.6	9.9	7.1	12.2	14.4	10.3	9.7	11.9	8.0	10.9	12.7	9.2
06/19/01	8.7	9.9	7.3	12.6	14.8	10.5	9.9	12.0	8.2	11.0	13.0	9.3
06/20/01	9.2	10.5	7.9	13.1	15.3	11.1	10.4	12.7	8.8	11.3	13.3	9.6
06/21/01	9.7	10.9	8.5	13.7	15.8	11.7	10.9	13.0	9.4	11.5	13.5	9.9
06/22/01	10.3	11.5	9.1	14.3	16.4	12.5	11.5	13.6	10.0	11.9	13.9	10.2
06/23/01	10.4	11.8	9.3	14.3	16.6	12.7	11.6	13.7	10.2	11.7	13.8	10.1
06/24/01	9.9	10.9	9.0	13.7	15.8	12.2	11.0	12.8	9.9	11.2	13.2	9.8
06/25/01	9.1	11.3	8.1	12.9	15.1	11.1	10.2	12.4	8.6	10.7	12.7	8.8
06/26/01	9.1	9.8	8.4	13.1	14.2	12.0	10.0	11.0	9.1	11.0	12.4	9.8
06/27/01	9.5	11.3	8.5	13.5	15.8	12.0	10.4	12.4	9.1	11.3	13.3	9.9
06/28/01	9.5	11.3	8.1	13.6	16.1	11.4	10.5	12.4	8.8	11.2	13.3	9.0
06/29/01	9.9	11.6	8.5	14.1	16.6	12.0	11.0	12.8	9.3	11.5	13.5	9.3
06/30/01	10.3	11.6	9.0	14.6	17.1	12.5	11.5	13.4	9.9	11.8	13.6	9.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Camp 62 Creek Diversion			Camp 62 Creek Upstream of SFSJR			Bolsillo Creek Diversion			Bolsillo Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	10.5	11.9	9.3	15.0	17.4	13.0	11.8	13.4	10.3	11.9	13.9	9.9
07/02/01	11.1	12.6	9.9	15.4	18.0	13.4	12.3	14.2	11.0	12.1	14.6	10.2
07/03/01	11.2	11.8	10.4	15.2	16.1	14.2	12.2	13.0	11.4	11.9	12.9	10.9
07/04/01	11.5	12.4	10.9	15.4	16.7	14.7	12.3	13.6	11.7	12.0	13.5	11.2
07/05/01	11.7	12.9	10.9	15.4	17.1	14.0	12.3	13.3	11.4	12.4	13.9	11.3
07/06/01	11.3	11.6	11.2	15.0	15.3	14.5	11.9	12.4	11.3	12.0	12.4	11.5
07/07/01	11.1	11.5	10.9	14.1	14.4	13.6	11.2	11.4	11.0	12.9	13.6	12.4
07/08/01	10.9	11.9	10.2	13.8	15.0	12.7	11.2	12.7	10.3	12.7	14.1	11.9
07/09/01	10.4	11.2	9.6	13.5	14.8	12.3	10.9	12.0	10.0	12.3	13.5	11.2
07/10/01	10.3	11.2	9.5	13.3	14.5	12.0	10.6	11.4	9.7	12.1	13.0	11.2
07/11/01	10.7	12.4	9.6	14.1	16.4	12.3	11.4	13.6	10.0	12.4	14.1	11.0
07/12/01	10.6	12.1	9.5	14.2	16.6	12.3	11.5	13.7	9.9	12.0	13.9	10.4
07/13/01	10.2	11.5	9.1	13.8	15.6	12.0	11.1	12.5	9.7	11.6	13.2	9.9
07/14/01	10.4	11.6	9.1	14.1	16.4	12.2	11.4	13.7	9.9	11.7	13.8	9.9
07/15/01	10.0	11.3	8.7	13.7	15.9	11.7	11.0	13.1	9.4	11.2	13.3	9.2
07/16/01	9.8	11.0	8.7	13.5	15.6	11.7	10.7	12.4	9.3	11.0	13.3	9.2
07/17/01	9.7	10.7	8.5	13.6	15.8	11.7	10.3	11.4	9.1	11.1	13.5	9.2
07/18/01	10.0	11.3	8.8	14.0	16.3	12.2	10.7	12.8	9.1	11.4	13.8	9.5
07/19/01	9.9	11.2	8.7	13.9	16.1	12.0	10.7	12.8	9.3	11.3	13.6	9.3
07/20/01	10.0	11.3	8.8	14.0	16.3	12.0	10.7	12.7	9.3	11.3	13.9	9.2
07/21/01	10.0	11.3	8.8	14.1	16.4	12.2	10.7	12.7	9.3	11.3	14.1	9.2
07/22/01	10.0	11.3	8.8	14.1	16.4	12.0	10.8	12.8	9.1	11.3	14.1	9.0
07/23/01	10.3	11.5	9.1	14.4	16.7	12.5	11.0	13.0	9.6	11.5	14.6	9.3
07/24/01	10.5	11.8	9.3	14.7	16.7	12.7	11.3	13.3	9.9	11.8	14.7	9.5
07/25/01	10.9	12.1	9.6	15.2	17.2	13.1	11.8	13.7	10.2	12.4	15.5	9.9
07/26/01	11.5	12.7	10.5	16.1	18.0	14.2	12.4	14.4	11.1	13.2	16.3	11.0
07/27/01	11.4	12.4	10.4	15.8	17.7	13.9	12.4	14.4	11.0	13.1	16.5	10.7
07/28/01	11.2	12.3	10.1	15.4	17.5	13.4	12.2	14.2	10.8	12.8	16.5	10.2
07/29/01	11.1	12.3	9.9	15.3	17.5	13.3	12.1	14.2	10.7	12.9	16.6	10.2
07/30/01	10.8	11.8	9.8	14.8	16.7	13.0	11.7	13.6	10.3	12.6	16.1	10.1
07/31/01	11.0	12.1	9.9	15.1	17.2	13.3	11.7	13.6	10.2	13.1	16.9	10.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Camp 62 Creek Diversion			Camp 62 Creek Upstream of SFSJR			Bolsillo Creek Diversion			Bolsillo Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	11.3	12.4	10.2	15.5	17.7	13.4	12.0	14.1	10.7	13.7	17.6	10.9
08/02/01	11.6	12.7	10.7	16.0	18.0	14.2	12.5	14.4	11.1	14.3	18.1	11.8
08/03/01	11.9	12.9	11.0	16.2	18.2	14.5	12.7	14.7	11.4	14.5	18.2	12.1
08/04/01	11.3	12.1	10.4	15.2	16.9	13.4	12.0	13.9	10.7	13.5	16.6	11.0
08/05/01	11.1	12.3	10.2	15.1	17.4	13.1	12.0	14.1	10.5	13.4	17.1	10.5
08/06/01	11.1	11.8	10.4	15.1	16.4	13.4	11.9	13.0	10.8	13.4	15.2	11.0
08/07/01	11.6	12.6	10.9	16.0	17.9	14.2	12.3	13.4	11.3	14.8	17.9	12.1
08/08/01	12.1	12.7	11.6	16.4	18.0	15.1	12.8	14.4	11.9	15.3	17.7	13.2
08/09/01	12.2	13.0	11.5	16.3	18.2	14.5	13.1	15.1	11.9	15.4	18.4	12.7
08/10/01	12.4	13.0	11.8	16.4	18.2	14.8	13.2	14.8	12.2	15.4	18.2	13.2
08/11/01	12.1	12.7	11.5	16.1	18.2	14.2	12.9	15.0	11.1	15.0	17.6	12.4
08/12/01	12.1	12.7	11.5	16.0	18.0	14.2	13.1	15.0	11.7	15.0	17.3	12.4
08/13/01	12.2	13.0	11.5	15.9	17.9	14.0	13.0	14.8	11.7	14.8	16.8	12.2
08/14/01	12.2	13.2	11.5	16.0	18.0	14.2	12.9	14.8	11.7	14.9	16.9	12.6
08/15/01	12.2	13.0	11.5	15.9	17.7	14.2	12.8	14.4	11.6	14.8	16.8	12.4
08/16/01	12.4	13.3	11.5	16.0	18.0	14.2	12.9	14.8	11.7	14.9	16.8	12.6
08/17/01	12.5	13.3	11.5	16.0	17.9	14.2	12.7	14.7	11.0	15.0	16.9	12.6
08/18/01	12.8	13.6	11.8	16.2	18.2	14.5	13.1	15.0	11.9	15.2	16.8	12.9
08/19/01	12.8	13.6	11.8	16.0	18.0	14.2	13.2	15.0	12.0	15.0	16.6	12.9
08/20/01	12.6	13.5	11.6	15.6	17.5	13.9	12.8	14.7	11.7	14.5	16.0	12.4
08/21/01	12.0	12.9	11.0	14.8	16.4	13.4	11.9	13.6	11.0	13.8	15.5	11.8
08/22/01	11.4	12.3	10.5	14.3	15.8	12.8	11.4	12.5	10.3	13.3	15.0	11.3
08/23/01	11.1	11.9	9.9	14.0	15.8	12.2	11.0	12.7	9.7	13.0	14.7	10.5
08/24/01	11.1	11.9	9.9	14.3	16.1	12.2	11.1	12.8	9.7	13.3	14.9	10.7
08/25/01	11.6	12.6	10.4	14.9	16.7	13.0	11.7	13.4	10.3	13.8	15.4	11.5
08/26/01	12.0	13.0	11.0	15.4	17.4	13.6	12.1	13.9	11.0	14.2	15.7	12.2
08/27/01	12.4	13.2	11.5	15.8	17.7	14.0	12.5	14.1	11.3	14.6	16.3	12.7
08/28/01	12.5	13.3	11.5	15.8	17.7	13.9	12.6	14.4	11.4	14.6	16.1	12.7
08/29/01	12.5	13.2	11.5	15.7	17.4	14.0	12.6	14.1	11.4	14.7	16.0	12.9
08/30/01	12.4	13.2	11.5	15.6	17.4	14.0	12.4	13.9	11.4	14.6	15.8	12.9
08/31/01	12.1	12.7	11.2	15.1	16.7	13.4	12.1	13.6	11.1	14.0	15.4	12.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Camp 62 Creek Diversion			Camp 62 Creek Upstream of SFSJR			Bolsillo Creek Diversion			Bolsillo Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	11.9	12.7	10.9	14.9	16.7	13.3	11.8	13.3	10.7	13.8	15.0	11.9
09/02/01	11.6	12.3	10.9	14.7	16.3	13.1	11.7	12.8	10.7	13.8	15.2	11.9
09/03/01	11.6	12.1	11.2	14.7	15.5	13.9	11.5	12.2	11.0	14.1	15.4	12.7
09/04/01	11.1	11.8	10.5	14.5	16.1	12.8	11.3	12.7	10.2	13.5	14.7	11.8
09/05/01	11.4	12.1	10.7	14.8	16.6	13.4	11.4	13.0	10.5	13.6	14.7	12.4
09/06/01	10.7	11.3	9.8	13.8	15.5	12.0	10.6	12.0	9.6	12.4	13.3	10.5
09/07/01	10.6	11.3	9.8	13.8	15.6	12.0	10.7	12.2	9.6	12.4	13.8	10.7
09/08/01	10.6	11.3	9.6	13.8	15.6	12.0	10.6	12.0	9.6	12.3	13.5	10.5
09/09/01	10.5	11.3	9.6	13.7	15.5	12.0	10.5	12.0	9.6	12.1	13.5	10.4
09/10/01	10.5	11.2	9.6	13.6	15.3	12.0	10.5	11.9	9.6	12.1	13.3	10.2
09/11/01	10.8	11.3	10.2	14.2	15.1	13.3	10.7	11.7	10.0	13.3	14.7	11.8
09/12/01	10.4	10.9	9.8	13.4	14.8	12.0	10.2	11.4	9.4	12.0	13.0	10.7
09/13/01	9.6	10.2	8.8	12.8	14.2	11.1	9.5	10.7	8.3	11.2	12.2	9.6
09/14/01	9.3	9.9	8.5	12.6	14.2	10.8	9.3	10.7	8.3	10.9	12.1	9.3
09/15/01	9.2	9.8	8.5	12.6	14.2	10.9	9.3	10.7	8.3	10.6	11.9	9.0
09/16/01	9.1	9.5	8.4	12.5	14.0	10.9	9.1	10.5	8.2	10.3	11.8	8.1
09/17/01	9.1	9.5	8.5	12.6	14.2	11.1	9.1	10.5	8.2	10.5	11.8	8.7
09/18/01	9.2	9.6	8.7	12.9	14.5	11.4	9.4	10.8	8.3	10.8	12.2	8.7
09/19/01	9.4	9.8	8.8	13.1	14.7	11.6	9.5	10.8	8.5	10.9	12.2	8.8
09/20/01	9.6	9.9	9.1	13.4	15.0	11.9	9.7	11.0	9.0	11.1	12.5	8.7
09/21/01	9.6	9.9	9.0	13.2	14.8	11.7	9.7	10.8	8.8	10.8	12.2	7.8
09/22/01	9.5	9.8	9.0	13.1	14.7	11.6	9.7	10.8	8.8	10.8	12.5	7.8
09/23/01	9.5	9.8	9.0	13.0	14.2	11.7	9.6	10.3	8.8	10.9	12.9	8.1
09/24/01	9.2	9.6	8.7	12.7	14.4	10.9	9.5	10.3	8.6	10.9	13.8	7.4
09/25/01	9.7	10.1	9.5	13.7	15.0	13.0	9.9	11.3	9.3	11.7	13.8	10.2
09/26/01	9.3	9.8	8.7	12.7	14.2	11.1	9.3	10.5	8.3	9.9	11.6	6.5
09/27/01	9.0	9.3	8.5	12.3	13.9	10.9	9.2	10.7	8.5	10.1	13.0	7.6
09/28/01	8.7	9.0	8.2	11.9	13.4	10.5	8.8	10.2	8.0	9.1	11.5	6.1
09/29/01	8.6	9.0	8.1	11.9	13.6	10.3	8.7	10.2	7.9	9.0	10.8	6.1
09/30/01	8.6	9.0	8.1	11.9	13.1	10.5	8.8	9.4	8.0	9.8	11.8	7.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Camp 62 Creek Diversion			Camp 62 Creek Upstream of SFSJR			Bolsillo Creek Diversion			Bolsillo Creek Upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	8.8	9.1	8.4	12.2	13.6	10.8	9.0	9.9	8.3	10.1	12.4	7.3
10/02/01	8.9	9.1	8.5	12.5	14.0	11.1	9.3	10.7	8.5	10.8	15.2	7.4
10/03/01	9.0	9.3	8.5	12.6	14.0	11.1	9.4	10.8	8.6	10.7	13.5	7.6
10/04/01	9.1	9.3	8.7	12.6	14.0	11.3	9.3	10.8	8.6	10.7	13.9	7.9
10/05/01	9.0	9.1	8.5	12.4	13.7	11.3	9.1	10.3	8.5	10.5	13.8	8.1
10/06/01	8.6	9.0	8.1	11.6	13.0	10.5	8.5	9.9	7.7	9.1	12.4	6.4
10/07/01	8.0	8.4	7.4	11.0	12.3	9.5	7.9	9.4	7.1	8.5	12.1	5.1
10/08/01	7.9	8.2	7.6	11.2	12.3	10.2	7.8	8.3	7.3	9.8	14.9	6.5
10/09/01	7.4	8.1	6.8	10.5	11.6	9.2	7.2	8.5	6.3	7.9	10.8	4.2
10/10/01	6.8	7.1	6.2	9.9	11.3	8.3	6.6	7.6	5.9	7.5	11.8	3.6
10/11/01	6.8	7.3	6.2	10.2	11.6	8.9	6.8	7.4	6.0	8.7	14.2	4.8
10/12/01	6.8	7.1	6.4	10.1	11.7	8.6	6.8	8.3	6.0	8.2	14.1	4.2
10/13/01	6.7	7.1	6.2	9.8	11.4	8.3	6.9	8.5	6.2	7.6	11.9	3.7
10/14/01				9.7	11.3	8.2				8.1	13.9	3.9
10/15/01				10.1	11.6	8.8				8.6	12.5	5.1
10/16/01				10.3	11.6	8.9				8.8	13.8	5.3
10/17/01				10.2	11.3	9.1				8.5	13.3	5.3
10/18/01				9.9	11.3	8.6				7.7	11.3	4.6
10/19/01				10.0	11.3	8.6				8.6	14.6	4.8
10/20/01				10.0	11.1	8.8				8.0	11.6	4.8
10/21/01				9.8	11.3	8.6				8.0	13.6	4.5
10/22/01				9.2	10.3	8.0				6.6	10.1	3.7
10/23/01				9.3	10.5	8.2				6.7	10.1	4.3
10/24/01												
10/25/01												
10/26/01												
10/27/01												
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01												
05/19/01												
05/20/01												
05/21/01												
05/22/01												
05/23/01										14.1	15.2	12.4
05/24/01										14.2	16.3	11.8
05/25/01										14.5	16.7	12.3
05/26/01										14.3	16.5	12.1
05/27/01										14.0	16.2	11.7
05/28/01										13.9	16.0	11.7
05/29/01										14.2	16.5	11.7
05/30/01										14.8	17.1	12.4
05/31/01										15.5	17.8	12.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01										15.6	17.6	13.4
06/02/01										14.5	16.3	12.4
06/03/01										13.2	15.2	10.9
06/04/01										13.2	15.6	10.9
06/05/01										13.6	15.9	11.3
06/06/01										14.3	16.8	11.8
06/07/01										15.0	17.3	12.7
06/08/01										14.8	17.0	12.3
06/09/01										14.6	16.8	12.3
06/10/01										14.6	16.8	12.4
06/11/01	10.21	14.73	8.08	13.2	16.3	10.2	11.1	15.0	9.1	14.2	16.2	12.0
06/12/01	10.27	14.73	8.08	13.1	16.5	10.1	11.2	15.2	8.9	14.1	16.2	11.8
06/13/01	10.08	14.57	7.93	13.0	16.2	10.1	11.0	14.9	8.8	13.7	15.9	11.5
06/14/01	10.31	14.89	8.08	13.0	16.8	9.8	11.0	15.3	8.8	13.8	16.2	11.3
06/15/01	10.53	15.21	8.39	13.5	17.1	10.2	11.4	15.6	9.2	14.3	16.8	11.8
06/16/01	10.62	15.21	8.39	13.7	17.1	10.4	11.6	15.8	9.2	14.8	17.1	12.3
06/17/01	10.53	14.89	8.39	13.6	16.6	10.8	11.6	15.5	9.6	15.0	17.0	12.7
06/18/01	10.55	15.04	8.39	13.6	17.1	10.4	11.5	15.6	9.4	14.8	17.1	12.3
06/19/01	10.63	15.21	8.39	13.7	17.3	10.4	11.6	15.8	9.4	14.9	17.1	12.4
06/20/01	10.75	15.21	8.54	13.9	17.3	10.8	11.8	15.8	9.7	15.2	17.5	12.7
06/21/01	10.87	15.36	8.70	14.1	17.3	11.2	12.0	16.1	9.9	15.7	17.9	13.2
06/22/01	11.01	15.36	8.86	14.3	17.4	11.3	12.3	16.1	10.2	16.2	18.4	13.8
06/23/01	10.90	15.36	8.86	14.3	17.4	11.3	12.2	16.3	10.2	16.2	18.4	14.0
06/24/01	10.54	14.26	8.70	13.8	16.3	11.2	11.8	15.3	9.9	15.4	17.1	13.5
06/25/01	10.40	14.89	8.39	13.3	16.6	10.2	11.3	15.2	9.2	14.4	16.3	12.1
06/26/01	10.41	13.34	8.86	12.9	14.6	11.0	11.5	14.1	10.0	14.4	15.9	12.7
06/27/01	10.74	15.04	8.86	13.4	17.0	10.8	11.7	15.3	10.0	14.7	17.1	12.6
06/28/01	10.77	15.36	8.39	13.7	17.3	10.2	11.7	16.0	9.4	14.9	17.1	12.4
06/29/01	10.94	15.52	8.70	14.2	17.4	11.0	12.1	16.1	9.9	15.4	17.8	12.9
06/30/01	11.03	15.52	8.86	14.4	17.6	11.6	12.3	16.3	10.2	16.0	18.3	13.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	9.82	10.56	9.01	11.6	15.4	10.2	10.9	12.4	10.0	15.4	17.1	13.8
07/02/01	10.02	11.17	9.62	10.3	11.9	9.6	10.3	11.9	9.7	14.7	16.3	12.9
07/03/01	9.98	10.24	9.78	10.2	10.7	9.9	10.2	10.8	9.9	15.0	15.6	14.1
07/04/01	10.06	10.71	9.93	10.3	11.2	9.9	10.4	11.3	10.0	15.0	16.2	14.0
07/05/01	10.06	10.40	9.93	10.3	10.7	9.9	10.4	10.8	10.0	15.3	16.7	14.3
07/06/01	10.09	10.24	9.93	10.2	10.5	10.1	10.3	10.5	10.0	15.1	15.9	14.4
07/07/01	10.16	10.56	9.93	10.3	11.0	9.9	10.4	11.1	10.0	14.2	14.6	13.7
07/08/01	10.13	11.17	9.78	10.3	11.8	9.9	10.4	12.0	9.9	14.4	15.9	13.1
07/09/01	10.10	10.87	9.78	10.4	11.5	9.8	10.4	11.7	9.7	14.1	15.2	12.9
07/10/01	10.15	11.02	9.78	10.4	11.3	9.8	10.4	11.3	9.7	13.7	14.6	12.6
07/11/01	10.22	10.87	9.93	10.5	11.5	9.9	10.5	11.7	9.9	14.6	17.0	12.4
07/12/01	10.33	13.03	9.93	10.6	12.2	9.9	10.6	12.4	9.9	15.4	17.3	13.5
07/13/01	10.27	10.87	9.93	10.5	11.5	9.9	10.5	11.6	9.9	15.0	16.5	13.5
07/14/01	10.35	11.02	10.09	10.6	11.6	10.1	10.6	11.7	10.0	15.2	17.1	13.2
07/15/01	10.35	10.87	10.09	10.6	11.6	9.9	10.6	11.7	9.9	15.0	17.0	13.2
07/16/01	11.17	14.89	9.47	11.6	14.7	10.1	11.0	12.8	9.9	14.8	16.7	13.1
07/17/01	10.94	15.04	8.86	12.1	14.6	10.4	11.0	13.4	9.7	14.9	17.0	13.1
07/18/01	10.19	11.79	9.01	12.2	13.5	10.5	11.4	13.0	10.2	15.3	17.1	13.5
07/19/01	10.36	11.17	9.93	10.7	11.9	9.9	10.7	12.0	9.9	15.4	17.3	13.5
07/20/01	10.44	11.17	10.09	10.7	11.9	10.1	10.7	12.0	10.0	15.2	17.1	13.4
07/21/01	10.48	11.17	10.09	10.8	11.9	10.1	10.8	12.0	10.0	15.2	17.1	13.4
07/22/01	10.51	11.17	10.09	10.8	11.9	10.1	10.8	12.0	10.0	15.2	17.1	13.2
07/23/01	10.56	11.33	10.24	10.9	12.1	10.2	10.9	12.2	10.2	15.3	17.3	13.4
07/24/01	10.58	11.33	10.24	10.9	12.2	10.2	10.9	12.2	10.2	15.6	17.6	13.7
07/25/01	10.70	11.33	10.24	11.0	12.4	10.2	11.0	12.4	10.2	15.9	17.8	14.0
07/26/01	10.82	11.48	10.56	11.1	12.2	10.5	11.2	12.4	10.5	16.6	18.6	14.8
07/27/01	10.80	11.48	10.40	11.1	12.2	10.4	11.1	12.4	10.5	16.7	18.4	14.9
07/28/01	10.82	11.48	10.40	11.1	12.2	10.4	11.1	12.4	10.3	16.2	17.9	14.3
07/29/01	10.85	11.48	10.56	11.1	12.2	10.5	11.1	12.4	10.5	15.8	17.8	14.0
07/30/01	10.87	11.64	10.56	11.1	12.2	10.5	11.1	12.4	10.3	15.4	17.1	13.7
07/31/01	10.93	11.64	10.56	11.2	12.4	10.5	11.2	12.5	10.5	15.5	17.5	13.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	11.01	11.64	10.71	11.3	12.6	10.7	11.4	12.7	10.7	15.8	17.8	14.0
08/02/01	11.06	11.79	10.71	11.3	12.6	10.8	11.3	12.7	10.7	16.4	18.3	14.6
08/03/01	11.08	11.48	10.87	11.3	12.1	10.8	11.3	12.2	10.8	16.7	18.6	14.9
08/04/01	11.12	11.48	10.87	11.3	11.9	10.8	11.3	12.0	10.8	16.1	17.5	14.3
08/05/01	11.21	11.64	11.02	11.4	12.1	11.0	11.4	12.4	11.0	15.5	17.5	13.4
08/06/01	11.29	11.64	11.02	11.5	12.2	11.2	11.5	12.4	11.0	15.3	16.2	14.0
08/07/01	12.22	16.31	11.17	11.8	12.9	11.3	11.8	14.1	11.3	15.5	17.5	13.7
08/08/01	11.44	11.79	11.33	11.6	12.2	11.3	11.7	12.4	11.3	16.5	17.6	15.4
08/09/01	11.50	11.95	11.33	11.7	12.4	11.3	11.7	12.5	11.3	16.5	18.4	14.6
08/10/01	11.53	11.95	11.33	11.8	12.4	11.5	11.8	12.7	11.4	17.0	18.7	15.2
08/11/01	11.61	11.95	11.33	11.8	12.6	11.5	11.8	12.7	11.4	16.6	18.3	14.8
08/12/01	11.67	12.11	11.48	11.9	12.6	11.5	11.9	12.7	11.4	16.5	18.3	14.8
08/13/01	11.77	12.26	11.48	12.0	12.7	11.5	12.0	12.8	11.4	16.3	17.9	14.4
08/14/01	11.89	12.41	11.64	12.1	13.0	11.6	12.1	13.1	11.6	16.3	18.1	14.6
08/15/01	11.98	12.41	11.79	12.1	12.7	11.8	12.1	13.0	11.7	16.0	17.5	14.4
08/16/01	12.06	12.41	11.79	12.3	13.0	11.9	12.3	13.1	11.7	16.1	17.9	14.3
08/17/01	12.17	12.57	11.95	12.4	13.0	11.9	12.3	13.1	11.9	16.2	17.8	14.6
08/18/01	12.32	12.72	12.11	12.5	13.2	12.1	12.5	13.3	12.0	16.4	18.1	14.6
08/19/01	12.98	16.31	11.17	13.2	14.9	12.2	12.9	14.2	12.2	16.4	17.9	14.6
08/20/01	12.42	15.99	10.56	13.0	14.7	12.2	12.3	15.0	11.4	15.9	17.5	14.3
08/21/01	12.55	13.03	12.26	12.7	13.3	12.2	12.6	13.4	12.2	15.2	16.3	13.8
08/22/01	12.71	13.03	12.41	12.8	13.3	12.4	12.8	13.4	12.4	14.3	15.4	13.1
08/23/01	12.86	13.34	12.57	13.0	13.6	12.6	13.0	13.8	12.5	14.1	15.9	12.3
08/24/01	13.00	13.34	12.72	13.2	13.9	12.7	13.1	14.1	12.7	14.7	16.5	12.7
08/25/01	13.17	13.64	12.88	13.4	14.1	12.9	13.3	14.2	12.8	15.3	17.1	13.5
08/26/01	13.38	13.80	13.03	13.6	14.3	13.2	13.5	14.4	13.0	15.9	17.6	14.1
08/27/01	13.64	14.11	13.34	13.8	14.6	13.3	13.8	14.7	13.3	16.3	17.9	14.6
08/28/01	13.89	14.26	13.49	14.1	14.7	13.6	14.0	14.9	13.4	16.4	17.9	14.6
08/29/01	14.17	14.57	13.80	14.4	15.0	13.9	14.3	15.2	13.8	16.4	17.8	14.8
08/30/01	14.48	14.89	14.11	14.6	15.8	14.1	14.6	15.5	14.1	16.2	17.6	14.6
08/31/01	14.83	15.21	14.42	15.0	15.7	14.4	14.9	15.8	14.2	15.8	17.3	14.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	15.24	15.68	14.73	15.4	16.2	14.7	15.3	16.1	14.7	15.6	17.1	14.0
09/02/01	15.68	16.16	15.21	15.8	16.5	15.2	15.7	16.6	15.0	15.5	16.8	14.0
09/03/01	16.08	16.47	15.84	16.2	16.8	15.8	16.0	16.9	15.6	15.3	16.0	14.3
09/04/01	16.43	16.79	16.16	16.6	17.3	16.2	V	V	V	15.0	16.8	13.2
09/05/01	16.40	17.27	14.73	16.9	17.9	15.8	V	V	V	15.9	17.3	14.4
09/06/01	15.95	17.11	15.36	16.1	17.6	15.2	V	V	V	15.1	16.5	13.5
09/07/01	16.12	17.27	15.52	16.2	17.8	15.2	V	V	V	14.9	16.5	13.2
09/08/01	16.31	17.43	15.68	16.4	17.9	15.4	V	V	V	14.9	16.3	13.2
09/09/01	16.55	17.74	15.99	16.6	18.4	15.7	V	V	V	14.8	16.3	13.2
09/10/01	16.80	18.07	16.16	16.8	18.4	15.8	V	V	V	14.8	16.2	13.2
09/11/01	16.80	17.58	16.47	16.9	17.8	16.3	V	V	V	15.0	15.7	14.4
09/12/01	16.78	17.74	16.47	16.8	18.2	16.0	V	V	V	14.5	15.9	12.9
09/13/01	16.65	17.74	16.16	16.6	18.1	15.8	V	V	V	14.2	15.4	12.6
09/14/01	16.54	17.58	16.16	16.6	18.1	15.7	V	V	V	13.9	15.4	12.3
09/15/01	16.41	17.43	15.99	16.4	17.9	15.7	V	V	V	13.9	15.2	12.3
09/16/01	16.25	17.27	15.84	16.3	17.8	15.5	V	V	V	13.7	14.9	12.1
09/17/01	16.18	17.27	15.84	16.2	17.8	15.5	V	V	V	13.7	15.1	12.1
09/18/01	15.99	17.91	14.73	16.1	17.6	15.5	V	V	V	13.9	15.4	12.4
09/19/01	15.49	17.91	14.57	15.8	17.6	14.7	V	V	V	14.2	15.6	12.7
09/20/01	15.47	17.91	14.57	15.9	17.6	14.7	V	V	V	14.3	15.6	12.7
09/21/01	15.39	17.74	14.42	15.8	17.4	14.7	V	V	V	14.1	15.4	12.7
09/22/01	15.25	17.27	14.26	15.6	17.1	14.6	V	V	V	13.9	15.1	12.6
09/23/01	15.07	16.63	14.26	15.4	16.6	14.4	V	V	V	13.4	14.3	12.3
09/24/01	15.02	16.79	14.11	15.1	16.6	14.3	V	V	V	13.2	14.6	11.7
09/25/01	15.17	17.27	14.26	15.4	16.8	14.7	V	V	V	14.4	15.6	13.4
09/26/01	14.82	17.27	13.80	15.1	16.8	13.9	V	V	V	13.7	14.6	12.3
09/27/01	14.64	16.95	13.80	15.0	16.5	13.9	V	V	V	13.3	14.4	11.8
09/28/01	14.45	16.79	13.49	14.7	16.2	13.6	V	V	V	12.8	13.8	11.5
09/29/01	14.43	16.79	13.49	14.6	16.3	13.6	V	V	V	12.7	14.0	11.2
09/30/01	14.50	16.95	13.64	14.7	16.2	13.6	V	V	V	12.7	13.7	11.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Mono Creek upstream of Diversion			Mono Creek Diversion			Mono Creek downstream of Diversion			Mono Creek upstream of SFSJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	14.58	17.11	13.64	14.8	16.3	13.8	V	V	V	12.8	13.7	11.8
10/02/01	14.41	16.47	13.64	14.9	16.0	13.8	V	V	V	13.1	14.4	11.7
10/03/01	14.47	16.79	13.49	14.6	16.2	13.6	V	V	V	13.2	14.3	11.8
10/04/01	14.36	16.63	13.49	14.8	16.0	13.8	V	V	V	13.0	14.1	11.8
10/05/01	14.19	16.31	13.34	14.5	15.8	13.6	V	V	V	12.8	13.7	11.8
10/06/01	13.90	15.99	13.18	14.2	15.4	13.3	V	V	V	12.0	12.9	10.9
10/07/01	13.70	15.84	12.88	13.8	15.0	12.9	V	V	V	11.2	12.1	10.0
10/08/01	13.59	14.57	13.03	13.8	14.6	13.2	V	V	V	11.0	11.7	10.3
10/09/01	13.38	15.36	12.41	13.3	14.3	12.4	V	V	V	10.6	11.5	9.5
10/10/01	13.09	14.89	12.26	13.0	14.1	12.1	V	V	V	10.0	10.9	8.9
10/11/01				13.0	13.9	12.2	V	V	V	9.7	10.7	8.7
10/12/01							12.8	13.6	12.1	9.8	11.2	8.4
10/13/01							12.2	13.6	11.5	9.7	10.9	8.4
10/14/01							12.3	13.5	11.6	9.5	10.7	8.1
10/15/01							12.4	13.5	11.8	9.8	11.2	8.6
10/16/01							12.4	13.5	11.6	10.1	11.2	8.9
10/17/01							12.2	13.2	11.8	10.1	10.7	9.2
10/18/01							11.8	12.4	11.3	9.8	10.9	8.6
10/19/01							12.0	13.3	10.6	9.8	10.9	8.7
10/20/01							11.0	11.9	10.4	9.8	10.7	8.7
10/21/01							10.9	11.6	10.6	9.3	10.0	8.4
10/22/01							10.5	11.2	10.1	8.5	9.3	7.5
10/23/01							10.6	11.0	10.3	8.6	9.5	7.6
10/24/01							10.3	11.0	9.9			
10/25/01							10.3	10.9	9.8			
10/26/01							10.2	10.9	9.8			
10/27/01							10.1	10.7	9.6			
10/28/01							9.9	10.6	9.5			
10/29/01							9.8	10.4	9.5			
10/30/01							10.3	10.6	9.9			
10/31/01							9.2	9.9	9.0			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00	5.1	6.5	4.2	6.2	7.3	5.4	4.9	5.8	4.0	5.8	6.8	5.0
06/09/00	5.8	8.9	2.9	6.5	9.3	4.3	5.6	8.4	3.3	6.2	8.8	3.9
06/10/00	6.8	9.5	4.4	7.1	9.4	5.0	6.2	9.0	3.9	7.0	9.6	4.7
06/11/00	7.8	11.0	5.1	7.5	9.9	5.4	6.9	9.8	4.5	7.8	10.7	5.4
06/12/00	8.6	11.0	6.4	8.1	9.9	6.5	7.8	10.4	5.6	8.9	11.8	6.7
06/13/00	9.7	12.7	7.5	8.8	11.2	7.0	8.8	11.8	6.5	10.2	13.0	7.8
06/14/00	10.4	13.0	7.9	9.0	11.6	7.0	9.2	12.1	6.7	10.7	13.6	8.1
06/15/00	11.4	13.8	9.0	9.6	11.8	7.8	9.8	12.6	7.3	11.6	14.4	9.0
06/16/00	11.9	13.3	10.2	9.8	11.9	8.2	10.2	13.1	8.1	12.2	14.3	10.2
06/17/00	11.7	14.0	9.9	12.4	14.7	9.9	9.7	12.4	7.6	11.4	13.5	9.4
06/18/00	11.5	13.8	9.6	11.5	13.0	9.9	9.4	12.1	7.5	11.0	13.2	9.1
06/19/00	11.2	13.7	8.9	10.2	12.9	7.9	9.1	11.8	6.7	10.6	13.2	8.1
06/20/00	11.9	14.3	9.6	11.6	13.2	10.1	9.6	12.9	7.3	11.1	13.6	8.8
06/21/00	11.7	13.0	9.9	10.0	11.9	8.1	9.3	11.7	7.3	10.7	12.2	9.0
06/22/00	11.6	13.3	10.1	10.2	13.2	8.1	9.0	11.8	7.5	10.4	12.2	9.0
06/23/00	11.9	14.1	10.2	10.6	13.0	8.4	9.1	12.7	7.3	10.4	12.6	8.8
06/24/00	11.6	13.8	9.6	10.5	14.3	7.8	8.9	13.1	6.9	10.0	12.6	8.2
06/25/00	10.9	12.6	9.6	9.9	12.4	7.8	8.4	11.2	6.9	9.6	11.5	8.2
06/26/00	10.5	11.8	9.0	10.2	13.2	7.8	8.6	11.5	6.9	9.8	11.9	8.1
06/27/00	10.8	12.4	9.0	10.1	12.9	7.8	9.1	12.9	7.0	10.3	12.9	8.2
06/28/00	11.5	13.3	9.9	10.8	13.9	8.4	9.5	11.7	7.6	10.8	12.9	9.1
06/29/00	11.4	13.0	9.8	10.9	13.9	8.4	9.6	12.6	7.6	10.9	13.0	9.0
06/30/00	12.0	14.6	9.9	11.3	14.6	9.0	10.3	14.6	7.8	11.4	13.9	9.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	11.6	14.4	9.5	11.1	14.9	8.2	9.5	13.7	6.7	10.3	12.7	8.1
07/02/00	11.0	14.6	8.7	10.2	14.4	6.8	8.9	13.4	5.9	9.6	12.1	7.1
07/03/00	9.9	11.5	8.7	9.8	12.7	7.4	8.2	11.3	6.1	9.0	10.7	7.3
07/04/00	9.8	14.0	7.0	9.3	13.5	6.1	7.8	12.1	4.7	8.4	11.2	5.7
07/05/00	10.1	14.6	7.2	9.4	12.9	6.4	7.8	12.3	5.0	8.4	10.5	6.1
07/06/00	10.4	15.8	7.3	10.2	14.6	6.8	8.6	13.1	5.5	9.0	11.6	6.5
07/07/00	9.8	17.0	6.4	10.0	14.3	6.7	8.1	12.9	4.8	8.4	10.7	5.9
07/08/00	10.3	19.0	5.8	10.3	14.7	6.8	8.6	13.5	5.0	8.8	11.8	6.1
07/09/00	10.8	17.9	6.2	10.7	14.9	7.4	9.4	14.4	5.8	9.6	12.2	7.0
07/10/00	11.1	15.8	7.5	10.8	14.6	8.1	9.8	14.9	6.7	10.1	12.4	7.8
07/11/00	12.4	19.9	7.9	11.6	16.0	8.4	10.6	15.9	7.2	10.7	13.2	8.4
07/12/00	11.8	19.4	7.2	11.7	16.0	8.5	10.7	15.9	7.3	10.7	12.7	8.5
07/13/00	11.5	19.7	5.9	11.5	15.8	8.2	10.5	15.9	6.7	10.4	12.6	7.9
07/14/00	11.6	20.0	5.3	11.6	16.0	8.2	10.7	16.2	6.5	10.5	13.2	7.8
07/15/00	12.7	18.7	8.1	12.0	15.8	9.1	11.3	16.2	7.8	11.1	13.3	8.8
07/16/00	12.4	16.8	8.9	11.8	14.9	9.6	10.9	14.4	8.2	11.0	12.7	9.3
07/17/00	11.7	19.7	6.2	11.6	15.8	8.7	10.4	15.2	6.9	10.2	12.4	7.9
07/18/00	11.3	20.2	5.4	10.7	15.0	8.5	10.1	15.7	5.9	9.8	12.2	7.1
07/19/00	11.1	20.0	4.7	10.1	13.0	8.1	10.0	14.8	5.9	9.9	12.6	7.0
07/20/00	12.6	21.3	7.0	10.3	12.9	8.5	10.5	15.1	6.7	10.6	13.2	7.8
07/21/00	12.9	21.3	6.5	9.8	11.8	8.4	10.9	15.6	7.0	10.8	13.0	8.1
07/22/00	12.4	21.5	5.4	9.8	12.2	8.2	11.0	15.6	6.9	10.8	13.3	7.8
07/23/00	13.0	21.7	6.4	10.0	12.2	8.4	11.1	15.7	7.2	11.1	13.5	8.2
07/24/00	13.5	21.5	8.2	10.4	13.0	8.7	11.4	15.6	7.9	11.3	13.6	8.8
07/25/00	13.8	21.0	9.0	10.4	12.2	9.1	11.8	15.6	8.7	11.6	13.8	9.4
07/26/00	13.6	21.2	8.9	10.0	11.9	8.7	11.5	15.4	8.6	11.4	13.2	9.4
07/27/00	12.7	20.7	7.5	9.5	11.3	8.4	10.8	14.9	7.0	10.7	13.0	8.1
07/28/00	12.5	20.8	6.2	9.6	11.8	8.2	10.9	15.2	7.0	10.7	13.3	7.9
07/29/00	13.6	21.8	8.2	10.2	12.7	8.5	11.7	15.7	8.1	11.5	13.9	8.8
07/30/00	15.4	22.3	10.2	10.7	12.9	9.3	13.6	18.1	9.9	13.0	15.7	10.4
07/31/00	14.3	17.4	11.6	10.4	11.9	9.4	13.4	17.8	10.4	13.0	15.2	10.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	14.5	17.3	12.7	10.0	11.3	9.3	13.6	17.8	12.1	13.2	14.9	12.1
08/02/00	13.8	16.3	12.1	9.6	10.9	9.0	12.9	16.8	10.6	12.8	14.6	11.2
08/03/00	13.0	14.6	11.8	9.1	9.9	8.7	12.1	14.9	10.6	12.2	13.5	11.2
08/04/00	13.6	17.1	10.6	9.3	11.2	8.2	12.1	17.8	8.9	12.2	14.4	9.8
08/05/00	13.6	16.5	11.2	9.3	10.9	8.4	13.0	18.6	9.5	12.5	14.7	9.9
08/06/00	14.1	17.4	11.3	9.4	11.0	8.5	13.4	18.9	10.6	12.9	15.0	10.9
08/07/00	14.0	17.0	11.5	9.6	11.2	8.5	13.1	18.7	10.3	12.4	14.4	10.4
08/08/00	13.9	17.1	11.2	9.8	11.5	8.5	12.6	18.4	9.3	11.9	13.9	9.6
08/09/00	13.5	16.6	10.9	10.1	12.2	8.8	12.3	18.4	9.0	11.2	12.9	9.1
08/10/00	12.9	16.0	9.9	9.8	11.8	8.5	11.1	16.7	7.5	10.0	11.9	7.6
08/11/00	12.5	15.8	9.3	9.7	11.9	8.4	10.8	16.3	6.7	9.8	12.2	7.0
08/12/00	12.8	16.0	9.6	9.9	12.2	8.5	11.7	18.6	7.8	10.3	12.6	7.3
08/13/00	12.8	16.2	9.6	10.1	12.4	8.7	12.0	19.2	8.2	10.2	12.4	7.4
08/14/00	13.0	16.3	9.9	10.2	12.4	8.8	12.8	20.5	8.6	10.7	13.0	8.2
08/15/00	13.4	16.8	10.6	10.5	12.6	9.3	D	D	D	11.4	13.5	9.3
08/16/00	13.8	17.0	10.9	10.5	12.7	9.3	D	D	D	11.8	14.3	9.6
08/17/00	13.5	15.8	11.2	10.4	12.2	9.4	D	D	D	11.6	13.5	9.9
08/18/00	12.9	16.0	10.1	10.4	12.2	9.1	D	D	D	10.0	11.9	7.6
08/19/00	12.3	15.4	9.3	10.4	12.6	9.1	D	D	D	9.2	11.2	7.0
08/20/00	12.0	15.4	8.9	10.4	12.6	9.1	D	D	D	9.0	11.0	6.4
08/21/00	12.0	15.4	8.9	10.4	12.7	9.0	D	D	D	9.3	11.5	6.8
08/22/00	V	V	V	10.4	12.7	9.0	D	D	D	9.5	11.6	7.1
08/23/00	V	V	V	11.3	14.7	9.1	D	D	D	10.2	12.4	8.1
08/24/00	V	V	V	11.7	14.7	9.8	D	D	D	10.5	12.7	8.1
08/25/00	V	V	V	11.6	12.9	10.9	D	D	D	11.4	12.6	10.5
08/26/00	V	V	V	11.4	13.2	10.4	D	D	D	11.4	13.0	10.1
08/27/00	V	V	V	11.5	14.1	10.1	D	D	D	11.6	13.3	9.6
08/28/00	V	V	V	11.3	12.9	10.2	D	D	D	11.3	12.2	9.9
08/29/00	V	V	V	11.0	11.9	10.5	D	D	D	11.2	11.9	10.7
08/30/00	V	V	V	11.2	12.4	10.4	D	D	D	11.1	12.4	9.9
08/31/00	V	V	V	10.9	13.0	9.6	D	D	D	9.9	11.2	8.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	V	V	V	10.2	10.7	9.6	D	D	D	8.0	9.4	6.5
09/02/00	V	V	V	10.5	12.6	9.4	D	D	D	7.9	9.6	6.4
09/03/00	V	V	V	10.6	12.7	9.3	D	D	D	8.1	9.9	6.1
09/04/00	V	V	V	10.5	12.6	9.1	D	D	D	7.3	9.0	5.3
09/05/00	V	V	V	10.7	13.2	9.1	D	D	D	6.4	8.4	4.0
09/06/00	V	V	V	10.8	13.2	9.1	D	D	D	6.4	8.5	3.9
09/07/00	V	V	V	10.9	13.2	9.3	D	D	D	7.0	9.3	4.5
09/08/00	V	V	V	11.2	13.5	9.8	D	D	D	7.8	9.6	5.9
09/09/00	V	V	V	11.1	13.3	9.6	D	D	D	7.4	9.3	5.0
09/10/00	V	V	V	11.2	13.3	9.8	D	D	D	8.1	10.1	6.1
09/11/00	V	V	V	11.2	13.5	9.8	D	D	D	8.2	10.2	5.7
09/12/00	V	V	V	11.1	13.0	9.8	D	D	D	8.3	9.9	6.2
09/13/00	V	V	V	11.6	13.6	10.4	D	D	D	9.6	11.8	7.8
09/14/00	V	V	V	11.8	13.9	10.4	D	D	D	10.0	11.9	8.2
09/15/00	V	V	V	11.5	13.5	10.1	D	D	D	8.9	10.5	6.7
09/16/00	V	V	V	11.5	13.5	10.1	D	D	D	8.6	10.9	6.5
09/17/00	V	V	V	12.2	14.6	10.5	D	D	D	9.5	11.5	7.6
09/18/00	V	V	V	12.3	15.0	10.5	D	D	D	9.7	11.6	7.8
09/19/00	V	V	V	12.2	14.4	10.2	D	D	D	9.9	11.9	7.8
09/20/00	V	V	V	12.4	14.3	11.0	D	D	D	10.4	12.6	8.5
09/21/00	V	V	V	12.1	13.8	11.2	D	D	D	10.2	11.6	9.0
09/22/00	V	V	V	11.3	12.6	10.5	D	D	D	8.3	9.4	7.3
09/23/00	10.3	13.5	7.6	11.2	12.9	10.1	D	D	D	6.8	8.5	4.7
09/24/00	9.7	13.4	6.9	11.3	13.0	9.9	D	D	D	6.8	8.7	4.7
09/25/00	9.7	13.4	6.9	11.2	13.0	10.1	D	D	D	7.1	9.0	5.1
09/26/00	9.7	13.2	7.0	11.2	12.7	10.1	D	D	D	7.2	8.8	5.4
09/27/00	9.8	13.2	7.0	11.3	12.9	10.1	D	D	D	7.3	9.0	5.6
09/28/00	9.9	13.4	7.3	11.5	13.3	10.2	D	D	D	7.5	9.3	5.7
09/29/00	9.8	13.2	7.2	11.6	13.3	10.4	D	D	D	7.5	9.1	5.9
09/30/00	9.8	13.2	7.0	11.7	13.6	10.4	D	D	D	7.7	9.8	5.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	10.0	13.4	7.5	11.7	13.5	10.5	D	D	D	7.7	9.4	6.2
10/02/00	9.6	12.9	7.0	11.4	13.0	10.2	D	D	D	7.1	9.0	5.1
10/03/00	9.4	12.4	6.7	11.3	12.7	10.2	D	D	D	7.0	8.7	5.1
10/04/00	9.2	12.4	6.7	11.1	12.6	10.1	D	D	D	6.8	8.7	5.1
10/05/00	9.2	12.3	6.7	11.1	12.6	10.1	D	D	D	7.0	8.7	5.4
10/06/00	9.0	11.7	6.7	11.6	13.3	10.5	D	D	D	7.0	8.8	5.1
10/07/00	8.7	10.7	6.5	11.4	13.0	10.2	D	D	D	7.2	9.0	5.4
10/08/00	8.6	11.3	6.2	11.4	12.9	10.2	D	D	D	6.8	8.5	5.3
10/09/00	8.2	10.4	6.1	10.7	11.5	10.2	D	D	D	6.2	7.6	4.8
10/10/00	5.5	7.6	4.2	9.6	10.2	9.3	D	D	D	3.2	5.1	2.5
10/11/00	5.1	7.3	3.3	9.3	9.8	8.8	D	D	D	2.3	2.9	1.2
10/12/00	5.7	8.1	4.2	9.4	10.2	9.0	D	D	D	3.0	4.3	1.8
10/13/00	5.6	8.4	3.7	9.3	10.2	8.7	D	D	D	3.3	5.1	1.5
10/14/00	5.7	8.6	3.7	9.3	10.2	8.5	D	D	D	3.8	5.4	2.3
10/15/00	5.7	8.4	3.7	9.2	10.1	8.5	D	D	D	3.9	5.6	2.3
10/16/00	5.9	8.7	3.9	9.3	10.4	8.5	D	D	D	4.3	6.1	2.6
10/17/00	6.0	8.9	3.9	9.2	10.2	8.4	D	D	D	4.4	6.1	2.8
10/18/00	6.0	7.9	4.2	9.2	10.1	8.5	D	D	D	4.8	6.4	3.1
10/19/00	6.1	8.9	4.2	9.0	9.9	8.4	D	D	D	4.5	6.1	2.9
10/20/00	6.3	9.0	4.4	9.0	9.9	8.4	D	D	D	4.9	6.5	3.4
10/21/00	5.1	6.1	4.4	8.6	9.1	8.4	D	D	D	3.3	4.8	2.0
10/22/00	4.7	7.2	3.0	8.4	9.1	7.8	D	D	D	1.8	3.2	0.6
10/23/00	4.8	7.3	3.1	8.5	9.4	7.9	D	D	D	2.6	4.5	1.2
10/24/00	4.9	7.0	3.1									
10/25/00												
10/26/00												
10/27/00												
10/28/00												
10/29/00												
10/30/00												
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00												
06/15/00												
06/16/00												
06/17/00												
06/18/00												
06/19/00												
06/20/00												
06/21/00												
06/22/00												
06/23/00												
06/24/00												
06/25/00												
06/26/00												
06/27/00	11.1	12.6	9.8	12.2	13.9	10.2						
06/28/00	11.8	12.6	10.9	12.6	13.6	11.3						
06/29/00	11.9	13.2	10.6	12.6	14.5	10.5						
06/30/00	12.3	13.5	11.2	13.0	14.2	11.6						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	11.4	12.4	10.3	11.6	13.0	9.7						
07/02/00	10.6	11.8	9.2	10.9	12.7	8.8						
07/03/00	10.2	11.2	9.0	10.6	12.1	9.0						
07/04/00	9.4	10.6	8.1	9.8	11.3	7.7						
07/05/00	9.2	10.6	7.9	9.9	11.5	7.9						
07/06/00	9.5	10.9	8.1	10.2	11.9	8.2						
07/07/00	9.5	10.7	7.9	10.1	11.8	8.1	8.7	10.3	7.1			
07/08/00	9.4	10.9	7.9	10.1	11.9	7.9	8.8	10.3	7.1			
07/09/00	10.0	11.3	8.6	10.7	12.4	8.8	8.9	10.3	7.2			
07/10/00	10.6	12.0	9.2	11.4	13.0	9.4	9.1	10.6	7.5			
07/11/00	11.3	12.4	9.9	12.0	13.3	10.4	9.7	11.3	8.2			
07/12/00	11.6	12.7	10.3	12.1	13.5	10.4	10.2	11.4	8.8			
07/13/00	11.4	12.6	9.9	11.8	13.3	9.7	10.4	11.7	8.8			
07/14/00	11.4	12.4	9.9	11.7	13.2	9.7	10.1	11.6	8.3			
07/15/00	11.6	12.6	10.3	12.2	13.5	10.5	10.1	11.4	8.5			
07/16/00	11.9	12.6	10.9	12.4	13.5	11.1	10.4	11.7	9.1			
07/17/00	11.4	12.3	10.1	11.7	13.0	9.9	10.5	11.4	9.5			
07/18/00	11.0	12.0	9.5	11.3	12.7	9.1	9.8	11.1	8.3			
07/19/00	10.8	11.8	9.3	11.2	12.7	9.1	9.7	10.9	8.0			
07/20/00	11.1	12.3	9.6	11.5	13.2	9.4	9.7	10.9	8.0			
07/21/00	11.5	12.6	10.1	11.9	13.5	9.7	9.8	11.3	8.2			
07/22/00	11.7	12.6	10.3	12.1	13.6	10.1	10.2	11.6	8.5			
07/23/00	11.8	12.7	10.4	12.0	13.3	10.1	10.5	11.6	9.1			
07/24/00	12.0	12.9	10.7	12.1	13.5	10.2	10.4	11.6	8.9			
07/25/00	12.2	13.0	11.0	12.4	13.8	10.7	10.5	11.7	9.1			
07/26/00	12.2	13.0	11.2	12.4	13.8	10.8	10.7	11.9	9.4			
07/27/00	11.7	12.6	10.4	11.8	13.2	10.1	10.8	11.7	9.5			
07/28/00	11.6	12.6	10.3	11.6	13.2	9.4	10.3	11.4	8.9			
07/29/00	12.0	13.0	10.7	12.2	13.6	10.2	10.0	11.3	8.5			
07/30/00	12.9	13.8	11.8	13.3	14.7	11.6	10.5	11.6	9.2			
07/31/00	13.3	14.3	12.3	13.7	14.9	12.1	11.6	12.6	10.5			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	13.8	14.3	13.4	14.5	15.3	13.5	12.1	13.0	10.9			
08/02/00	13.4	14.0	12.6	13.7	14.7	12.5	12.6	13.1	12.0			
08/03/00	12.9	13.5	12.4	13.3	14.2	12.1	12.1	12.8	11.3			
08/04/00	12.4	13.4	11.2	13.4	14.7	11.8	12.1	13.0	11.3			
08/05/00	12.7	13.5	11.5	13.4	14.9	11.8	12.2	13.0	11.3			
08/06/00	13.1	14.0	12.1	13.6	15.0	12.1	12.1	12.8	10.9			
08/07/00	13.0	13.8	12.0	13.2	14.4	11.6	12.0	12.6	10.9			
08/08/00	12.6	13.5	11.5	12.7	13.9	11.0	11.6	12.5	10.6			
08/09/00	12.2	13.0	11.2	12.1	13.2	10.5	11.1	12.0	10.0	11.8	13.4	10.1
08/10/00	11.5	12.4	10.1	11.1	12.4	9.3	10.7	11.6	9.5	10.9	12.8	8.9
08/11/00	11.1	12.1	9.6	10.9	12.2	9.0	10.0	11.1	8.9	10.5	12.5	8.1
08/12/00	11.2	12.4	9.8	11.0	12.5	9.0	9.6	10.5	8.5	10.7	12.8	8.4
08/13/00	11.3	12.4	9.9	11.1	12.5	9.4	9.6	10.3	8.5	10.7	12.6	8.7
08/14/00	11.5	12.6	10.1	H	H	H	9.7	10.3	8.8	10.9	12.9	8.7
08/15/00	12.0	13.2	10.7	H	H	H	9.6	10.5	8.6	11.5	13.4	9.7
08/16/00	12.3	13.5	11.0	H	H	H	10.2	10.9	9.2	11.8	13.7	9.8
08/17/00	12.4	13.4	11.3	H	H	H	10.4	11.1	9.5	11.7	13.4	10.1
08/18/00	11.6	12.6	10.4	H	H	H	10.6	11.1	9.9	10.6	12.1	8.7
08/19/00	10.8	11.8	9.5	H	H	H	9.7	10.6	8.9	9.7	11.5	7.7
08/20/00	10.4	11.5	9.0	H	H	H	8.7	9.7	7.7	9.6	11.5	7.5
08/21/00	10.3	11.5	9.0	H	H	H	8.4	9.1	7.5	9.6	11.5	7.5
08/22/00	10.4	11.5	9.0	H	H	H	8.4	9.1	7.5	9.8	11.7	7.7
08/23/00	10.8	12.0	9.6	H	H	H	8.5	9.2	7.7	10.3	12.3	8.6
08/24/00	11.0	12.1	9.6	H	H	H	8.9	9.5	8.2	10.6	12.6	8.4
08/25/00	11.9	12.6	11.3	H	H	H	9.1	9.7	8.2	12.1	13.4	10.9
08/26/00	12.2	13.2	11.2	H	H	H	10.4	11.1	9.7	12.4	14.1	11.1
08/27/00	12.3	13.2	11.2	H	H	H	11.2	11.7	10.6	12.3	14.0	10.6
08/28/00	12.2	12.7	11.5	H	H	H	11.0	11.4	10.3	12.1	13.1	10.8
08/29/00	12.2	12.6	12.0	H	H	H	11.0	11.3	10.5	12.1	12.6	11.8
08/30/00	11.9	12.4	11.5	H	H	H	11.4	11.6	11.3	12.0	12.9	11.4
08/31/00	11.1	11.8	10.3	H	H	H	11.1	11.3	10.8	10.8	12.0	9.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	9.8	10.9	8.7	H	H	H	10.1	10.9	9.4	9.5	10.9	8.3
09/02/00	8.9	9.8	8.2	H	H	H	9.1	10.2	8.2	8.8	9.8	7.8
09/03/00	9.1	9.9	8.2	H	H	H	8.1	8.8	7.5	9.1	10.4	7.8
09/04/00	8.4	9.2	7.2	H	H	H	8.3	8.8	7.7	8.2	9.8	6.3
09/05/00	7.7	8.4	6.4	H	H	H	7.4	8.5	6.5	7.3	8.7	5.5
09/06/00	7.4	8.4	5.9	H	H	H	6.7	7.8	5.7	7.0	8.7	4.9
09/07/00	7.8	8.9	6.4	H	H	H	6.3	6.9	5.4	7.4	9.4	5.3
09/08/00	8.4	9.5	7.3	H	H	H	6.4	7.2	5.5	8.2	9.7	6.6
09/09/00	8.4	9.3	7.2	H	H	H	7.0	7.5	6.3	8.0	9.7	6.1
09/10/00	8.7	9.8	7.5	H	H	H	7.0	7.5	6.1	8.5	10.1	6.7
09/11/00	8.9	9.9	7.6	H	H	H	7.2	7.8	6.5	8.6	10.3	6.7
09/12/00	9.0	9.8	7.9	H	H	H	7.4	8.0	6.6	8.6	10.0	6.9
09/13/00	10.1	11.3	9.0	H	H	H	7.4	8.0	6.8	10.0	11.7	8.4
09/14/00	10.7	11.7	9.6	H	H	H	8.5	9.1	8.0	10.5	12.1	8.9
09/15/00	10.3	11.2	9.0	H	H	H	9.0	9.5	8.5	10.2	11.5	8.4
09/16/00	9.9	10.9	8.6	H	H	H	9.0	9.4	8.5	9.4	10.9	7.7
09/17/00	10.3	11.5	9.2	H	H	H	8.5	9.1	7.8	9.9	11.5	8.3
09/18/00	10.6	11.7	9.5	H	H	H	8.6	9.2	8.0	10.2	11.8	8.6
09/19/00	10.8	11.8	9.5	H	H	H	8.9	9.4	8.3	10.4	12.0	8.6
09/20/00	11.1	12.1	9.9	H	H	H	9.1	9.7	8.5	10.9	12.5	9.2
09/21/00	11.1	11.8	10.3	H	H	H	9.5	10.2	8.9	10.9	12.3	9.5
09/22/00	9.9	10.9	9.2	H	H	H	9.7	10.6	9.2	9.6	10.6	9.0
09/23/00	8.4	9.2	7.3	H	H	H	9.1	9.7	8.5	8.0	9.4	6.4
09/24/00	7.9	8.9	6.5	H	H	H	7.3	8.5	6.6	7.4	9.0	5.5
09/25/00	8.2	9.2	7.0	H	H	H	6.8	7.2	6.0	7.8	9.4	6.3
09/26/00	8.3	9.2	7.3	H	H	H	6.7	7.2	6.0	7.9	9.4	6.4
09/27/00	8.4	9.3	7.3	7.7	8.9	6.2	6.9	7.2	6.1	8.1	9.7	6.6
09/28/00	8.6	9.5	7.6	8.0	9.2	6.6	6.9	7.4	6.3	8.4	9.8	6.9
09/29/00	8.7	9.6	7.6	8.0	9.0	6.6	7.1	7.5	6.5	8.4	9.8	7.0
09/30/00	8.9	9.9	7.8	7.9	9.2	6.4	7.4	7.8	6.9	8.5	10.1	6.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	9.0	9.9	8.1	8.0	9.0	6.6	7.5	8.0	6.9	8.4	9.7	7.0
10/02/00	8.6	9.5	7.5	7.6	8.9	6.1	7.4	7.8	6.8	8.0	9.5	6.4
10/03/00	8.4	9.3	7.3	7.5	8.7	5.9	7.1	7.5	6.5	7.8	9.5	6.4
10/04/00	8.3	9.2	7.2	7.4	8.4	5.9	7.0	7.4	6.3	7.8	9.2	6.3
10/05/00	8.3	9.2	7.3	7.4	8.4	6.1	6.8	7.2	6.1	7.9	9.4	6.6
10/06/00	8.3	9.2	7.3	7.4	8.6	5.9	6.7	7.1	6.0	7.9	9.4	6.4
10/07/00	8.5	9.3	7.3	7.6	8.7	6.2	6.8	7.2	6.1	8.2	9.5	6.6
10/08/00	8.4	9.2	7.3	7.4	8.4	6.1	6.9	7.4	6.3	7.9	9.2	6.4
10/09/00	7.9	8.7	7.0	6.9	8.1	5.5	7.0	7.4	6.3	7.5	8.6	6.1
10/10/00	5.1	7.5	4.2	4.4	6.9	3.8	6.6	6.9	6.0	5.1	7.4	4.2
10/11/00	4.0	4.4	3.6	3.7	4.4	3.0	4.5	6.1	3.8	4.1	4.7	3.5
10/12/00	4.3	5.0	3.7	4.1	4.8	3.4	3.7	3.8	3.3	4.5	5.5	3.8
10/13/00	4.3	5.0	3.3	4.0	5.2	2.7	4.0	4.6	3.5	4.4	5.8	3.1
10/14/00	4.7	5.5	3.7	4.1	5.2	3.0	4.0	4.6	3.3	4.8	6.1	3.5
10/15/00	4.9	5.8	4.1	4.3	5.5	3.0	4.1	4.6	3.5	5.0	6.4	3.6
10/16/00	5.2	6.1	4.4	4.7	5.8	3.3	4.0	4.6	3.3	5.5	6.9	4.1
10/17/00	5.5	6.2	4.5	4.9	5.9	3.6	4.3	4.7	3.6	5.7	7.1	4.4
10/18/00	5.7	6.2	5.0	5.2	6.2	3.9	4.6	5.1	4.0	5.9	6.9	4.7
10/19/00	5.6	6.4	4.7	5.1	6.1	3.8	4.8	5.1	4.3	5.9	7.4	4.6
10/20/00	6.0	6.7	5.1	5.3	6.6	4.1	4.7	5.1	4.1	6.1	7.2	4.9
10/21/00	5.4	6.2	4.7	4.8	5.8	3.9	4.7	5.1	4.1	5.5	6.4	4.6
10/22/00	4.1	4.7	3.4	3.3	4.1	2.5	4.5	5.1	4.0	3.7	4.6	2.7
10/23/00	3.8	4.8	3.0	3.1	4.4	1.9	3.4	4.0	3.0	3.7	5.3	2.3
10/24/00	4.4	5.1	3.4	3.7	4.7	2.5	2.7	3.0	2.1	4.5	5.8	3.1
10/25/00	4.8	5.6	4.1	4.3	5.3	3.1	3.1	3.6	2.5	4.9	5.5	3.9
10/26/00	4.5	5.0	3.9	4.1	4.7	3.1	3.6	3.8	3.2	4.5	5.2	3.6
10/27/00	3.7	4.1	3.1	3.2	4.1	2.3	3.3	3.8	2.5	3.6	4.7	2.7
10/28/00	3.8	4.2	3.1	3.4	4.2	2.3	2.4	3.0	2.1	4.2	4.9	3.1
10/29/00	3.6	4.2	3.0	2.9	3.9	1.9	3.0	3.6	2.5	3.7	4.7	2.5
10/30/00	2.4	2.8	2.0	1.6	2.2	0.9	2.5	3.6	1.8	2.3	3.0	1.4
10/31/00	2.0	2.5	1.4	1.0	1.5	0.3	1.4	1.8	1.1	1.9	2.7	1.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Rube Creek		
Date	Mean	Maximum	Minimum
05/01/00			
05/02/00			
05/03/00			
05/04/00			
05/05/00			
05/06/00			
05/07/00			
05/08/00			
05/09/00			
05/10/00			
05/11/00			
05/12/00			
05/13/00			
05/14/00			
05/15/00			
05/16/00			
05/17/00			
05/18/00			
05/19/00			
05/20/00			
05/21/00			
05/22/00			
05/23/00			
05/24/00			
05/25/00			
05/26/00			
05/27/00			
05/28/00			
05/29/00			
05/30/00			
05/31/00			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

Date	Rube Creek		
	Mean	Maximum	Minimum
06/01/00			
06/02/00			
06/03/00			
06/04/00			
06/05/00			
06/06/00			
06/07/00			
06/08/00			
06/09/00			
06/10/00			
06/11/00			
06/12/00			
06/13/00			
06/14/00			
06/15/00			
06/16/00			
06/17/00			
06/18/00			
06/19/00			
06/20/00			
06/21/00			
06/22/00			
06/23/00			
06/24/00			
06/25/00			
06/26/00			
06/27/00			
06/28/00			
06/29/00			
06/30/00			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

Date	Rube Creek		
	Mean	Maximum	Minimum
07/01/00			
07/02/00			
07/03/00			
07/04/00			
07/05/00			
07/06/00			
07/07/00			
07/08/00			
07/09/00			
07/10/00			
07/11/00			
07/12/00			
07/13/00			
07/14/00			
07/15/00			
07/16/00			
07/17/00			
07/18/00			
07/19/00			
07/20/00			
07/21/00			
07/22/00			
07/23/00			
07/24/00			
07/25/00			
07/26/00			
07/27/00			
07/28/00			
07/29/00			
07/30/00			
07/31/00			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Rube Creek		
Date	Mean	Maximum	Minimum
08/01/00			
08/02/00			
08/03/00			
08/04/00			
08/05/00			
08/06/00			
08/07/00			
08/08/00	12.6	14.7	10.8
08/09/00	12.2	14.2	10.4
08/10/00	11.6	13.8	9.6
08/11/00	11.3	13.6	9.0
08/12/00	11.5	13.8	9.1
08/13/00	11.6	13.9	9.4
08/14/00	11.6	13.9	9.4
08/15/00	12.2	14.5	10.2
08/16/00	12.4	14.7	10.4
08/17/00	12.4	14.7	10.7
08/18/00	11.5	13.8	9.6
08/19/00	10.7	13.0	8.5
08/20/00	10.5	13.0	8.3
08/21/00	10.5	12.8	8.3
08/22/00	10.7	13.0	8.5
08/23/00	11.1	13.5	9.3
08/24/00	11.3	13.6	9.1
08/25/00	12.6	14.2	11.1
08/26/00	13.0	15.0	11.4
08/27/00	12.8	14.9	11.1
08/28/00	12.5	13.9	11.1
08/29/00	12.5	13.1	11.9
08/30/00	12.1	13.0	11.4
08/31/00	11.4	13.1	10.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Rube Creek		
Date	Mean	Maximum	Minimum
09/01/00	9.8	11.3	8.7
09/02/00	9.4	10.7	8.5
09/03/00	9.6	11.0	8.2
09/04/00	8.9	10.7	7.3
09/05/00	8.2	9.9	6.3
09/06/00	8.4	10.5	6.3
09/07/00	8.8	10.8	6.8
09/08/00	9.3	11.3	7.4
09/09/00	9.3	11.3	7.3
09/10/00	9.6	11.7	7.7
09/11/00	9.8	11.7	7.9
09/12/00	9.8	11.4	7.9
09/13/00	11.1	12.8	9.6
09/14/00	11.4	13.3	9.7
09/15/00	11.1	13.0	9.6
09/16/00	10.6	12.5	8.5
09/17/00	11.1	13.1	9.3
09/18/00	11.6	13.6	9.9
09/19/00	11.8	13.8	10.0
09/20/00	12.4	14.4	11.0
09/21/00	12.0	13.8	10.7
09/22/00	10.6	11.4	9.7
09/23/00	9.0	10.5	7.4
09/24/00	8.8	10.7	6.8
09/25/00	9.2	11.0	7.4
09/26/00	9.3	11.0	7.6
09/27/00	9.3	11.1	7.7
09/28/00	9.5	11.3	7.9
09/29/00	10.0	12.1	8.3
09/30/00	10.5	12.4	9.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Rube Creek		
Date	Mean	Maximum	Minimum
10/01/00	10.1	11.9	8.3
10/02/00	9.7	11.4	8.0
10/03/00	9.6	11.1	8.0
10/04/00	9.3	11.0	7.6
10/05/00	9.5	11.3	7.9
10/06/00	9.6	11.3	7.8
10/07/00	9.6	11.0	8.1
10/08/00	9.5	11.2	7.8
10/09/00	9.1	10.6	7.6
10/10/00	5.6	7.8	5.0
10/11/00	5.2	5.8	4.8
10/12/00	5.5	6.7	4.8
10/13/00	5.5	6.7	4.2
10/14/00	5.8	7.2	4.7
10/15/00	6.0	7.3	4.5
10/16/00	6.3	7.8	4.8
10/17/00	6.7	8.1	5.1
10/18/00	6.8	7.9	5.6
10/19/00	6.9	8.2	5.5
10/20/00	7.0	8.2	5.6
10/21/00	6.4	7.5	5.1
10/22/00	4.8	6.1	3.9
10/23/00	5.4	7.0	4.0
10/24/00	5.7	7.2	4.4
10/25/00	6.0	7.2	4.8
10/26/00	4.8	6.1	3.6
10/27/00	4.2	5.1	3.1
10/28/00	4.6	5.1	3.9
10/29/00	2.4	4.2	1.7
10/30/00	2.6	3.3	1.8
10/31/00	2.6	3.6	1.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01												
05/02/01												
05/03/01												
05/04/01												
05/05/01												
05/06/01												
05/07/01												
05/08/01												
05/09/01												
05/10/01												
05/11/01												
05/12/01												
05/13/01												
05/14/01												
05/15/01												
05/16/01												
05/17/01												
05/18/01												
05/19/01												
05/20/01	5.7	8.6	3.3									
05/21/01	6.2	8.9	4.1									
05/22/01	6.4	8.6	4.5									
05/23/01	7.0	9.2	5.0									
05/24/01	7.6	9.8	5.6									
05/25/01	8.3	11.4	6.1									
05/26/01	8.4	11.0	6.3									
05/27/01	8.3	10.9	6.3									
05/28/01	8.6	11.2	6.4									
05/29/01	9.1	11.4	7.0									
05/30/01	9.9	12.8	7.5									
05/31/01	10.8	13.4	8.4									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	10.9	13.2	8.9									
06/02/01	10.0	12.0	8.4									
06/03/01	8.8	11.4	6.6									
06/04/01	9.1	11.5	6.9									
06/05/01	9.6	12.1	7.3									
06/06/01	10.5	13.2	8.1									
06/07/01	11.0	13.7	8.9									
06/08/01	10.7	13.4	8.3	10.2	14.7	6.2	8.5	12.3	5.7	9.3	12.0	6.7
06/09/01	10.8	13.5	8.4	10.2	14.7	6.4	8.4	12.5	5.5	9.2	11.8	6.7
06/10/01	10.8	13.5	8.7	10.5	15.2	7.0	8.6	12.6	6.1	9.3	11.8	7.2
06/11/01	10.4	13.2	8.1	9.9	14.2	6.2	8.0	12.0	5.4	8.6	11.0	6.4
06/12/01	10.3	12.6	8.3	10.0	14.7	6.2	8.0	11.7	5.4	8.6	11.0	6.4
06/13/01	9.8	12.8	7.5	9.3	13.8	5.4	7.2	10.8	4.1	7.7	9.8	5.1
06/14/01	10.3	13.7	7.6	9.9	15.2	5.7	7.9	12.3	4.9	8.4	11.2	5.9
06/15/01	10.9	14.4	8.1	10.8	16.5	6.4	8.7	13.4	5.5	9.2	12.0	6.7
06/16/01	11.5	14.9	8.7	11.4	16.9	7.0	9.3	13.9	6.0	9.7	12.3	7.0
06/17/01	11.6	14.9	8.9	11.5	16.8	7.3	9.3	13.9	6.1	9.8	12.1	7.3
06/18/01	11.6	15.1	8.9	11.4	16.9	7.0	9.3	14.0	5.8	9.6	12.3	7.0
06/19/01	11.8	15.4	8.9	11.7	17.4	7.1	9.5	14.3	6.0	9.9	12.4	7.2
06/20/01	12.2	15.6	9.3	12.3	17.9	7.7	10.2	15.1	6.9	10.6	13.0	8.1
06/21/01	12.9	16.7	9.8	12.9	18.5	8.2	10.7	15.9	7.1	11.1	13.7	8.4
06/22/01	13.2	16.0	10.6	13.7	19.5	9.1	11.5	16.4	8.1	11.8	14.3	9.5
06/23/01	13.4	17.1	10.4	13.6	19.3	9.3	11.3	16.4	8.1	11.6	14.0	9.5
06/24/01	12.9	16.3	10.1	12.5	17.9	8.5	10.1	14.3	7.5	10.6	12.6	8.9
06/25/01	12.2	16.2	8.9	11.7	17.6	7.3	9.1	14.2	5.7	9.4	11.8	7.0
06/26/01	12.9	16.8	10.0	11.3	13.6	9.1	9.1	11.9	7.1	9.6	11.2	8.2
06/27/01	12.9	16.7	10.1	11.4	13.9	9.0	10.1	14.8	7.5	10.1	12.0	8.7
06/28/01	12.7	16.8	9.2	10.9	13.8	7.7	10.2	15.8	6.0	10.2	13.0	7.3
06/29/01	13.2	17.3	9.5	11.4	13.2	8.8	10.9	16.4	6.9	10.9	13.5	8.1
06/30/01	13.8	17.9	10.3	11.9	12.9	10.1	11.6	17.2	7.5	11.5	14.0	8.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	14.2	17.9	10.6	12.6	13.6	11.3	11.9	16.9	8.0	11.9	14.4	9.2
07/02/01	14.6	18.7	11.5	13.2	13.8	12.1	12.6	18.8	8.9	12.7	15.4	10.3
07/03/01	13.9	16.2	11.8	13.0	13.8	11.6	11.8	14.5	9.7	12.5	13.7	10.9
07/04/01	13.8	15.9	12.4	13.9	15.2	12.7	12.3	16.6	10.6	13.0	14.3	11.8
07/05/01	14.4	17.5	11.8	13.5	14.9	11.8	12.9	16.4	10.2	13.2	15.2	11.3
07/06/01	13.3	14.3	12.8	14.1	14.9	12.5	11.4	12.2	10.6	12.4	12.9	11.7
07/07/01	12.7	13.7	12.0	12.5	13.5	11.8	10.7	11.7	10.0	11.9	12.6	11.3
07/08/01	12.5	14.9	11.2	12.2	13.8	10.4	10.6	13.1	9.1	11.5	12.7	10.4
07/09/01	11.4	13.4	10.0	11.0	12.4	8.8	9.8	12.6	7.8	10.5	11.8	9.0
07/10/01	12.3	15.9	9.6	10.6	12.1	8.7	10.9	14.8	7.8	11.0	13.0	8.9
07/11/01	12.8	16.5	10.1	12.1	12.9	10.7	11.8	18.5	8.3	11.4	13.2	9.3
07/12/01	12.9	16.8	10.0	11.5	12.7	10.2	11.5	17.5	7.7	11.1	13.4	8.9
07/13/01	12.4	15.2	9.6	10.1	11.3	8.2	10.9	16.2	7.1	10.6	12.7	8.2
07/14/01	12.8	16.8	9.6	10.2	12.1	7.7	11.4	18.8	7.4	10.8	12.7	8.6
07/15/01	12.5	16.5	9.3	9.5	12.1	6.2	10.3	15.6	6.0	9.9	12.0	7.3
07/16/01	11.8	14.8	9.2	9.3	12.7	5.6	10.1	15.5	6.1	9.7	11.8	7.3
07/17/01	11.8	15.6	8.7	D	D	D	10.1	15.1	6.3	9.9	11.8	7.5
07/18/01	12.3	16.2	9.2	D	D	D	10.0	13.4	6.9	10.0	11.8	8.1
07/19/01	12.6	17.0	9.2	D	D	D	10.5	17.0	6.3	10.0	12.0	7.6
07/20/01	12.9	17.1	9.5	D	D	D	10.8	17.4	6.4	10.1	12.3	7.8
07/21/01	13.0	17.3	9.5	D	D	D	11.0	18.0	6.8	10.3	12.4	7.9
07/22/01	13.2	17.5	9.6	D	D	D	11.3	19.3	6.6	10.3	12.4	7.8
07/23/01	12.9	16.5	10.0	D	D	D	11.8	19.1	7.4	10.7	12.9	8.4
07/24/01	13.2	17.5	9.8	D	D	D	D	D	D	10.9	12.9	8.4
07/25/01	14.0	18.1	10.4	D	D	D	D	D	D	11.4	13.5	8.7
07/26/01	14.1	17.0	11.5	D	D	D	D	D	D	12.4	14.6	10.4
07/27/01	14.2	17.9	10.9	D	D	D	D	D	D	11.9	13.8	9.6
07/28/01	14.1	17.9	10.7	D	D	D	D	D	D	11.4	13.4	9.0
07/29/01	14.0	17.8	10.7	D	D	D	D	D	D	11.2	13.4	9.0
07/30/01	13.6	17.5	10.3	D	D	D	D	D	D	10.6	12.4	8.1
07/31/01	13.7	17.6	10.4	D	D	D	D	D	D	11.0	13.2	8.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	14.0	17.9	10.7	D	D	D	D	D	D	11.6	13.8	9.5
08/02/01	14.3	17.8	11.4	D	D	D	D	D	D	12.4	14.3	10.4
08/03/01	14.5	17.9	11.5	D	D	D	D	D	D	12.3	14.4	10.6
08/04/01	13.8	17.1	10.6	D	D	D	D	D	D	10.8	12.4	8.6
08/05/01	13.5	17.1	10.3	D	D	D	D	D	D	10.7	13.2	8.4
08/06/01	13.2	15.9	10.6	D	D	D	D	D	D	11.5	13.8	9.0
08/07/01	13.3	15.2	11.4	D	D	D	D	D	D	12.6	14.6	10.6
08/08/01	14.3	17.5	11.5	D	D	D	D	D	D	13.2	15.4	11.3
08/09/01	14.5	17.1	11.8	D	D	D	D	D	D	12.8	14.6	11.0
08/10/01	14.7	18.1	11.8	D	D	D	D	D	D	13.0	15.2	11.0
08/11/01	14.5	17.6	11.5	D	D	D	D	D	D	12.6	15.1	10.4
08/12/01	14.5	17.5	11.7	D	D	D	D	D	D	12.4	14.9	10.3
08/13/01	14.3	17.3	11.5	D	D	D	D	D	D	12.1	14.3	10.1
08/14/01	14.3	17.3	11.4	D	D	D	D	D	D	12.2	14.4	10.1
08/15/01	14.1	17.0	11.4	D	D	D	D	D	D	12.2	14.3	10.3
08/16/01	14.3	17.5	11.2	D	D	D	D	D	D	12.3	14.6	10.3
08/17/01	14.2	17.1	11.4	D	D	D	D	D	D	12.4	14.6	10.1
08/18/01	14.3	17.1	11.5	D	D	D	D	D	D	12.4	14.7	10.3
08/19/01	14.3	17.0	11.5	D	D	D	D	D	D	12.2	14.6	10.3
08/20/01	13.9	16.8	11.2	D	D	D	D	D	D	11.6	13.7	9.8
08/21/01	13.2	15.9	10.6	D	D	D	D	D	D	10.3	11.8	8.4
08/22/01	12.6	15.1	10.1	D	D	D	D	D	D	10.0	11.8	8.2
08/23/01	12.2	15.2	9.3	D	D	D	D	D	D	9.7	11.7	7.5
08/24/01	12.4	15.4	9.5	D	D	D	D	D	D	10.1	12.1	7.6
08/25/01	12.9	15.9	10.0	D	D	D	D	D	D	11.1	13.4	8.9
08/26/01	13.5	16.2	10.7	D	D	D	D	D	D	11.7	14.0	9.8
08/27/01	13.9	16.5	11.2	D	D	D	D	D	D	12.2	14.6	10.4
08/28/01	13.8	16.2	11.2	D	D	D	D	D	D	12.3	14.4	10.3
08/29/01	13.7	16.2	11.0	D	D	D	D	D	D	12.0	14.0	9.9
08/30/01	13.7	16.3	11.0	D	D	D	D	D	D	11.8	14.0	10.3
08/31/01	13.1	15.9	10.6	D	D	D	D	D	D	11.1	13.2	9.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	12.9	15.6	10.3	D	D	D	D	D	D	10.8	12.7	9.0
09/02/01	12.8	15.2	10.3	D	D	D	D	D	D	10.9	12.6	9.0
09/03/01	12.1	13.7	10.9	D	D	D	D	D	D	10.9	12.1	9.9
09/04/01	12.2	15.1	9.6	D	D	D	D	D	D	10.6	12.6	8.6
09/05/01	12.5	14.9	10.1	D	D	D	D	D	D	10.7	12.6	8.7
09/06/01	11.9	14.8	9.0	D	D	D	D	D	D	9.3	11.2	7.2
09/07/01	12.0	14.9	9.3	D	D	D	D	D	D	9.8	11.8	7.9
09/08/01	11.9	14.6	9.2	D	D	D	D	D	D	9.6	11.8	7.5
09/09/01	11.8	14.4	9.2	D	D	D	D	D	D	9.3	11.5	7.6
09/10/01	11.7	14.3	9.2	D	D	D	D	D	D	9.6	11.8	7.8
09/11/01	11.7	13.4	10.1	D	D	D	D	D	D	10.5	12.1	9.3
09/12/01	11.4	13.8	8.9	D	D	D	D	D	D	9.1	10.7	7.5
09/13/01	10.8	13.4	8.1	D	D	D	D	D	D	8.2	10.1	5.9
09/14/01	10.6	13.2	8.0	D	D	D	D	D	D	8.2	10.4	6.1
09/15/01	10.6	13.1	7.8	D	D	D	D	D	D	8.3	10.3	6.2
09/16/01	10.4	12.9	7.8	D	D	D	D	D	D	8.2	10.1	6.2
09/17/01	10.5	13.5	7.8	D	D	D	D	D	D	8.5	10.3	6.7
09/18/01	10.8	13.8	8.1	D	D	D	D	D	D	8.9	10.9	7.2
09/19/01	10.8	13.2	8.4	D	D	D	D	D	D	9.3	11.0	7.5
09/20/01	11.2	14.1	8.6	D	D	D	D	D	D	9.4	11.2	7.8
09/21/01	11.2	14.0	8.6	D	D	D	D	D	D	9.3	11.2	7.5
09/22/01	11.0	13.7	8.3	D	D	D	D	D	D	9.2	11.2	7.3
09/23/01	10.6	12.6	8.6	D	D	D	D	D	D	8.9	10.7	7.5
09/24/01	10.4	13.5	7.8	D	D	D	D	D	D	8.8	11.2	6.7
09/25/01	11.5	14.1	9.5	D	D	D	D	D	D	10.0	11.2	9.0
09/26/01	10.4	12.9	7.8	D	D	D	D	D	D	8.5	10.4	6.5
09/27/01	10.2	13.1	7.8	D	D	D	D	D	D	8.7	10.6	7.2
09/28/01	9.6	12.0	7.2	D	D	D	D	D	D	7.8	9.5	5.9
09/29/01	9.6	12.3	7.2	D	D	D	D	D	D	8.0	9.9	6.2
09/30/01	9.2	10.9	7.2	D	D	D	D	D	D	8.1	9.9	6.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Boulder Creek			Tombstone Creek			South Slide Creek			North Slide Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	9.3	11.0	7.5	D	D	D	D	D	D	8.4	10.1	6.9
10/02/01	9.7	12.3	7.3	D	D	D	D	D	D	8.6	10.6	6.9
10/03/01	10.1	12.4	7.8	D	D	D	D	D	D	8.9	10.6	7.2
10/04/01	10.2	12.4	8.0	D	D	D	D	D	D	8.9	10.4	7.3
10/05/01	10.1	12.4	8.1	D	D	D	D	D	D	8.6	9.9	7.3
10/06/01	9.6	11.7	7.5	D	D	D	D	D	D	7.5	8.9	6.1
10/07/01	8.8	10.7	6.7	D	D	D	D	D	D	6.7	8.2	5.0
10/08/01	8.6	10.4	6.7	D	D	D	D	D	D	7.2	8.4	5.9
10/09/01	8.4	10.6	6.3	D	D	D	D	D	D	6.1	7.2	4.4
10/10/01	7.7	10.0	5.6	D	D	D	D	D	D	5.5	7.2	3.6
10/11/01	7.3	9.0	5.6	D	D	D	D	D	D	6.1	7.8	4.4
10/12/01	7.8	10.4	5.3	D	D	D	D	D	D	6.2	8.4	4.2
10/13/01				D	D	D	D	D	D	5.9	7.8	3.9
10/14/01				D	D	D	D	D	D	5.8	7.8	3.9
10/15/01				D	D	D	D	D	D	6.3	8.1	4.7
10/16/01				D	D	D	D	D	D	6.3	7.9	4.7
10/17/01				D	D	D	D	D	D	6.0	7.3	4.4
10/18/01				D	D	D	D	D	D	5.8	7.5	4.2
10/19/01				D	D	D	D	D	D	5.9	7.5	4.2
10/20/01				D	D	D	D	D	D	5.8	7.3	4.2
10/21/01				D	D	D	D	D	D	5.7	7.5	4.1
10/22/01				D	D	D	D	D	D	4.8	6.2	3.3
10/23/01												
10/24/01												
10/25/01												
10/26/01												
10/27/01												
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	6.17	8.24	4.05	5.0	6.2	3.9				6.3	9.0	3.9
05/02/01	5.51	6.86	4.05	4.6	5.3	3.8				5.1	6.6	3.8
05/03/01	4.15	5.92	2.32	3.8	5.2	2.5				3.6	5.9	1.5
05/04/01	4.62	6.70	2.48	4.1	5.8	2.7				4.4	7.2	1.9
05/05/01	5.67	7.78	3.58	5.0	6.9	3.4				5.9	8.6	3.4
05/06/01	6.41	8.56	4.21	5.7	7.5	4.1				6.8	9.5	4.4
05/07/01	6.82	8.71	4.83	6.2	7.8	4.5				7.3	10.1	5.0
05/08/01	6.94	9.02	4.99	6.3	8.0	4.7				7.3	10.0	5.2
05/09/01	7.03	9.02	4.99	6.4	8.1	4.8				7.2	9.8	4.8
05/10/01	7.33	9.33	5.30	6.8	8.3	5.2				7.5	10.3	5.0
05/11/01	7.88	9.63	6.08	7.3	8.9	5.6				7.8	10.3	5.8
05/12/01	7.07	8.40	6.23	6.7	7.3	6.1				7.2	8.3	6.2
05/13/01	6.37	7.17	5.46	6.3	7.0	5.3				6.6	7.8	5.5
05/14/01	6.72	8.86	4.52	6.8	9.0	4.5				6.9	9.7	4.4
05/15/01	8.75	10.72	6.86	8.0	10.1	5.9				8.1	10.6	5.8
05/16/01	10.15	12.12	8.40	8.8	10.7	7.0				9.3	11.5	7.0
05/17/01	10.26	11.96	8.40	8.8	10.7	7.0				8.7	10.9	6.2
05/18/01	9.93	11.18	8.40	8.6	10.4	6.9				8.2	10.0	6.4
05/19/01	9.80	11.65	7.94	8.8	10.9	6.7				8.5	11.1	6.1
05/20/01	10.24	12.12	8.09	9.4	11.5	7.2				9.0	11.7	6.2
05/21/01	10.89	12.58	9.02	10.0	12.1	7.8				9.6	11.8	7.2
05/22/01	11.47	12.89	9.79	10.5	12.1	8.7				10.3	12.3	8.0
05/23/01	11.26	12.27	9.94	10.6	12.6	8.7				10.3	12.3	8.3
05/24/01	11.38	12.89	9.63	10.7	12.6	8.7				10.3	12.3	8.3
05/25/01	11.63	13.04	9.94	10.8	12.7	8.9				10.3	12.3	8.1
05/26/01	M	M	M	10.1	12.0	8.3				9.5	11.2	7.6
05/27/01	M	M	M	9.8	11.8	7.8				9.1	11.1	7.0
05/28/01	M	M	M	9.7	11.5	7.8				9.1	10.9	7.2
05/29/01	M	M	M	10.2	12.1	8.0				9.6	11.7	7.5
05/30/01	M	M	M	10.9	12.9	8.6				10.4	12.4	8.1
05/31/01	M	M	M	11.6	13.7	9.3				11.1	12.9	9.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	M	M	M	11.6	13.4	9.8				11.1	12.9	9.2
06/02/01	M	M	M	10.3	11.8	8.7				9.6	10.7	8.3
06/03/01	M	M	M	8.7	10.4	6.6				7.8	9.5	5.6
06/04/01	M	M	M	9.1	11.0	7.0				8.3	10.3	6.2
06/05/01	M	M	M	9.3	11.0	7.3				8.7	10.4	6.7
06/06/01	M	M	M	10.2	12.3	8.0				9.7	12.0	7.5
06/07/01	M	M	M	10.8	12.6	8.9				10.4	12.1	8.4
06/08/01	M	M	M	10.5	12.4	8.3				9.8	11.8	7.6
06/09/01	M	M	M	10.5	12.1	8.4				9.8	11.6	7.8
06/10/01	M	M	M	10.5	12.1	8.7				9.8	11.6	7.9
06/11/01	10.21	11.21	8.88	10.1	11.7	8.1				9.3	11.0	7.3
06/12/01	10.04	11.05	8.73	10.3	13.7	8.3				9.4	11.2	7.4
06/13/01	9.22	10.43	7.64	9.5	11.1	7.5				8.4	10.2	6.2
06/14/01	9.27	10.74	7.64	9.7	11.5	7.5				8.8	10.8	6.7
06/15/01	9.85	11.36	8.27	10.3	12.2	8.1				9.7	11.6	7.6
06/16/01	10.29	11.82	8.57	10.8	12.6	8.6				10.0	12.1	7.6
06/17/01	10.61	11.82	9.19	11.1	12.6	9.2				10.2	11.8	8.4
06/18/01	10.45	11.67	8.88	10.8	12.5	8.8				9.8	11.6	7.6
06/19/01	10.61	11.82	9.03	11.0	12.6	8.9				10.2	12.1	8.1
06/20/01	11.04	12.29	9.50	11.6	13.2	9.5				10.8	12.9	8.7
06/21/01	11.58	12.76	10.12	12.1	13.7	10.2	11.5	12.5	11.2	11.4	13.3	9.3
06/22/01	12.21	13.22	10.90	12.9	14.3	11.1	11.6	12.3	11.4	12.0	13.9	10.1
06/23/01	12.38	13.38	11.21	12.8	14.3	11.2	11.9	12.5	11.5	12.1	13.9	10.4
06/24/01	11.68	12.60	10.59	11.9	13.1	10.5	12.1	12.6	11.9	11.0	12.5	9.6
06/25/01	10.57	11.51	9.19	10.7	12.2	8.8	12.0	12.8	11.4	9.8	11.6	7.8
06/26/01	10.71	11.36	9.97	11.2	12.5	10.0	12.2	12.8	11.9	10.4	11.6	9.1
06/27/01	11.10	12.29	10.12	11.7	12.9	10.6	12.1	12.8	11.9	10.9	12.7	9.6
06/28/01	10.97	12.13	9.50	11.4	13.1	9.2	11.9	12.6	11.4	10.7	12.9	8.4
06/29/01	11.45	12.60	9.97	12.0	13.6	10.0	12.1	12.8	11.5	11.3	13.3	9.1
06/30/01	12.09	13.38	10.74	12.6	14.0	10.6	12.3	12.9	12.0	11.8	13.8	9.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	12.48	13.68	11.05	12.8	14.3	11.1	12.4	13.1	12.2	12.3	14.2	10.2
07/02/01	12.87	14.14	11.82	13.4	15.0	11.5	12.7	13.4	12.5	12.9	15.0	10.8
07/03/01	12.77	13.07	12.13	13.8	14.5	12.5	12.9	13.3	12.6	13.4	14.4	12.1
07/04/01	13.02	13.53	12.44	14.1	14.8	13.4	13.3	13.7	12.9	13.7	14.6	12.9
07/05/01	13.09	13.83	12.29	14.1	15.3	12.8	13.8	14.3	13.6	13.8	15.2	12.4
07/06/01	12.95	13.38	12.76	13.9	14.2	13.6	13.7	13.7	13.6	13.5	13.9	13.0
07/07/01	12.42	12.76	12.13	13.3	13.6	12.9	13.8	14.0	13.4	12.8	13.2	12.4
07/08/01	11.96	12.44	11.21	12.9	14.0	11.5	13.2	13.7	12.5	12.3	13.6	10.8
07/09/01	11.35	11.98	10.59	11.8	13.7	10.2	13.7	14.3	13.4	11.7	13.2	10.1
07/10/01	11.16	11.82	10.28	10.8	12.6	8.9	13.5	14.0	13.3	11.5	13.0	9.8
07/11/01	11.51	12.44	10.28	12.0	13.6	10.5	13.4	14.0	13.1	11.8	13.5	10.2
07/12/01	11.51	12.60	10.28	12.0	13.6	10.3	13.1	13.9	12.2	11.5	13.3	9.8
07/13/01	11.29	12.13	10.12	11.7	12.9	10.0	13.3	14.0	12.6	11.1	12.7	9.3
07/14/01	11.52	12.60	10.28	11.9	13.2	10.2	13.2	14.0	12.6	11.3	13.0	9.6
07/15/01	11.04	12.13	9.66	11.3	12.6	9.4	12.9	14.0	12.0	10.5	12.2	8.5
07/16/01	10.75	11.82	9.50	11.1	12.3	9.4	12.8	13.9	12.0	10.3	11.9	8.5
07/17/01	10.68	11.82	9.34	11.2	12.8	9.4	12.7	13.7	11.9	10.4	12.2	8.4
07/18/01	11.01	12.29	9.81	11.6	13.1	10.0	12.6	13.7	11.9	10.9	12.7	9.0
07/19/01	11.03	12.29	9.81	11.4	12.8	9.8	12.5	13.6	11.7	10.8	12.5	9.0
07/20/01	11.03	12.29	9.66	11.4	12.9	9.7	12.5	13.7	11.7	10.8	12.7	8.8
07/21/01	11.01	12.29	9.66	11.5	12.9	9.7	12.5	13.9	11.7	10.8	12.5	9.0
07/22/01	11.04	12.29	9.66	11.4	12.8	9.5	12.5	14.2	11.5	10.7	12.5	8.8
07/23/01	11.24	12.44	9.97	11.7	13.1	9.8	12.5	14.8	11.5	10.9	12.9	9.0
07/24/01	11.58	12.91	10.12	12.0	13.4	10.2	F	F	F	11.3	13.3	9.3
07/25/01	12.02	13.22	10.59	12.7	14.0	10.9	F	F	F	11.9	13.9	9.6
07/26/01	12.88	14.14	11.67	13.7	15.1	12.2	F	F	F	13.1	14.9	11.3
07/27/01	12.98	14.14	11.82	13.1	14.3	11.4	F	F	F	12.5	14.1	10.5
07/28/01	12.66	13.68	11.36	12.6	13.9	10.8	F	F	F	11.9	13.6	10.1
07/29/01	12.42	13.53	11.21	12.3	13.7	10.5	F	F	F	11.6	13.3	9.8
07/30/01	11.95	12.91	10.74	11.9	13.1	10.2	F	F	F	11.2	12.7	9.4
07/31/01	11.92	13.07	10.59	12.2	13.7	10.5	F	F	F	11.5	13.2	9.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	12.22	13.38	10.90	12.6	14.0	10.8	F	F	F	11.7	13.5	9.9
08/02/01	12.74	13.83	11.51	13.1	14.5	11.5	F	F	F	12.5	14.1	10.8
08/03/01	13.03	14.14	11.98	13.4	14.8	11.9	F	F	F	12.7	14.1	11.3
08/04/01	12.36	13.22	11.21	12.2	13.2	10.6	F	F	F	11.6	12.7	10.1
08/05/01	12.09	13.22	10.90	11.8	13.4	9.8	F	F	F	11.1	12.7	9.3
08/06/01	12.20	12.91	11.36	12.1	13.2	10.3	F	F	F	11.7	13.2	9.9
08/07/01	12.81	13.83	11.82	13.1	14.5	11.5	F	F	F	12.9	14.6	11.3
08/08/01	13.43	14.30	12.60	13.8	15.1	12.5	F	F	F	13.5	14.9	12.1
08/09/01	13.59	14.61	12.60	13.8	15.1	12.2	12.2	13.6	11.5	13.4	14.9	11.9
08/10/01	13.71	14.77	12.76	13.9	15.3	12.3	12.1	13.9	11.4	13.4	14.9	11.9
08/11/01	13.47	14.30	12.44	13.4	14.6	11.9	11.7	13.4	10.9	12.8	14.6	10.8
08/12/01	13.36	14.14	12.44	13.1	14.3	11.5	11.6	13.4	10.8	12.6	14.1	10.8
08/13/01	13.26	14.14	12.29	12.9	14.2	11.2	11.3	13.1	10.5	12.4	14.1	10.5
08/14/01	13.28	14.14	12.44	12.9	14.3	11.4	11.1	12.5	10.3	12.4	14.1	10.7
08/15/01	13.16	13.99	12.29	12.8	14.0	11.2	11.0	12.3	10.2	12.3	13.8	10.7
08/16/01	13.30	14.14	12.29	12.8	14.2	11.2	11.0	12.8	10.2	12.3	13.9	10.7
08/17/01	13.28	14.14	12.29	12.8	14.0	11.1	11.0	12.6	10.0	12.4	14.1	10.5
08/18/01	13.45	14.30	12.44	13.1	14.3	11.5	11.3	13.1	10.3	12.7	14.2	10.8
08/19/01	13.41	14.30	12.44	12.9	14.2	11.4	11.2	13.3	10.3	12.5	14.2	10.7
08/20/01	13.00	13.83	11.82	12.4	13.6	10.9	10.8	12.8	10.0	12.0	13.5	10.4
08/21/01	12.35	12.76	11.51	11.6	12.5	10.3	10.2	11.5	9.5	11.1	12.2	9.6
08/22/01	11.73	12.29	10.90	11.0	12.0	9.7	9.5	10.8	8.9	10.5	11.9	9.0
08/23/01	11.37	12.13	10.28	10.7	11.9	8.9	9.2	10.9	8.3	10.2	11.9	8.4
08/24/01	11.43	12.29	10.28	11.0	12.3	9.1	9.4	11.4	8.4	10.5	12.4	8.4
08/25/01	11.85	12.76	10.74	11.5	12.8	9.7	10.0	12.3	8.9	11.2	12.9	9.3
08/26/01	12.37	13.38	11.36	12.0	13.4	10.3	10.4	12.5	9.2	11.7	13.5	9.9
08/27/01	12.77	13.83	11.67	12.5	13.7	10.9	10.8	13.3	9.5	12.2	13.9	10.5
08/28/01	12.95	13.83	11.82	12.5	13.7	10.8	11.1	13.6	9.8	12.3	14.1	10.4
08/29/01	13.09	13.83	12.13	12.6	13.6	11.2	11.1	12.9	9.8	12.4	13.6	10.8
08/30/01	12.83	13.53	11.98	12.4	13.6	11.1	10.9	12.5	10.0	12.1	13.5	10.5
08/31/01	12.46	13.22	11.51	11.8	12.8	10.3	10.6	12.5	9.5	11.5	12.9	10.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	12.22	12.91	11.21	11.5	12.6	9.8	10.2	12.0	9.1	11.1	12.7	9.4
09/02/01	12.13	12.91	11.21	11.4	12.5	9.8	10.0	11.5	8.9	11.3	12.9	9.4
09/03/01	12.13	12.44	11.67	11.8	12.5	10.9	10.3	10.9	9.7	11.7	12.7	10.5
09/04/01	11.69	12.76	10.59	11.4	12.6	9.7	10.4	11.9	9.5	11.4	13.0	9.8
09/05/01	12.01	12.76	11.21	11.7	12.8	10.5	10.5	12.2	9.7	11.6	12.9	10.4
09/06/01	11.20	11.98	10.12	10.3	11.4	8.8	9.6	11.1	8.6	10.2	11.6	8.5
09/07/01	11.07	11.98	9.97	10.3	11.5	8.6	9.2	11.1	8.3	10.2	11.8	8.4
09/08/01	11.03	11.82	9.97	10.1	11.4	8.4	9.0	10.8	8.0	10.0	11.5	8.2
09/09/01	10.99	11.82	9.97	10.0	11.2	8.4	8.9	10.8	7.8	9.9	11.5	8.4
09/10/01	10.99	11.82	9.97	10.0	11.2	8.4	8.8	10.6	7.8	10.1	11.6	8.4
09/11/01	11.34	11.82	10.90	10.7	11.5	9.8	9.5	10.6	8.8	10.8	11.9	9.9
09/12/01	10.78	11.51	9.81	9.9	10.9	8.4	9.1	10.5	8.3	10.0	11.2	8.7
09/13/01	10.18	10.90	9.03	9.1	10.0	7.5	8.5	10.3	7.7	9.1	10.5	7.4
09/14/01	9.94	10.90	8.73	8.8	10.0	7.1	8.2	10.2	7.2	8.9	10.4	7.1
09/15/01	9.88	10.74	8.73	8.7	9.8	7.2	8.0	10.2	6.9	8.9	10.4	7.3
09/16/01	9.69	10.43	8.57	8.7	9.7	7.2	7.9	10.0	6.9	8.9	10.4	7.3
09/17/01	9.70	10.59	8.57	8.8	10.0	7.4	8.0	9.7	7.1	9.1	10.5	7.4
09/18/01	9.90	10.90	8.88	9.2	10.3	7.7	8.2	10.2	7.2	9.4	10.8	7.8
09/19/01	10.19	11.05	9.19	9.4	10.6	8.1	8.5	10.5	7.4	9.6	11.0	8.1
09/20/01	10.39	11.36	9.34	9.7	10.9	8.4	8.7	10.2	7.7	9.8	11.3	8.2
09/21/01	10.41	11.36	9.34	9.6	10.8	8.1	8.7	10.3	7.7	9.6	11.2	7.9
09/22/01	10.37	11.21	9.34	9.5	10.6	8.1	8.7	10.0	7.8	9.6	10.8	8.1
09/23/01	10.22	10.90	9.34	9.3	10.2	7.8	8.5	9.5	7.7	9.3	10.5	7.9
09/24/01	10.13	11.21	8.88	9.0	10.3	7.2	8.2	9.1	7.2	8.9	10.2	7.3
09/25/01	11.09	11.82	10.59	10.4	11.4	9.5	9.1	10.3	8.3	10.4	11.8	9.4
09/26/01	10.21	11.05	9.03	9.2	10.0	7.7	8.9	10.3	8.0	9.3	10.5	7.6
09/27/01	10.01	10.90	9.03	8.7	9.8	7.2	8.3	9.8	7.2	9.0	10.5	7.4
09/28/01	9.47	10.28	8.27	8.3	9.4	6.9	7.9	9.5	6.9	8.6	9.9	7.1
09/29/01	9.35	10.43	8.11	8.2	9.4	6.7	7.6	8.8	6.6	8.6	10.1	7.1
09/30/01	9.41	10.43	8.27	8.2	9.4	6.7	7.6	8.8	6.6	8.7	10.2	7.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Warm Creek			Rattlesnake Creek			Hoffman Creek			Four Forks Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	9.77	10.59	8.73	8.6	9.7	7.2	8.0	9.2	7.2	9.1	10.2	7.9
10/02/01	9.92	10.90	8.73	8.9	10.0	7.4	8.4	9.5	7.5	9.1	10.7	7.8
10/03/01	10.12	11.05	9.03	9.1	10.2	7.7	8.7	10.0	7.7	9.4	10.8	8.1
10/04/01	10.26	11.21	9.19	9.3	10.2	7.8	8.8	10.0	7.8	9.6	10.8	8.4
10/05/01	10.01	10.74	9.19	9.0	9.8	7.8	8.8	10.0	8.1	9.4	10.5	8.4
10/06/01	9.19	9.97	8.27	8.1	9.1	6.9	8.0	9.4	7.2	8.5	9.6	7.3
10/07/01	8.40	9.19	7.33	7.3	8.4	6.0	7.0	8.6	6.1	7.5	8.7	6.1
10/08/01	8.43	9.19	7.64	7.6	8.6	6.6	7.0	8.0	6.3	7.9	9.0	6.8
10/09/01	8.00	8.73	7.02	7.0	7.7	5.3	6.7	8.1	5.8	7.4	8.4	6.1
10/10/01	7.23	8.11	5.93	6.2	7.1	4.6	6.1	7.5	5.3	6.5	7.8	5.0
10/11/01				6.4	7.5	5.0	6.0	7.2	5.2	6.8	8.1	5.6
10/12/01				6.3	7.5	4.7	6.0	7.4	5.0	6.8	8.2	5.3
10/13/01				6.0	7.1	4.4	5.8	7.4	4.9	6.5	8.1	4.8
10/14/01				5.8	7.1	4.1	5.7	7.1	4.7	6.5	7.9	5.0
10/15/01				6.3	7.4	4.7	5.9	7.4	5.0	6.9	8.2	5.6
10/16/01				6.5	7.5	5.0	6.0	7.5	5.2	7.0	8.2	5.7
10/17/01				6.5	7.2	5.2	6.0	7.2	5.3	6.9	8.1	5.7
10/18/01				6.1	7.1	4.7	5.8	7.2	5.0	6.6	7.9	5.3
10/19/01				6.2	7.2	4.7	5.7	6.6	4.9	6.7	7.8	5.4
10/20/01				6.2	7.1	4.7	5.8	7.1	5.0	6.7	7.8	5.4
10/21/01				5.7	6.4	4.6	5.6	7.1	4.9	6.5	7.6	5.3
10/22/01				5.2	6.3	3.9	5.0	6.0	4.4	5.9	7.1	4.6
10/23/01				5.3	6.4	4.1	4.9	5.8	4.3	6.1	7.4	5.0
10/24/01				4.8	6.0	3.5	4.6	5.5	3.8	5.5	6.8	4.0
10/25/01							4.3	5.3	3.6	5.4	6.7	4.0
10/26/01							4.2	5.2	3.5			
10/27/01							4.2	5.0	3.6			
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Rube Creek		
Date	Mean	Maximum	Minimum
05/01/01	3.7	6.2	2.3
05/02/01	3.4	5.1	2.5
05/03/01	3.0	5.0	1.4
05/04/01	3.7	6.1	1.8
05/05/01	4.4	7.0	2.5
05/06/01	4.9	7.6	3.1
05/07/01	5.2	8.1	3.4
05/08/01	5.4	8.2	3.6
05/09/01	5.5	8.2	3.6
05/10/01	5.9	8.7	3.7
05/11/01	6.2	9.0	4.2
05/12/01	5.7	6.7	4.8
05/13/01	5.7	7.3	4.2
05/14/01	6.1	8.7	3.7
05/15/01	6.7	9.0	4.8
05/16/01	7.7	10.1	5.6
05/17/01	7.6	9.9	5.3
05/18/01	7.3	8.7	5.6
05/19/01	7.8	10.2	5.5
05/20/01	8.5	10.9	6.1
05/21/01	9.2	11.3	7.2
05/22/01	9.6	11.6	7.2
05/23/01	10.0	12.0	7.8
05/24/01	10.3	12.1	8.2
05/25/01	10.3	12.3	8.2
05/26/01	9.6	11.5	7.6
05/27/01	9.4	11.3	7.3
05/28/01	9.3	11.0	7.5
05/29/01	9.7	11.8	7.8
05/30/01	10.8	12.7	9.0
05/31/01	11.4	13.3	9.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Rube Creek		
Date	Mean	Maximum	Minimum
06/01/01	11.4	13.2	9.6
06/02/01	10.2	11.8	8.9
06/03/01	8.5	10.1	6.5
06/04/01	8.7	10.6	6.7
06/05/01	8.9	10.7	7.2
06/06/01	9.8	12.0	7.6
06/07/01	10.7	12.6	8.7
06/08/01	10.4	12.3	8.2
06/09/01	10.3	12.4	8.2
06/10/01	10.2	12.8	8.3
06/11/01	9.8	12.1	7.7
06/12/01	9.8	12.0	7.8
06/13/01	9.1	11.4	6.9
06/14/01	9.4	12.0	7.2
06/15/01	10.1	12.8	7.8
06/16/01	10.5	13.2	8.1
06/17/01	10.7	12.6	8.9
06/18/01	10.5	13.1	8.1
06/19/01	10.8	13.4	8.4
06/20/01	11.4	14.0	9.0
06/21/01	11.9	14.5	9.7
06/22/01	12.4	15.1	10.3
06/23/01	12.5	15.1	10.6
06/24/01	11.5	13.7	10.0
06/25/01	10.4	12.8	8.3
06/26/01	11.0	12.8	9.5
06/27/01	11.3	13.8	9.8
06/28/01	11.0	13.7	8.6
06/29/01	11.6	14.3	9.2
06/30/01	12.2	14.8	10.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

Date	Rube Creek		
	Mean	Maximum	Minimum
07/01/01	12.7	15.4	10.4
07/02/01	13.4	16.2	11.1
07/03/01	13.3	14.8	12.1
07/04/01	13.5	14.8	12.6
07/05/01	14.0	16.4	12.1
07/06/01	13.4	14.1	12.9
07/07/01	12.6	12.9	12.1
07/08/01	12.5	14.9	10.7
07/09/01	12.5	15.1	10.9
07/10/01	12.1	14.0	10.4
07/11/01	12.5	14.9	10.9
07/12/01	12.0	14.5	10.0
07/13/01	11.6	13.8	9.7
07/14/01	11.8	14.3	10.0
07/15/01	11.2	13.7	9.2
07/16/01	11.0	13.4	9.2
07/17/01	11.1	13.7	9.0
07/18/01	11.4	14.0	9.3
07/19/01	11.3	13.8	9.3
07/20/01	11.4	14.0	9.3
07/21/01	11.4	14.0	9.5
07/22/01	11.3	14.1	9.2
07/23/01	11.6	14.1	9.5
07/24/01	12.3	15.1	10.1
07/25/01	12.9	15.6	10.6
07/26/01	13.7	16.2	11.8
07/27/01	13.4	15.9	11.2
07/28/01	13.0	15.6	10.7
07/29/01	12.6	15.2	10.4
07/30/01	12.2	14.5	10.3
07/31/01	12.3	14.9	10.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Rube Creek		
Date	Mean	Maximum	Minimum
08/01/01	12.6	15.2	10.4
08/02/01	13.2	15.7	11.2
08/03/01	13.4	15.9	11.5
08/04/01	12.6	14.8	10.6
08/05/01	12.1	14.8	9.7
08/06/01	12.8	15.4	10.4
08/07/01	14.0	16.5	12.0
08/08/01	14.5	16.8	12.6
08/09/01	14.3	16.7	12.4
08/10/01	14.2	16.7	12.3
08/11/01	13.8	16.2	11.5
08/12/01	13.8	16.0	11.8
08/13/01	13.5	15.9	11.5
08/14/01	13.5	15.9	11.5
08/15/01	13.2	15.1	11.4
08/16/01	13.4	15.9	11.4
08/17/01	13.6	15.7	11.4
08/18/01	13.8	16.0	11.8
08/19/01	13.7	15.9	11.7
08/20/01	13.1	15.4	11.4
08/21/01	12.3	14.0	10.7
08/22/01	11.8	13.5	10.1
08/23/01	11.6	13.8	9.5
08/24/01	12.0	14.3	9.8
08/25/01	12.5	14.8	10.3
08/26/01	13.0	15.2	10.9
08/27/01	13.4	15.7	11.4
08/28/01	13.6	15.9	11.5
08/29/01	13.6	15.6	11.8
08/30/01	13.1	15.1	11.4
08/31/01	12.7	14.8	10.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Rube Creek		
Date	Mean	Maximum	Minimum
09/01/01	12.3	14.5	10.4
09/02/01	12.5	14.6	10.4
09/03/01	12.7	14.1	11.4
09/04/01	12.5	14.5	10.7
09/05/01	12.6	14.3	11.1
09/06/01	11.6	13.7	9.7
09/07/01	11.6	13.7	9.5
09/08/01	11.8	14.0	10.0
09/09/01	11.5	13.7	9.7
09/10/01	11.5	13.4	9.7
09/11/01	11.9	13.2	10.9
09/12/01	11.3	13.1	9.7
09/13/01	10.7	12.6	8.6
09/14/01	10.5	12.6	8.4
09/15/01	10.7	12.8	8.7
09/16/01	10.6	12.4	8.7
09/17/01	10.7	12.6	8.9
09/18/01	11.1	13.1	9.3
09/19/01	11.1	13.1	9.3
09/20/01	11.2	13.2	9.5
09/21/01	11.2	13.1	9.3
09/22/01	11.3	13.1	9.5
09/23/01	10.9	12.4	9.3
09/24/01	10.7	12.6	8.7
09/25/01	11.9	13.7	10.9
09/26/01	10.8	12.6	8.9
09/27/01	10.5	12.6	8.7
09/28/01	10.2	12.0	8.6
09/29/01	10.6	12.9	8.9
09/30/01	10.8	12.8	8.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix B: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Rube Creek		
Date	Mean	Maximum	Minimum
10/01/01	11.1	12.4	9.5
10/02/01	11.2	13.1	9.5
10/03/01	11.3	13.1	9.5
10/04/01	11.3	13.1	9.8
10/05/01	11.1	12.9	10.0
10/06/01	10.0	11.7	8.6
10/07/01	9.2	11.1	7.5
10/08/01	9.5	10.7	8.1
10/09/01	9.1	10.7	7.5
10/10/01	8.4	10.1	6.6
10/11/01	8.8	10.3	7.3
10/12/01	9.1	11.4	7.2
10/13/01	9.1	11.1	7.2
10/14/01	9.4	10.9	7.8
10/15/01	9.3	11.2	7.7
10/16/01	9.3	11.1	7.8
10/17/01	9.1	10.4	7.7
10/18/01	8.8	10.6	7.0
10/19/01	8.8	10.3	7.3
10/20/01	8.9	10.6	7.3
10/21/01	8.6	10.3	7.0
10/22/01	8.0	9.7	6.4
10/23/01	8.1	10.0	6.7
10/24/01	7.7	9.5	5.9
10/25/01	7.6	9.3	5.9
10/26/01	7.6	9.2	5.9
10/27/01			
10/28/01			
10/29/01			
10/30/01			
10/31/01			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

APPENDIX C

DAILY WATER TEMPERATURE DATA FOR THE SAN JOAQUIN RIVER DRAINAGE

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	MF SJR Upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	MF SJR Upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00												
06/15/00												
06/16/00				M	M	M	16.97	17.48	16.20	17.28	17.93	16.81
06/17/00				M	M	M	17.46	18.12	16.99	17.70	18.26	17.29
06/18/00				M	M	M	17.18	18.12	15.73	17.53	18.42	16.18
06/19/00				M	M	M	17.24	17.96	15.88	17.57	18.42	16.34
06/20/00				M	M	M	17.71	18.12	16.99	18.09	19.23	16.66
06/21/00				M	M	M	17.96	18.61	17.16	F	F	F
06/22/00				M	M	M	18.15	19.26	16.99	F	F	F
06/23/00				M	M	M	18.50	19.59	16.99	F	F	F
06/24/00				M	M	M	18.28	19.26	16.36	F	F	F
06/25/00				M	M	M	15.40	17.32	13.21	F	F	F
06/26/00				M	M	M	15.39	18.45	12.12	F	F	F
06/27/00				M	M	M	17.37	19.91	14.14	F	F	F
06/28/00				M	M	M	19.32	20.56	17.48	F	F	F
06/29/00				M	M	M	15.29	17.48	13.21	F	F	F
06/30/00				M	M	M	13.46	14.61	12.59	F	F	F

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	MF SJR Upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00				M	M	M	13.00	14.29	12.12	F	F	F
07/02/00				M	M	M	13.26	14.77	11.81	F	F	F
07/03/00				M	M	M	13.56	14.61	12.59	F	F	F
07/04/00				M	M	M	13.60	14.77	12.43	F	F	F
07/05/00				M	M	M	13.77	14.77	12.59	F	F	F
07/06/00				M	M	M	13.65	14.93	12.43	F	F	F
07/07/00				M	M	M	13.57	15.09	12.43	16.08	17.13	14.92
07/08/00				M	M	M	13.73	15.25	12.59	16.23	17.13	15.07
07/09/00				M	M	M	13.88	15.25	12.74	16.50	17.45	15.39
07/10/00				M	M	M	14.03	15.57	12.90	16.83	17.77	15.71
07/11/00				M	M	M	14.20	15.73	13.21	17.20	18.26	16.02
07/12/00				M	M	M	14.33	15.88	13.21	17.42	18.42	16.18
07/13/00				M	M	M	14.38	16.04	13.21	17.33	18.26	16.18
07/14/00				M	M	M	14.49	16.04	13.37	17.45	18.42	16.34
07/15/00				M	M	M	14.60	16.20	13.67	17.62	18.58	16.49
07/16/00				M	M	M	14.73	16.20	13.67	17.75	18.74	16.81
07/17/00				M	M	M	14.71	16.36	13.52	17.46	18.42	16.34
07/18/00				M	M	M	14.76	16.36	13.52	17.40	18.42	16.34
07/19/00				M	M	M	14.80	16.20	13.52	17.42	18.26	16.34
07/20/00				M	M	M	15.05	16.68	13.67	17.53	18.42	16.34
07/21/00				M	M	M	15.56	17.16	14.46	18.50	20.36	16.66
07/22/00				M	M	M	15.66	17.16	14.61	19.03	20.84	17.45
07/23/00				M	M	M	15.72	17.16	14.61	18.90	20.52	17.29
07/24/00				M	M	M	15.78	17.16	14.77	18.98	20.52	17.77
07/25/00				M	M	M	15.76	16.83	14.77	18.98	20.52	17.93
07/26/00				M	M	M	15.81	16.99	14.77	18.97	20.52	17.77
07/27/00				M	M	M	15.86	16.99	14.93	18.81	20.36	17.61
07/28/00				M	M	M	15.89	16.99	14.93	18.72	20.19	17.45
07/29/00				M	M	M	15.99	17.16	15.09	19.02	20.68	17.77
07/30/00				M	M	M	16.29	17.48	15.41	19.65	21.34	18.26
07/31/00				M	M	M	16.49	17.80	15.57	20.18	21.84	18.91

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	MF SJR Upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00				M	M	M	16.26	16.68	15.88	20.62	22.34	19.55
08/02/00				M	M	M	16.00	16.36	15.57	20.04	21.84	19.39
08/03/00				M	M	M	16.26	17.32	15.57	19.75	21.51	18.58
08/04/00				M	M	M	16.77	17.80	15.88	19.94	21.84	18.74
08/05/00				M	M	M	17.01	18.12	16.20	20.08	20.84	19.23
08/06/00				M	M	M	17.11	18.12	16.20	20.05	20.84	19.39
08/07/00				M	M	M	17.18	18.28	16.36	19.81	20.36	19.23
08/08/00				M	M	M	17.16	18.28	16.20	19.39	20.03	18.74
08/09/00				M	M	M	17.21	18.61	16.20	19.19	19.87	18.58
08/10/00	16.7	17.6	15.7	M	M	M	17.20	18.45	16.04	18.90	19.55	18.26
08/11/00	16.3	17.3	15.1	M	M	M	17.23	18.45	16.04	18.63	19.23	17.93
08/12/00	16.6	17.6	15.6	M	M	M	17.42	18.77	16.36	18.79	19.55	18.09
08/13/00	16.7	17.8	15.7	M	M	M	17.53	18.77	16.52	18.84	19.39	18.09
08/14/00	16.7	17.8	15.9	M	M	M	17.59	18.94	16.52	18.69	19.39	18.09
08/15/00	17.1	18.3	16.4	M	M	M	17.80	19.26	16.83	18.98	19.71	18.42
08/16/00	17.5	18.6	16.8	M	M	M	17.94	19.26	16.83	19.16	19.71	18.42
08/17/00	17.7	18.7	17.0	M	M	M	18.11	19.43	17.16	19.23	19.87	18.58
08/18/00	17.2	18.1	16.5	M	M	M	18.12	19.43	16.99	18.95	19.39	18.26
08/19/00	16.3	17.1	15.6	M	M	M	17.98	19.10	16.99	18.32	18.91	17.61
08/20/00	15.8	16.8	14.9	M	M	M	17.92	18.77	16.99	18.08	18.74	17.45
08/21/00	16.0	17.0	15.2	M	M	M	18.13	19.10	17.16	18.25	18.91	17.45
08/22/00	16.2	17.1	15.4	M	M	M	18.34	19.59	17.32	18.49	19.23	17.77
08/23/00	16.4	17.5	15.7	M	M	M	18.46	19.59	17.48	18.74	19.39	18.09
08/24/00	16.6	17.6	15.7	M	M	M	18.61	19.91	17.48	18.78	19.39	18.09
08/25/00	17.3	18.4	16.4	M	M	M	18.94	20.08	17.96	19.54	20.36	18.91
08/26/00	17.8	18.7	17.3	M	M	M	19.31	20.40	18.45	20.44	21.18	19.87
08/27/00	17.7	18.6	16.8	M	M	M	19.35	20.40	18.28	20.30	20.84	19.71
08/28/00	17.8	18.4	17.1	M	M	M	19.27	20.08	18.45	20.14	20.52	19.71
08/29/00	16.9	17.8	16.2	M	M	M	18.96	19.43	18.77	19.87	20.36	19.39
08/30/00	16.0	16.4	15.6	M	M	M	18.89	19.26	18.45	19.29	19.55	19.07
08/31/00	15.9	16.7	15.2	M	M	M	19.02	19.75	18.28	18.94	19.39	18.42

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	MF SJR Upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	15.1	16.2	13.8	M	M	M	18.57	19.26	18.45	18.48	19.07	18.09
09/02/00	13.7	14.8	13.2	M	M	M	18.93	19.75	18.12	18.29	19.23	17.61
09/03/00	13.5	14.3	12.6	M	M	M	19.04	19.59	18.45	18.62	18.91	18.09
09/04/00	13.6	14.4	12.9	M	M	M	18.70	19.26	18.12	18.01	18.42	17.61
09/05/00	13.4	14.1	12.7	M	M	M	18.63	19.43	17.80	17.53	18.09	16.97
09/06/00	13.2	14.1	12.6	M	M	M	18.60	19.43	17.80	17.54	18.09	16.97
09/07/00	13.4	14.4	12.7	M	M	M	18.71	19.91	17.64	17.52	18.09	16.97
09/08/00	13.9	14.9	13.1	M	M	M	18.69	19.59	17.80	17.83	18.42	17.29
09/09/00	14.0	15.1	13.4	M	M	M	18.66	19.43	17.80	17.83	18.26	17.29
09/10/00	14.4	15.6	13.5	M	M	M	18.69	19.43	17.80	17.96	18.42	17.45
09/11/00	14.7	15.9	13.8	M	M	M	18.76	19.59	17.96	18.16	18.74	17.61
09/12/00	14.7	15.6	14.0	15.5	16.0	14.9	18.53	19.10	17.80	17.90	18.42	17.45
09/13/00	15.2	16.2	14.3	15.8	16.3	15.4	18.86	19.75	18.12	18.48	19.07	17.93
09/14/00	15.7	16.8	14.8	16.4	17.0	15.8	19.07	19.91	18.28	19.01	19.55	18.42
09/15/00	16.2	17.3	15.2	16.9	17.4	16.5	19.11	19.75	18.45	19.42	19.87	18.91
09/16/00	16.0	17.0	15.2	16.9	17.4	16.5	19.01	19.75	18.28	19.18	19.71	18.74
09/17/00	15.8	16.8	14.9	16.7	17.1	16.2	19.05	19.91	18.28	18.82	19.23	18.26
09/18/00	16.0	17.1	15.1	16.8	17.1	16.3	19.08	19.91	18.28	18.91	19.39	18.42
09/19/00	16.3	17.5	15.4	17.0	17.4	16.5	19.14	19.91	18.45	19.17	19.55	18.74
09/20/00	16.7	17.8	15.7	17.3	17.6	16.8	19.31	20.08	18.61	19.39	19.87	18.91
09/21/00	16.9	17.8	16.0	17.5	17.8	17.1	19.27	19.75	18.77	19.47	19.71	19.07
09/22/00	16.1	16.8	15.1	17.0	17.6	16.5	18.85	19.43	18.61	18.73	19.39	18.26
09/23/00	14.7	15.2	14.0	15.8	16.5	15.4	18.66	19.10	18.12	17.51	18.26	17.13
09/24/00	14.1	14.9	13.5	15.0	15.5	14.6	18.69	19.26	18.12	17.43	17.93	16.81
09/25/00	14.0	14.9	13.2	14.8	15.2	14.3	18.79	19.43	18.12	17.63	17.93	17.13
09/26/00	14.0	14.9	13.1	14.6	15.1	14.3	18.85	19.43	18.12	17.71	17.93	17.29
09/27/00	14.0	14.9	13.1	14.6	14.9	14.1	18.77	19.43	18.12	17.74	18.09	17.29
09/28/00	14.1	15.1	13.1	14.7	15.1	14.3	18.51	18.94	17.96	17.84	18.09	17.45
09/29/00	14.2	15.2	13.2	14.7	15.1	14.3	18.31	18.77	17.80	17.83	18.26	17.29
09/30/00	14.5	15.6	13.4	14.9	15.2	14.4	18.40	19.10	17.80	17.74	18.09	17.29

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	MF SJR Upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	14.6	15.4	13.5	15.0	15.5	14.6	18.42	19.10	17.80	17.85	18.09	17.45
10/02/00	14.4	15.2	13.4	14.8	15.2	14.4	18.29	18.77	17.80	17.68	17.93	17.29
10/03/00	14.2	15.1	13.2	14.7	15.1	14.3	18.20	18.77	17.64	17.62	17.93	17.13
10/04/00	13.9	14.8	12.9	14.5	14.9	14.1	18.05	18.45	17.64	17.40	17.77	16.97
10/05/00	13.8	14.6	12.7	14.3	14.7	13.8	18.01	18.61	17.48	17.28	17.61	16.66
10/06/00	13.6	14.6	12.6	14.2	14.6	13.7	18.02	18.61	17.48	17.22	17.61	16.81
10/07/00	13.7	14.6	12.7	14.2	14.7	13.8	17.95	18.28	17.64	17.35	17.77	16.81
10/08/00	13.8	14.6	12.9	14.3	14.7	14.0	17.83	18.12	17.48	17.33	17.77	16.81
10/09/00	13.5	14.1	12.7	14.2	14.6	13.8	17.66	17.96	17.32	17.07	17.61	16.66
10/10/00	12.1	13.4	10.9	13.1	14.0	12.1	17.15	17.64	16.83	15.97	16.66	15.55
10/11/00	10.5	10.9	9.5	11.4	12.1	11.0	16.81	17.16	16.68	15.11	15.55	14.92
10/12/00	9.8	10.4	9.3	10.7	11.2	10.3	16.73	17.16	16.52	14.93	15.23	14.60
10/13/00	9.6	10.4	9.0	10.2	10.6	9.8	16.32	16.68	16.04	14.85	15.23	14.29
10/14/00	9.7	10.6	8.9	10.2	10.6	9.8	16.05	16.36	15.57	14.92	15.39	14.29
10/15/00	9.8	10.7	9.0	10.3	10.7	9.8	15.90	16.20	15.57	14.93	15.23	14.44
10/16/00	10.1	11.0	9.2	10.5	11.0	10.1	15.79	16.04	15.41	14.98	15.39	14.44
10/17/00	10.3	11.2	9.5	10.8	11.2	10.4	15.66	15.88	15.25	15.11	15.39	14.60
10/18/00	10.4	11.0	9.6	10.9	11.2	10.7	15.50	15.73	15.09	14.94	15.23	14.60
10/19/00	10.4	11.2	9.6	11.0	11.2	10.6	15.34	15.57	14.93	14.90	15.23	14.44
10/20/00	10.4	11.2	9.6	11.1	11.3	10.7	15.26	15.57	14.93	14.87	15.23	14.60
10/21/00	10.1	10.7	9.3	10.8	11.2	10.1	15.00	15.41	14.61	14.76	15.23	14.29
10/22/00	8.1	9.2	7.5	9.0	10.1	8.4	14.28	14.61	13.98	12.98	14.29	12.59
10/23/00	7.6	8.4	6.6	8.4	8.7	7.9	14.25	14.61	13.83	12.39	12.90	11.82
10/24/00	8.1	9.0	7.2	8.7	9.0	8.4	14.45	14.77	13.98	12.98	13.52	12.43
10/25/00	8.4	9.0	7.8	9.0	9.2	8.7	14.32	14.61	14.14	13.30	13.52	13.06
10/26/00	8.5	8.9	8.1	9.2	9.3	9.0	13.94	14.29	13.37	13.47	13.67	13.21
10/27/00	8.0	8.6	7.5	8.8	9.0	8.4	13.44	13.67	13.21	12.82	13.21	12.43
10/28/00	8.0	8.4	7.5				13.43	13.67	13.21	13.05	13.36	12.74
10/29/00	7.5	7.9	6.9				13.14	13.52	12.90	12.68	13.21	12.13
10/30/00	6.1	6.7	5.6				12.61	12.90	12.43	11.78	12.13	11.51
10/31/00	5.4	5.8	4.7				12.36	12.59	12.12	11.53	11.82	11.04

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR ds Dam 6			SJR us Stevenson Creek			SJR ds PH 3		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00															
05/02/00															
05/03/00															
05/04/00															
05/05/00															
05/06/00															
05/07/00															
05/08/00															
05/09/00															
05/10/00															
05/11/00															
05/12/00															
05/13/00															
05/14/00															
05/15/00															
05/16/00															
05/17/00															
05/18/00															
05/19/00															
05/20/00															
05/21/00															
05/22/00															
05/23/00															
05/24/00															
05/25/00															
05/26/00															
05/27/00															
05/28/00															
05/29/00															
05/30/00															
05/31/00															

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR ds Dam 6			SJR us Stevenson Creek			SJR ds PH 3		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00															
06/02/00															
06/03/00															
06/04/00															
06/05/00															
06/06/00															
06/07/00															
06/08/00															
06/09/00															
06/10/00															
06/11/00															
06/12/00															
06/13/00															
06/14/00															
06/15/00															
06/16/00															
06/17/00															
06/18/00															
06/19/00															
06/20/00															
06/21/00				18.23	20.35	16.49				12.30	12.89	11.66			
06/22/00	19.55	21.50	17.44	18.46	20.51	16.65				12.35	13.05	11.66	11.92	12.23	11.46
06/23/00	19.44	21.33	17.12	F	F	F				12.71	14.28	11.50	11.86	12.39	11.46
06/24/00	19.24	21.01	17.76	F	F	F				12.90	16.49	11.66	12.15	13.32	11.31
06/25/00	F	F	F	F	F	F				F	F	F	11.84	12.23	11.46
06/26/00	F	F	F	F	F	F				F	F	F	11.40	11.77	11.15
06/27/00	F	F	F	F	F	F				F	F	F	11.41	11.77	11.15
06/28/00	F	F	F	F	F	F				12.85	13.67	12.27	11.63	12.08	11.31
06/29/00	F	F	F	18.81	21.50	16.02				13.03	14.28	12.58	12.11	12.39	11.77
06/30/00	F	F	F	F	F	F				13.51	18.42	12.12	11.84	12.08	11.62

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR ds Dam 6			SJR us Stevenson Creek			SJR ds PH 3		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	F	F	F	F	F	F				F	F	F	11.86	12.23	11.62
07/02/00	F	F	F	F	F	F				12.61	16.18	10.88	11.88	12.08	11.62
07/03/00	F	F	F	17.56	21.67	13.67				13.62	16.34	11.97	11.95	12.23	11.77
07/04/00	F	F	F	17.83	21.67	12.28				F	F	F	12.08	12.39	11.93
07/05/00	F	F	F	F	F	F				F	F	F	12.17	12.39	11.93
07/06/00	F	F	F	F	F	F				F	F	F	12.32	12.54	12.08
07/07/00	17.95	20.35	15.86	16.77	21.50	11.66				F	F	F	12.48	12.70	12.23
07/08/00	18.06	20.35	15.86	F	F	F				F	F	F	12.59	12.86	12.23
07/09/00	18.39	20.68	16.17	F	F	F				F	F	F	12.82	13.16	12.54
07/10/00	18.79	21.17	16.65	F	F	F				F	F	F	13.01	13.63	12.70
07/11/00	19.30	21.67	17.12	F	F	F				F	F	F	13.27	13.78	13.01
07/12/00	19.59	22.00	17.44	18.24	23.00	13.52				F	F	F	13.47	13.93	13.16
07/13/00	19.39	21.67	17.12	F	F	F				16.82	19.07	14.91	13.81	14.24	13.47
07/14/00	19.54	21.83	17.28	F	F	F				17.40	20.36	14.91	13.63	14.09	13.16
07/15/00	19.72	22.00	17.60	F	F	F				16.70	18.91	14.91	13.48	13.78	13.32
07/16/00	19.78	22.00	18.08	F	F	F				18.97	20.84	17.45	13.49	13.78	13.16
07/17/00	19.40	21.67	17.28	F	F	F				19.63	21.18	18.09	13.59	13.93	13.32
07/18/00	19.34	21.67	17.12	F	F	F				17.99	20.84	14.76	13.68	13.93	13.47
07/19/00	19.35	21.67	17.12	F	F	F				14.97	17.45	13.97	13.59	13.93	13.32
07/20/00	19.45	21.67	17.12	F	F	F				14.65	17.13	13.82	13.75	13.93	13.47
07/21/00	19.95	22.50	17.76	F	F	F				16.19	18.58	14.44	13.77	14.09	13.47
07/22/00	20.39	22.83	18.41	F	F	F				18.56	20.68	16.97	13.60	13.78	13.32
07/23/00	20.54	22.83	18.57	F	F	F				19.34	21.01	17.45	13.63	13.93	13.47
07/24/00	20.65	23.00	18.57	F	F	F				17.67	20.36	14.60	13.68	13.93	13.47
07/25/00	20.68	22.83	18.73	F	F	F				14.74	16.34	14.44	13.83	14.24	13.47
07/26/00	20.63	23.00	18.73	F	F	F				15.18	18.91	14.44	14.02	14.24	13.78
07/27/00	20.37	22.67	18.24	F	F	F				15.52	18.26	14.13	14.02	14.40	13.63
07/28/00	20.22	22.50	18.08	20.18	26.81	15.39				15.20	16.97	14.44	14.06	14.40	13.63
07/29/00	20.51	22.67	18.57	F	F	F				15.68	17.61	14.60	14.24	14.56	13.93
07/30/00	21.33	23.34	19.54	F	F	F				17.07	19.23	15.55	14.36	14.71	14.09
07/31/00	21.85	23.85	20.19	F	F	F				18.79	21.01	17.77	14.58	14.71	14.40

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR ds Dam 6			SJR us Stevenson Creek			SJR ds PH 3		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	22.62	24.20	21.17	F	F	F				17.39	20.19	15.55	14.51	14.71	14.24
08/02/00	22.23	23.00	21.01	22.23	24.37	19.54				16.15	17.61	15.71	14.66	14.87	14.40
08/03/00	22.15	23.85	20.68	F	F	F				16.50	19.23	15.87	14.76	15.03	14.56
08/04/00	22.25	24.37	20.51	F	F	F				16.61	20.03	15.87	14.87	15.19	14.56
08/05/00	22.13	24.20	20.35	F	F	F				16.55	18.91	16.18	15.14	15.34	14.87
08/06/00	21.97	24.02	20.19	F	F	F				16.73	19.87	16.02	15.28	15.66	14.87
08/07/00	21.58	23.51	19.87	F	F	F				17.36	19.39	15.87	15.39	15.82	15.03
08/08/00	21.15	23.17	19.22	F	F	F				18.90	20.68	17.29	15.49	15.98	15.19
08/09/00	20.81	22.83	18.89	F	F	F				18.52	20.84	16.81	15.36	15.82	15.03
08/10/00	20.27	22.33	18.41	F	F	F				16.86	19.55	15.87	15.39	15.82	15.03
08/11/00	19.99	22.17	18.08	19.91	22.17	17.61				16.70	19.39	15.55	15.58	15.98	15.19
08/12/00	20.24	22.33	18.24	20.21	22.33	17.77				16.86	19.55	15.87	15.57	15.98	15.19
08/13/00	20.09	22.17	18.24	20.03	22.33	17.61				17.30	19.23	15.87	15.75	16.29	15.34
08/14/00	19.79	21.83	17.76	19.73	21.83	17.29				17.43	19.39	16.49	15.97	16.29	15.66
08/15/00	20.20	22.33	18.24	20.02	22.33	17.77				17.20	19.39	16.34	15.86	16.77	15.34
08/16/00	20.42	22.50	18.57	20.29	22.50	18.25				17.42	19.87	16.49	16.19	16.77	15.66
08/17/00	20.40	22.33	18.57	19.54	22.50	16.34				17.70	20.03	16.66	16.47	16.93	16.14
08/18/00	19.94	22.00	18.08	F	F	F				17.95	19.55	16.66	16.84	17.09	16.29
08/19/00	19.02	21.01	16.97	F	F	F				17.89	19.55	16.18	16.51	17.09	15.82
08/20/00	18.75	20.68	16.81	F	F	F				17.95	19.55	16.34	16.37	17.25	15.51
08/21/00	18.84	20.84	16.97	F	F	F				18.08	19.39	16.49	16.36	17.41	15.51
08/22/00	19.08	21.01	17.12	F	F	F				18.33	19.71	16.81	16.51	16.93	15.82
08/23/00	19.32	21.17	17.44	18.20	21.33	13.82				18.34	19.07	17.29	16.83	17.25	16.14
08/24/00	19.40	21.50	17.44	19.25	21.50	16.49				18.04	19.55	16.66	17.12	17.57	16.46
08/25/00	20.35	22.17	18.73	19.31	22.33	16.02				19.26	20.68	18.09	17.24	17.57	16.77
08/26/00	21.27	23.17	19.87	21.09	23.34	17.61				20.44	21.68	19.39	17.25	17.73	16.46
08/27/00	21.18	23.00	19.38	F	F	F				20.53	21.68	19.23	17.37	18.21	16.77
08/28/00	21.10	22.50	19.71	20.10	22.67	17.13				20.53	21.34	19.39	17.14	18.05	15.82
08/29/00	20.59	21.50	20.03	19.68	21.50	17.93				20.32	21.01	20.03	16.47	17.73	15.66
08/30/00	19.96	20.84	19.38	F	F	F				19.89	20.52	19.39	17.41	17.89	16.62
08/31/00	19.19	20.19	18.41	F	F	F				19.26	20.03	18.42	17.36	18.05	16.62

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR ds Dam 6			SJR us Stevenson Creek			SJR ds PH 3		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	18.51	19.22	17.92	F	F	F				18.64	19.39	18.09	17.01	18.86	16.62
09/02/00	18.18	19.06	17.28	F	F	F				18.28	18.91	17.77	17.33	19.02	16.62
09/03/00	18.21	19.22	17.44	F	F	F				17.90	18.42	17.29	16.94	17.57	16.14
09/04/00	17.22	17.92	16.33	F	F	F				17.14	17.93	16.34	16.64	18.69	15.66
09/05/00	17.06	18.89	15.38	F	F	F				16.63	17.77	15.39	15.97	17.09	15.19
09/06/00	17.15	18.89	15.38	F	F	F				16.50	17.93	15.23	15.61	16.46	15.03
09/07/00	17.20	19.06	15.38	F	F	F				16.35	17.77	14.91	16.21	16.77	15.66
09/08/00	17.54	19.22	15.69	F	F	F				16.72	18.09	15.39	16.46	16.62	16.14
09/09/00	17.63	19.38	15.86	F	F	F				16.88	18.09	15.55	16.59	17.25	15.98
09/10/00	17.89	19.54	16.17	F	F	F				17.10	18.42	15.87	16.43	17.09	15.82
09/11/00	18.16	19.87	16.33	F	F	F				17.31	18.58	16.02	16.52	17.25	16.14
09/12/00	17.67	18.73	16.01	F	F	F				16.83	17.93	15.87	16.94	17.57	16.29
09/13/00	18.62	20.03	17.12	18.49	20.19	16.97				17.33	18.74	16.34	17.02	17.73	16.29
09/14/00	19.20	21.01	17.44	18.89	20.84	17.13				18.26	19.55	17.13	16.89	17.73	16.29
09/15/00	19.75	21.33	18.24	18.24	21.33	14.60				18.97	20.03	17.77	17.15	17.73	16.46
09/16/00	19.37	20.84	17.60	19.00	20.68	16.81				18.61	19.87	17.29	17.22	17.89	16.46
09/17/00	19.06	20.84	17.12	18.37	20.68	15.87				18.26	20.03	17.13	17.23	17.89	16.62
09/18/00	19.29	20.84	17.60	18.72	20.84	16.18				18.32	19.71	17.29	17.37	18.05	16.77
09/19/00	19.48	21.01	17.76	18.39	20.84	14.60				18.36	20.03	17.29	17.61	18.21	17.09
09/20/00	19.81	21.33	18.08	18.34	21.17	15.07				18.55	20.03	17.61	17.88	18.21	17.25
09/21/00	19.73	21.01	18.41	18.65	22.17	15.23				18.65	19.55	17.77	17.74	18.37	16.93
09/22/00	18.49	19.54	17.60	15.94	18.73	14.29				18.25	19.07	17.93	17.67	18.53	16.77
09/23/00	17.43	18.57	16.01	F	F	F				17.19	17.77	16.34	17.13	18.05	16.29
09/24/00	17.15	18.73	15.38	F	F	F				16.76	17.77	15.55	16.20	16.77	15.82
09/25/00	17.26	18.89	15.54	17.26	19.54	15.39				16.70	17.77	15.55	17.42	18.05	16.77
09/26/00	17.31	18.73	15.69	16.95	18.73	15.23				16.67	17.77	15.55	18.41	19.02	17.89
09/27/00	17.41	18.89	15.86	17.39	18.90	15.87				17.04	18.26	16.02	18.73	19.18	18.37
09/28/00	17.48	18.73	16.17	17.69	20.35	15.87				17.13	18.09	16.18	18.78	19.34	18.37
09/29/00	17.48	18.89	16.17	17.59	20.35	15.55				17.15	18.09	16.18	18.59	19.02	18.37
09/30/00	17.74	19.22	16.33	F	F	F				17.33	18.58	16.34	18.31	18.53	18.21

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR ds Dam 6			SJR us Stevenson Creek			SJR ds PH 3		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	17.82	19.22	16.17	F	F	F				17.22	18.42	16.02	18.30	18.53	18.05
10/02/00	17.52	18.89	15.86	16.72	18.73	14.29				17.08	18.26	15.87	18.29	18.69	18.05
10/03/00	17.50	18.73	16.01	16.92	18.57	14.13				17.20	18.26	16.18	18.06	18.37	17.57
10/04/00	17.19	18.41	15.69	16.73	18.25	14.92				16.92	17.77	15.87	17.87	18.21	17.73
10/05/00	17.11	18.41	15.54	16.76	18.41	14.76				16.69	17.61	15.71	17.54	17.73	17.25
10/06/00	17.02	18.24	15.38	17.14	18.57	15.55				16.59	17.61	15.55	17.49	17.73	17.25
10/07/00	17.30	18.57	16.01	17.39	18.90	16.02				16.84	17.77	16.02	17.50	17.73	17.25
10/08/00	17.28	18.41	15.86	17.40	18.90	15.87				16.99	17.93	16.18	17.40	17.57	17.25
10/09/00	16.80	17.44	15.69	16.83	18.41	15.71				16.52	17.45	15.87	17.27	17.57	17.09
10/10/00	15.13	16.65	14.28	15.20	16.49	14.44				15.18	16.49	14.91	17.22	17.41	17.09
10/11/00	13.69	14.28	13.20	13.90	14.44	13.36				13.95	14.76	13.51	17.08	17.25	16.77
10/12/00	13.52	13.97	13.04	13.84	14.44	13.36				13.36	13.51	13.05	16.65	17.09	16.29
10/13/00	13.40	14.28	12.11	13.70	15.23	12.13				12.94	13.67	12.12	16.33	16.62	15.98
10/14/00	14.03	15.38	12.89	14.34	16.02	13.06				13.36	14.44	12.58	16.36	16.62	15.98
10/15/00	14.13	15.38	12.89	14.50	16.18	13.06				13.64	14.60	12.89	16.38	16.62	16.14
10/16/00	14.45	15.69	13.04	14.65	15.87	13.36				14.00	15.07	13.20	16.02	16.14	15.82
10/17/00	14.66	15.86	13.36	14.89	16.34	13.52				14.27	15.39	13.51	15.97	16.14	15.82
10/18/00	14.73	16.01	13.51	14.94	16.18	13.67				14.54	15.71	13.67	15.92	16.14	15.82
10/19/00	14.72	15.86	13.51	14.89	16.02	13.52				14.64	15.55	13.82	15.85	15.98	15.66
10/20/00	14.63	15.54	13.51	14.85	15.87	13.67				14.51	15.23	13.82	15.67	15.82	15.51
10/21/00	14.14	14.74	12.89	14.42	15.71	13.06				14.30	14.91	13.67	15.64	15.82	15.51
10/22/00	11.99	12.89	10.57	12.40	13.98	10.73				12.80	13.67	11.97	15.50	15.66	15.34
10/23/00	11.98	13.04	10.72	12.69	14.60	11.19				12.28	13.05	11.50	15.32	15.66	14.87
10/24/00	12.33	13.51	11.18	13.81	16.81	11.97				12.36	13.20	11.66	14.94	15.19	14.87
10/25/00	12.61	13.20	11.80	14.19	17.77	13.06				12.57	12.89	12.12	14.78	14.87	14.71
10/26/00	12.51	12.89	11.80	13.10	14.29	12.13				12.78	12.89	12.43	14.71	14.87	14.56
10/27/00	11.73	12.58	10.57	12.20	13.36	10.89				12.29	12.89	11.81	14.66	14.71	14.40
10/28/00	12.29	12.58	11.64	12.91	13.82	12.13				12.46	12.74	11.97	14.31	14.71	14.09
10/29/00	11.86	12.27	10.72	12.23	13.06	11.04							14.20	14.56	14.09
10/30/00	10.38	10.72	9.63	11.71	14.29	10.42									
10/31/00	10.42	11.34	9.32	11.04	12.43	9.80									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00						
05/02/00						
05/03/00						
05/04/00						
05/05/00						
05/06/00						
05/07/00						
05/08/00						
05/09/00						
05/10/00						
05/11/00						
05/12/00						
05/13/00						
05/14/00						
05/15/00						
05/16/00						
05/17/00						
05/18/00						
05/19/00						
05/20/00						
05/21/00						
05/22/00						
05/23/00						
05/24/00						
05/25/00						
05/26/00						
05/27/00						
05/28/00						
05/29/00						
05/30/00						
05/31/00						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00						
06/02/00						
06/03/00						
06/04/00						
06/05/00						
06/06/00						
06/07/00						
06/08/00						
06/09/00						
06/10/00						
06/11/00						
06/12/00						
06/13/00						
06/14/00						
06/15/00						
06/16/00						
06/17/00						
06/18/00						
06/19/00						
06/20/00						
06/21/00	12.51	13.02	11.93	14.10	15.09	13.22
06/22/00	12.39	13.02	11.78	13.70	15.25	12.92
06/23/00	12.56	13.79	11.78	13.62	16.20	12.92
06/24/00	12.50	13.33	12.09	13.69	14.46	13.07
06/25/00	11.77	12.40	11.47	13.15	14.14	12.76
06/26/00	11.88	12.71	11.47	13.06	13.99	12.61
06/27/00	12.57	13.79	12.09	13.64	16.04	12.61
06/28/00	12.90	13.33	12.56	13.22	14.14	12.61
06/29/00	12.65	13.02	12.24	13.66	15.25	13.07
06/30/00	12.36	12.71	12.09	13.45	14.30	12.92

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	12.25	12.56	11.93	13.43	14.77	12.92
07/02/00	12.28	12.71	11.93	13.42	15.41	12.76
07/03/00	12.36	12.56	12.09	13.27	14.14	12.76
07/04/00	12.37	12.71	12.09	13.30	14.30	12.76
07/05/00	12.54	12.71	12.24	13.22	14.14	12.76
07/06/00	12.63	13.02	12.40	13.43	14.30	12.92
07/07/00	12.80	13.18	12.56	13.49	15.09	12.76
07/08/00	13.15	14.57	12.71	13.47	14.46	13.07
07/09/00	13.34	14.72	12.87	13.57	14.30	13.38
07/10/00	13.74	15.04	13.33	13.69	14.30	13.38
07/11/00	14.08	16.46	13.64	13.95	14.61	13.53
07/12/00	14.92	17.90	14.10	14.21	14.77	13.84
07/13/00	14.86	17.58	14.10	14.62	15.57	13.99
07/14/00	15.23	19.36	13.79	14.74	14.93	14.46
07/15/00	15.17	19.68	13.94	14.70	15.09	14.30
07/16/00	15.37	19.52	14.26	14.71	15.09	14.46
07/17/00	15.31	20.01	14.26	14.84	15.57	14.46
07/18/00	15.19	18.22	14.10	14.92	15.25	14.61
07/19/00	15.12	18.22	14.26	14.88	15.41	14.61
07/20/00	15.19	18.87	14.10	15.11	16.04	14.77
07/21/00	14.31	18.54	13.79	15.20	15.72	14.93
07/22/00	14.51	18.22	13.79	15.00	15.41	14.77
07/23/00	14.37	17.74	13.79	14.97	15.57	14.61
07/24/00	14.48	18.71	13.79	14.93	15.88	14.61
07/25/00	14.62	15.36	14.10	17.26	21.03	14.61
07/26/00	14.38	14.88	14.10	F	F	F
07/27/00	14.42	14.72	14.10	20.55	24.40	17.95
07/28/00	14.48	15.04	14.10	19.92	22.19	16.20
07/29/00	14.71	14.88	14.57	21.87	27.20	18.11
07/30/00	15.42	17.74	14.72	F	F	F
07/31/00	15.21	18.22	14.72	20.38	22.69	16.99

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	14.89	15.99	14.57	21.19	24.23	16.83
08/02/00	15.20	15.83	14.88	21.96	24.74	20.87
08/03/00	15.27	15.52	15.04	23.00	27.20	21.19
08/04/00	15.50	15.99	15.36	20.66	22.36	18.27
08/05/00	15.65	17.26	15.36	20.25	21.86	16.51
08/06/00	15.87	16.78	15.52	20.41	21.53	19.57
08/07/00	15.72	16.14	15.52	20.09	21.03	18.11
08/08/00	15.71	17.10	15.52	20.32	21.36	19.57
08/09/00	15.79	17.42	15.52	19.67	20.87	16.67
08/10/00	16.29	18.71	15.67	20.07	21.36	18.59
08/11/00	15.99	18.71	15.52	19.84	21.19	19.08
08/12/00	16.22	17.74	15.83	19.91	21.69	19.24
08/13/00	16.42	17.10	15.99	19.71	21.03	19.24
08/14/00	16.15	17.42	15.83	19.44	20.54	18.92
08/15/00	16.59	17.74	16.14	19.42	20.54	18.76
08/16/00	16.96	18.38	16.46	19.48	20.54	18.43
08/17/00	17.20	18.71	16.78	19.78	20.54	19.08
08/18/00	17.48	19.19	16.46	F	F	F
08/19/00	17.56	19.36	16.14	F	F	F
08/20/00	18.19	19.36	16.46	19.28	20.54	18.11
08/21/00	18.06	20.17	16.62	18.12	19.41	17.14
08/22/00	18.92	20.49	16.62	17.35	17.79	17.14
08/23/00	18.52	20.49	16.94	17.50	18.11	17.14
08/24/00	18.27	20.66	17.26	17.63	18.92	17.31
08/25/00	18.79	20.98	17.26	17.96	18.43	17.63
08/26/00	19.34	21.81	17.42	17.94	18.59	17.63
08/27/00	21.49	22.48	20.01	18.07	18.59	17.63
08/28/00	19.86	22.14	16.62	18.04	18.43	17.79
08/29/00	20.42	21.98	17.58	17.99	18.43	17.63
08/30/00	21.82	22.48	20.49	18.00	18.43	17.79
08/31/00	21.62	22.31	20.17	17.88	18.43	17.79

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	21.10	21.64	20.17	17.90	18.27	17.79
09/02/00	20.25	20.82	18.87	17.86	18.11	17.79
09/03/00	20.64	21.14	19.68	17.88	18.11	17.79
09/04/00	20.71	21.48	19.84	17.93	18.11	17.79
09/05/00	19.96	20.82	18.38	17.96	18.43	17.63
09/06/00	20.02	21.14	18.06	17.84	18.43	17.47
09/07/00	20.08	21.14	17.58	18.06	19.41	17.47
09/08/00	18.34	20.82	16.46	18.06	19.41	17.47
09/09/00	18.49	20.17	16.62	18.39	19.41	17.14
09/10/00	17.82	19.68	16.46	18.24	19.24	17.47
09/11/00	17.05	18.71	16.78	18.18	19.08	17.31
09/12/00	17.11	17.58	16.78	18.11	18.92	17.31
09/13/00	17.32	19.36	16.78	17.60	18.11	17.31
09/14/00	17.83	20.33	16.94	17.64	17.95	17.47
09/15/00	18.21	20.33	16.78	17.79	18.27	17.63
09/16/00	18.04	20.33	17.10	17.87	18.11	17.63
09/17/00	18.44	20.49	17.26	17.84	18.11	17.79
09/18/00	18.36	20.33	17.58	17.96	18.27	17.79
09/19/00	18.31	20.17	17.74	18.10	18.43	17.79
09/20/00	18.15	19.68	17.26	18.16	18.76	17.95
09/21/00	19.11	20.98	17.42	18.18	18.76	17.95
09/22/00	19.87	20.66	17.42	18.34	18.92	17.95
09/23/00	19.04	20.01	16.94	18.70	19.73	17.95
09/24/00	18.43	19.68	17.42	19.26	19.73	18.76
09/25/00	17.99	18.54	17.26	18.98	19.24	18.59
09/26/00	18.66	19.03	18.38	18.82	19.24	18.59
09/27/00	18.70	19.19	18.38	18.66	18.92	18.59
09/28/00	18.80	19.36	18.38	18.81	19.08	18.59
09/29/00	19.66	20.49	18.71	18.97	19.41	18.76
09/30/00	20.37	21.48	19.19	19.13	19.57	18.92

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2000

Date	Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	20.60	21.48	19.19	19.28	19.57	19.08
10/02/00	19.00	21.14	18.06	19.50	19.73	19.24
10/03/00	18.02	18.22	17.74	19.39	19.73	19.08
10/04/00	17.74	19.03	17.58	19.12	19.41	18.92
10/05/00	18.20	20.17	17.58	19.09	19.24	18.76
10/06/00	19.64	20.82	17.90	19.02	19.24	18.59
10/07/00	19.88	20.82	18.38	19.06	19.41	18.59
10/08/00	19.61	20.82	17.90	19.29	19.57	18.92
10/09/00	17.89	19.68	17.26	19.00	19.41	18.43
10/10/00	17.20	19.03	16.94	18.85	19.08	18.43
10/11/00	17.13	18.22	16.62	18.43	18.59	18.27
10/12/00	16.39	17.42	16.14	18.10	18.27	17.95
10/13/00	16.23	16.62	15.83	17.83	18.27	17.63
10/14/00	16.89	18.38	16.31	17.64	17.79	17.63
10/15/00	17.14	18.87	16.14	17.58	17.79	17.47
10/16/00	16.21	17.58	15.83	17.59	18.11	17.31
10/17/00	16.32	17.58	15.67	17.56	17.63	17.31
10/18/00	16.09	17.42	15.52	17.41	17.79	17.31
10/19/00	15.80	16.46	15.52	17.27	17.63	17.14
10/20/00	15.84	17.26	15.52	17.23	17.47	17.14
10/21/00	15.69	16.78	15.52	17.01	17.14	16.67
10/22/00	15.28	15.67	14.88	16.61	16.83	16.36
10/23/00	15.34	16.46	14.88	16.36	16.36	16.20
10/24/00	15.40	16.62	14.72	16.27	16.36	16.20
10/25/00	15.35	16.46	14.88	16.17	16.36	16.04
10/26/00	15.12	15.99	14.57	16.04	16.04	15.88
10/27/00	14.89	15.83	14.41	15.89	16.04	15.72
10/28/00	15.32	16.14	14.41	15.73	15.88	15.57
10/29/00						
10/30/00						
10/31/00						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	MF SJR upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	6.9	9.7	5.0									
05/02/01	6.3	7.4	5.1									
05/03/01	5.1	7.1	3.2									
05/04/01	6.1	8.4	4.2									
05/05/01	7.2	9.3	5.3									
05/06/01	7.6	10.2	5.6									
05/07/01	7.6	10.2	5.7									
05/08/01	7.4	9.9	5.7									
05/09/01	7.3	9.4	5.9									
05/10/01	7.7	9.9	6.0									
05/11/01	7.9	10.5	6.0									
05/12/01	7.2	8.4	6.2									
05/13/01	7.9	9.6	6.2									
05/14/01	7.9	10.5	5.7									
05/15/01	8.2	10.2	6.5									
05/16/01	8.9	11.1	7.0									
05/17/01	8.6	11.4	6.4									
05/18/01	8.5	10.1	6.8									
05/19/01	9.0	11.8	6.8									
05/20/01	9.3	12.2	6.8									
05/21/01	9.8	12.2	7.7									
05/22/01	10.0	12.8	7.6									
05/23/01	10.4	13.0	8.2									
05/24/01	10.4	13.0	8.2									
05/25/01	10.7	13.1	8.4									
05/26/01	10.2	12.2	8.2									
05/27/01	10.3	12.2	8.2									
05/28/01	10.5	12.2	8.5									
05/29/01	11.2	13.3	9.1									
05/30/01	12.1	13.9	10.1									
05/31/01	12.5	14.5	10.4									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	MF SJR upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	12.6	14.4	10.8									
06/02/01	11.4	13.6	9.7									
06/03/01	10.1	11.6	8.4									
06/04/01	10.9	12.1	9.6									
06/05/01	11.5	12.2	10.4									
06/06/01	12.2	13.9	10.8	12.9	14.1	11.9	13.5	14.6	12.7			
06/07/01	13.5	14.4	12.2	14.3	14.7	13.8	13.8	14.4	13.3	17.7	19.0	16.5
06/08/01	13.2	14.2	11.8	14.2	14.9	13.5	14.0	14.3	13.6	18.5	19.4	17.4
06/09/01	13.0	13.8	11.6	13.9	14.4	13.3	14.2	14.6	13.8	18.5	19.2	17.7
06/10/01	13.2	14.1	11.9	14.0	14.4	13.5	14.3	14.7	13.6	18.4	19.0	17.4
06/11/01	12.9	13.8	11.8	13.9	14.3	13.3	14.3	14.7	13.6	18.1	18.9	17.3
06/12/01	13.2	13.9	12.1	14.0	14.6	13.3	14.4	15.0	13.6	17.9	18.7	17.1
06/13/01	12.7	13.6	11.8	13.8	14.4	13.3	14.6	15.0	14.0	17.8	18.4	16.9
06/14/01	12.7	13.6	11.6	13.6	14.3	12.9	14.4	15.0	14.0	17.8	18.7	16.8
06/15/01	13.6	14.7	12.4	14.4	15.2	13.5	14.3	14.6	14.0	18.3	19.2	17.1
06/16/01	14.2	15.0	13.1	15.1	15.7	14.3	14.5	14.9	14.1	18.8	19.7	17.7
06/17/01	14.4	14.9	13.6	15.4	15.8	14.9	14.6	14.9	14.3	19.1	19.9	18.2
06/18/01	14.1	14.9	13.0	15.1	15.7	14.3	14.7	14.9	14.3	19.1	19.7	18.2
06/19/01	14.4	15.3	13.3	15.4	16.0	14.6	14.8	15.0	14.4	19.1	19.9	18.1
06/20/01	15.0	16.0	13.9	16.0	16.6	15.0	14.9	15.4	14.6	19.4	20.2	18.4
06/21/01	15.8	16.6	14.9	16.8	17.6	16.0	15.1	15.4	14.7	19.9	20.8	18.9
06/22/01	16.3	17.1	15.3	17.4	18.1	16.6	15.3	15.8	14.9	20.4	21.3	19.4
06/23/01	16.5	17.2	15.6	17.6	18.1	17.0	15.5	15.8	15.2	20.6	21.2	19.7
06/24/01	15.7	16.8	14.9	16.8	17.6	16.3	15.5	16.0	15.0	20.0	21.0	19.4
06/25/01	14.6	15.5	13.6	15.7	16.3	15.0	15.3	15.7	14.7	19.0	20.0	18.2
06/26/01	14.9	15.8	14.1	15.9	16.5	15.4	15.4	15.8	14.9	19.1	19.9	18.1
06/27/01	15.6	16.6	14.7	16.5	17.1	15.8	15.5	15.8	15.0	19.5	20.2	18.6
06/28/01	15.7	16.4	14.4	16.7	17.3	16.2	15.7	16.3	15.0	19.4	20.2	18.6
06/29/01	16.3	17.2	15.0	17.2	18.1	16.5	14.7	15.5	13.8	19.3	20.2	18.4
06/30/01	16.9	17.7	15.8	17.9	18.7	17.3	14.6	15.4	13.8	19.0	19.9	18.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	MF SJR upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	17.4	18.2	16.3	18.4	19.2	17.7	14.6	15.4	13.8	18.8	19.7	17.9
07/02/01	17.9	18.8	16.8	19.0	19.9	18.2	14.6	15.5	14.0	19.0	20.0	18.2
07/03/01	18.1	18.8	17.5	19.5	20.0	19.0	14.7	15.7	14.1	19.5	20.5	18.7
07/04/01	17.4	18.0	16.8	18.6	19.2	18.4	14.4	15.0	14.1	19.5	20.0	19.2
07/05/01	18.0	19.2	16.9	18.8	19.7	18.1	14.5	15.4	13.8	19.1	20.2	18.2
07/06/01	17.8	19.0	17.1	18.9	19.5	18.2	14.2	14.9	13.8	18.7	19.5	17.9
07/07/01	16.3	17.1	15.8	17.5	18.2	17.0	13.8	14.1	13.6	17.5	17.7	17.1
07/08/01	15.9	17.1	14.9	16.9	17.6	16.0	14.3	15.2	13.6	17.7	18.9	16.8
07/09/01	16.3	17.2	15.2	17.4	18.1	16.6	14.8	15.7	14.1	18.8	20.0	17.7
07/10/01	16.1	17.1	14.9	17.3	17.7	16.6	14.8	15.5	14.0	18.8	19.5	18.1
07/11/01	16.6	17.4	15.3	17.6	18.1	17.1	14.9	15.8	14.1	18.5	19.4	17.7
07/12/01	16.6	17.4	15.5	17.7	18.4	17.1	14.9	15.8	14.1	18.1	18.9	17.3
07/13/01	16.7	17.4	15.8	17.8	18.4	17.3	14.9	15.7	14.3	18.2	18.9	17.4
07/14/01	16.7	17.7	15.8	17.8	18.4	17.0	15.0	15.8	14.3	18.2	19.0	17.4
07/15/01	16.5	17.4	15.5	17.6	18.1	16.8	15.0	15.8	14.3	17.8	18.6	17.1
07/16/01	16.3	17.2	15.3	17.4	17.9	16.6	15.1	15.8	14.3	17.7	18.6	17.1
07/17/01	16.4	17.5	15.5	17.4	18.1	16.5	15.2	16.0	14.4	17.8	18.7	17.1
07/18/01	16.8	17.9	16.0	17.7	18.4	16.8	15.2	16.0	14.4	18.0	18.9	17.3
07/19/01	17.0	18.0	16.1	17.9	18.6	17.0	15.2	16.0	14.4	18.0	18.9	17.3
07/20/01	17.0	18.0	16.3	18.0	18.7	17.0	15.3	16.0	14.6	18.0	18.9	17.3
07/21/01	17.1	18.2	16.3	18.1	18.7	17.1	15.3	16.2	14.6	18.0	18.9	17.3
07/22/01	17.1	18.2	16.3	18.1	18.7	17.1	15.3	16.0	14.6	18.0	18.7	17.3
07/23/01	17.2	18.4	16.4	18.1	18.9	17.1	15.4	16.0	14.7	18.0	18.7	17.3
07/24/01	17.6	18.7	16.8	18.4	19.2	17.4	15.5	16.2	14.7	18.3	19.2	17.4
07/25/01	18.2	19.2	17.4	18.9	19.7	18.1	15.7	16.3	15.0	18.8	19.7	18.1
07/26/01	18.9	20.1	18.2	19.7	20.5	18.9	15.8	16.5	15.2	19.4	20.3	18.6
07/27/01	19.2	20.1	18.5	20.0	20.7	19.0	15.7	16.2	15.2	19.4	20.2	18.6
07/28/01	18.7	19.6	17.9	19.7	20.5	18.9	15.7	16.2	15.0	18.9	19.5	18.2
07/29/01	18.2	19.3	17.4	19.3	19.9	18.4	15.7	16.3	15.0	18.4	19.2	17.7
07/30/01	17.9	18.8	17.1	18.9	19.5	18.1	15.8	16.5	15.0	18.2	18.9	17.6
07/31/01	18.0	19.2	17.2	18.9	19.5	18.1	15.9	16.6	15.2	18.4	19.4	17.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	MF SJR upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	18.3	19.5	17.5	19.2	19.7	18.4	16.0	16.6	15.4	18.8	19.7	18.1
08/02/01	18.7	19.8	17.9	19.5	20.2	18.7	16.0	16.6	15.5	19.1	19.9	18.4
08/03/01	19.0	20.1	18.4	19.8	20.2	19.2	16.2	16.8	15.5	19.2	20.0	18.6
08/04/01	18.7	19.6	18.0	19.6	20.2	18.9	16.1	16.6	15.5	18.9	19.5	18.2
08/05/01	18.1	19.0	17.2	19.2	19.9	18.4	16.2	16.8	15.4	18.6	19.4	17.7
08/06/01	18.2	19.3	17.2	19.1	19.7	18.4	16.3	16.8	15.7	18.7	19.5	17.9
08/07/01	19.0	20.3	18.0	19.8	20.5	19.2	16.4	17.1	15.7	19.4	20.5	18.7
08/08/01	19.9	21.1	19.2	20.5	21.2	20.0	16.6	17.1	16.0	20.0	20.8	19.4
08/09/01	20.0	20.9	19.3	20.8	21.2	20.2	16.6	17.3	16.0	19.9	20.5	19.2
08/10/01	20.0	20.9	19.3	20.8	21.2	20.2	16.8	17.4	16.2	19.7	20.3	19.0
08/11/01	19.8	20.6	19.0	20.6	21.2	19.9	16.8	17.4	16.2	19.5	20.3	18.9
08/12/01	19.6	20.5	19.0	20.5	21.0	19.9	16.9	17.4	16.3	19.5	20.2	18.9
08/13/01	19.4	20.3	18.7	20.2	20.7	19.5	16.8	17.4	16.3	19.4	20.0	18.7
08/14/01	19.1	20.1	18.4	20.0	20.5	19.4	16.9	17.6	16.3	19.3	20.0	18.6
08/15/01	18.8	19.6	18.4	19.8	20.3	19.2	16.9	17.4	16.5	19.1	19.7	18.4
08/16/01	18.7	19.8	18.0	19.7	20.0	19.0	17.0	17.7	16.5	19.0	19.9	18.4
08/17/01	18.8	19.6	18.0	19.6	20.0	19.0	17.2	17.6	16.6	19.1	19.7	18.6
08/18/01	18.9	20.0	18.0	19.8	20.2	19.2	17.3	17.9	16.6	19.3	20.0	18.7
08/19/01	19.1	20.1	18.4	19.9	20.2	19.4	17.5	18.1	17.0	19.4	20.0	18.9
08/20/01	18.8	19.8	18.0	19.7	20.2	19.2	17.6	18.2	17.0	19.3	19.9	18.7
08/21/01	17.9	18.4	17.2	18.9	19.7	18.4	17.6	18.1	17.1	18.8	19.2	18.4
08/22/01	16.9	17.5	16.6	17.8	18.4	17.6	17.4	17.7	17.0	18.0	18.4	17.6
08/23/01	16.7	17.5	15.8	17.5	17.9	17.0	17.6	18.4	17.0	17.6	18.2	17.1
08/24/01	17.2	18.2	16.1	17.8	18.4	17.3	18.0	18.7	17.4	18.1	19.0	17.4
08/25/01	17.7	18.7	16.6	18.4	19.0	17.7	18.3	19.0	17.6	18.9	19.9	18.2
08/26/01	18.1	19.2	16.9	18.7	19.4	18.1	18.5	19.2	17.9	19.4	20.0	18.9
08/27/01	18.5	19.5	17.4	19.2	19.9	18.6	18.7	19.4	18.1	19.7	20.3	19.2
08/28/01	18.9	19.8	17.9	19.6	20.2	19.0	19.0	19.7	18.4	19.9	20.5	19.4
08/29/01	19.1	20.1	18.2	19.8	20.5	19.4	19.1	19.7	18.6	20.1	20.7	19.5
08/30/01	18.9	19.8	18.0	19.7	20.5	19.4	19.2	19.9	18.6	20.0	20.5	19.5
08/31/01	18.5	19.5	17.5	19.3	20.0	18.7	19.2	19.9	18.6	19.6	20.3	19.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	MF SJR upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	18.2	19.0	17.2	19.1	19.7	18.6	19.3	20.0	18.6	19.7	20.2	19.0
09/02/01	18.0	19.0	16.9	18.9	19.5	18.2	19.4	20.3	18.7	19.6	20.2	19.0
09/03/01	18.1	18.8	17.2	18.9	19.7	18.6	19.5	20.0	19.0	19.9	20.3	19.5
09/04/01	17.9	18.8	17.1	18.7	19.4	18.1	19.6	20.3	19.0	19.9	20.5	19.2
09/05/01	18.0	19.0	17.2	18.7	19.5	18.4	19.8	20.3	19.2	20.0	20.5	19.5
09/06/01	17.4	18.2	16.4	18.2	18.7	17.7	19.7	20.3	19.0	19.3	20.0	18.7
09/07/01	17.1	18.0	16.1	17.9	18.6	17.4	19.7	20.3	19.0	19.0	19.5	18.6
09/08/01	16.9	17.7	15.8	17.6	18.4	17.1	19.8	20.5	19.0	19.0	19.5	18.6
09/09/01	16.7	17.5	15.5	17.4	18.1	16.8	19.9	20.5	19.2	19.0	19.4	18.4
09/10/01	16.6	17.4	15.5	17.2	17.7	16.6	19.9	20.5	19.2	19.0	19.5	18.6
09/11/01	16.7	17.2	16.0	17.4	17.7	17.0	20.0	20.3	19.7	19.3	19.5	19.0
09/12/01	16.4	16.9	15.6	17.0	17.6	16.5	20.1	20.8	19.5	19.1	19.5	18.6
09/13/01	16.1	16.9	14.9	16.8	17.4	16.2	20.2	20.8	19.5	19.0	19.5	18.6
09/14/01	16.0	16.8	14.9	16.7	17.4	16.2	20.3	21.0	19.7	19.0	19.4	18.6
09/15/01	15.9	16.6	14.7	16.5	17.3	15.8	20.3	21.0	19.7	18.8	19.2	18.4
09/16/01	15.8	16.4	14.5	16.4	17.1	15.8	20.3	21.0	19.7	18.8	19.2	18.4
09/17/01	15.8	16.6	14.7	16.4	17.1	15.8	20.2	20.8	19.7	18.9	19.4	18.4
09/18/01	16.0	16.8	14.9	16.5	17.4	16.0	20.3	21.0	19.7	19.1	19.7	18.6
09/19/01	16.0	16.9	14.9	16.6	17.4	16.0	20.2	20.8	19.7	19.2	19.7	18.7
09/20/01	16.3	17.1	15.2	16.8	17.6	16.2	20.2	21.0	19.7	19.3	19.9	18.9
09/21/01	16.3	17.1	15.2	16.9	17.6	16.3	20.1	20.7	19.5	19.3	19.5	18.9
09/22/01	16.4	16.9	15.5	16.9	17.6	16.3	20.0	20.5	19.5	19.1	19.5	18.7
09/23/01	16.0	16.8	15.2	16.5	17.0	16.2	20.0	20.5	19.5	18.8	19.2	18.6
09/24/01	15.6	16.3	14.5	16.1	16.8	15.5	19.8	20.5	19.2	18.4	18.9	17.9
09/25/01	16.2	17.2	15.2	16.6	17.4	16.0	20.1	20.5	19.7	19.3	20.0	18.6
09/26/01	15.9	16.8	14.9	16.6	17.3	16.0	19.9	20.5	19.5	19.3	19.9	18.9
09/27/01	15.6	16.3	14.5	16.1	16.8	15.5	19.6	19.7	19.2	18.6	19.0	18.2
09/28/01	15.2	16.0	14.2	15.8	16.5	15.4	19.3	19.7	18.9	18.1	18.4	17.7
09/29/01	15.1	15.8	14.1	15.5	16.2	14.9	18.8	19.0	18.6	17.6	17.7	17.3
09/30/01	14.9	15.6	13.9	15.3	15.8	14.7	18.7	19.0	18.4	17.7	17.9	17.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	MF SJR upstream of SFSJR			SJR upstream of Mammoth Pool			SJR downstream of Mammoth Pool			SJR upstream of Rock Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	15.1	15.8	14.2	15.4	16.2	14.9	18.8	19.2	18.4	17.9	18.4	17.4
10/02/01	15.2	16.1	14.2	15.5	16.3	14.7	18.9	19.2	18.6	18.0	18.4	17.7
10/03/01	15.4	16.3	14.4	15.9	16.6	15.4	19.0	19.2	18.7	18.2	18.4	17.7
10/04/01	15.7	16.4	14.9	16.0	16.8	15.5	19.0	19.4	18.7	18.3	18.6	17.9
10/05/01	15.7	16.3	15.0	16.1	16.8	15.8	18.8	19.2	18.6	18.1	18.4	17.7
10/06/01	15.0	16.0	14.2	15.5	16.2	15.0	18.3	18.6	18.1	17.4	17.7	17.1
10/07/01	14.4	15.3	13.6	14.9	15.5	14.4	17.9	18.2	17.7	16.9	17.1	16.6
10/08/01	14.1	14.7	13.3	14.6	15.2	14.3	17.8	18.2	17.6	16.7	16.9	16.5
10/09/01	13.7	14.4	13.0	14.3	14.9	13.8	17.7	18.1	17.4	16.6	16.8	16.3
10/10/01	13.2	14.1	12.5	13.8	14.4	13.3	17.6	17.9	17.3	16.2	16.5	16.0
10/11/01	12.9	13.6	12.4	13.4	14.0	13.0	17.5	17.7	17.3	15.8	16.2	15.5
10/12/01	12.7	13.3	12.1	13.1	13.8	12.6	17.3	17.6	17.0	15.4	15.5	15.2
10/13/01	12.5	13.1	11.6	13.0	13.6	12.4	17.1	17.4	16.8	15.4	15.5	15.2
10/14/01	12.4	13.0	11.8	12.7	13.3	12.2	17.0	17.3	16.6	15.4	15.5	15.2
10/15/01	12.5	13.0	11.8	12.7	13.3	12.2	17.0	17.3	16.6	15.4	15.7	15.2
10/16/01	12.4	13.0	11.8	12.7	13.3	12.2	16.9	17.3	16.6	15.3	15.7	15.0
10/17/01	12.5	13.0	11.9				16.7	17.0	16.5	15.0	15.2	14.9
10/18/01	12.3	12.8	11.6				16.5	16.8	16.3	15.0	15.4	14.6
10/19/01	12.1	12.8	11.6				16.5	16.6	16.2	15.0	15.4	14.7
10/20/01	12.1	12.5	11.6				16.4	16.5	16.0			
10/21/01	12.0	12.5	11.3				16.3	16.5	16.0			
10/22/01	11.7	12.4	11.0				16.0	16.3	15.8			
10/23/01	11.5	12.1	10.8				15.7	16.0	15.5			
10/24/01	11.2	11.9	10.7				15.6	15.8	15.4			
10/25/01	10.9	11.4	10.4				15.4	15.7	15.2			
10/26/01	10.6	11.3	10.1				15.4	15.7	15.2			
10/27/01	10.5	11.0	10.1				15.3	15.5	15.0			
10/28/01	10.3	10.8	9.9				15.2	15.4	14.9			
10/29/01	10.2	10.7	9.7									
10/30/01	10.4	10.7	10.1									
10/31/01	9.3	9.9	8.8									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR downstream of Dam 6			SJR upstream of Stevenson Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	15.5	17.6	13.5	15.4	17.4	13.4	9.6	10.7	8.7	16.1	17.8	14.4
05/02/01	15.5	17.2	14.3	15.4	16.9	14.2	9.4	10.1	8.8	16.2	17.6	15.2
05/03/01	12.7	14.5	10.6	12.6	14.2	10.5	8.8	9.7	8.1	14.9	16.5	13.3
05/04/01	12.9	14.9	10.9	12.8	14.7	10.8	8.1	8.7	7.9	11.5	15.1	8.8
05/05/01	13.6	15.9	11.4	13.5	15.8	11.4	8.1	8.7	7.9	9.2	10.4	8.5
05/06/01	14.7	17.0	12.5	14.6	16.7	12.4	8.2	8.7	7.9	9.3	10.2	8.8
05/07/01	15.8	18.1	13.7	15.7	17.9	13.6	8.4	9.1	8.1	9.4	10.2	8.8
05/08/01	16.2	18.4	14.0	16.0	18.2	13.9	8.6	10.1	8.2	10.0	11.0	9.5
05/09/01	15.9	18.0	13.7	15.8	17.7	13.7	8.7	9.7	8.4	9.9	10.6	9.5
05/10/01	15.9	18.1	13.7	15.8	17.9	13.7	8.8	10.1	8.4	10.0	10.9	9.5
05/11/01	16.2	18.4	14.2	16.1	18.2	14.1	8.9	10.4	8.4	10.2	11.2	9.8
05/12/01	15.0	16.5	14.2	15.0	16.4	14.1	8.7	9.6	8.4	9.8	10.2	9.6
05/13/01	14.9	16.7	13.4	14.8	16.4	13.3	8.7	9.7	8.4	9.8	10.4	9.5
05/14/01	15.4	17.5	13.2	15.2	17.4	13.1	9.2	10.4	8.4	10.2	12.0	9.5
05/15/01	15.7	17.5	14.0	15.6	17.4	13.9	9.3	10.4	8.5	11.4	12.6	10.7
05/16/01	16.7	18.9	14.8	16.6	18.7	14.7	9.7	10.8	8.7	12.4	14.0	11.3
05/17/01	17.1	19.3	15.1	16.9	19.0	15.0	9.9	11.0	9.3	15.0	16.6	13.7
05/18/01	16.8	18.4	14.9	16.6	18.2	14.8	9.9	10.8	9.1	16.7	17.8	15.5
05/19/01	16.5	18.8	14.3	16.4	18.5	14.2	10.0	11.0	9.1	17.3	18.7	15.9
05/20/01	16.9	19.1	14.8	16.7	18.8	14.7	10.3	11.5	9.3	18.0	19.4	16.6
05/21/01	17.5	19.7	15.4	17.3	19.5	15.2	10.5	11.5	9.6	18.6	19.9	17.3
05/22/01	18.2	20.4	16.2	17.9	20.1	15.9	10.7	11.8	9.9	19.3	20.5	17.9
05/23/01	18.4	20.6	16.4	18.2	20.3	16.1	10.8	11.9	9.9	19.9	21.5	18.2
05/24/01	18.3	20.6	16.4	18.1	20.3	16.1	9.9	10.5	9.3	16.1	20.4	10.9
05/25/01	18.0	20.1	16.0	17.8	19.8	15.8	9.4	9.9	9.1	10.7	11.5	10.2
05/26/01	17.0	19.3	15.1	16.8	19.0	15.0	9.5	9.9	9.1	10.5	11.5	9.9
05/27/01	16.5	18.9	14.0	16.4	18.8	13.9	10.2	11.1	9.4	10.8	11.5	10.2
05/28/01	16.7	18.1	15.1	16.6	18.0	14.8	10.1	10.5	9.7	11.0	11.3	10.7
05/29/01	17.4	19.7	15.6	17.2	19.5	15.5	10.0	10.5	9.6	11.0	11.5	10.6
05/30/01	18.0	20.6	15.7	17.9	20.3	15.6	10.3	10.8	9.7	11.3	12.1	10.6
05/31/01	19.1	21.4	17.0	18.9	21.1	16.7	10.5	11.6	10.1	11.5	12.3	10.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR downstream of Dam 6			SJR upstream of Stevenson Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	18.9	20.9	16.8	18.7	20.6	16.7	10.5	11.0	10.1	11.6	12.3	11.2
06/02/01	17.8	19.7	15.9	17.6	19.5	15.8	10.2	10.5	9.9	11.3	11.8	10.9
06/03/01	16.3	18.4	14.2	16.1	18.2	14.1	10.1	10.5	9.4	11.0	11.6	10.4
06/04/01	16.2	18.4	14.0	16.0	18.2	13.9	10.4	11.1	10.1	11.2	12.1	10.7
06/05/01	16.9	19.1	14.8	16.6	18.8	14.5	10.8	11.8	9.9	11.7	13.2	11.0
06/06/01	18.0	20.6	15.7	17.8	20.3	15.5	11.0	12.1	10.1	14.2	16.0	12.7
06/07/01	19.3	21.9	16.8	19.1	21.6	16.7	11.2	12.4	10.2	16.5	18.1	15.1
06/08/01	19.9	22.2	17.6	19.7	21.9	17.5	11.2	12.4	10.4	17.9	19.2	16.5
06/09/01	19.7	21.7	17.5	19.5	21.4	17.4	11.0	12.1	10.1	18.3	19.5	17.1
06/10/01	19.7	21.9	17.6	19.5	21.4	17.5	11.2	12.2	10.4	18.7	20.2	17.3
06/11/01	19.1	20.9	17.0	19.0	20.6	17.1	11.2	12.2	10.2	18.4	19.5	17.1
06/12/01	19.5	21.5	17.5	19.3	21.3	17.4	11.3	12.4	10.4	18.6	20.2	17.1
06/13/01	19.0	21.0	16.8	18.8	20.6	16.7	11.2	12.2	10.4	18.4	20.0	16.8
06/14/01	19.0	21.2	16.7	18.8	20.9	16.6	11.3	12.4	10.5	18.5	20.0	17.0
06/15/01	19.6	22.0	17.3	19.4	21.8	17.2	11.5	12.7	10.7	18.8	20.5	17.3
06/16/01	20.2	22.4	17.8	20.0	22.1	17.7	11.8	12.9	10.8	19.3	20.8	17.8
06/17/01	20.6	22.7	18.4	20.4	22.4	18.3	11.9	12.9	11.1	19.5	21.0	18.1
06/18/01	20.4	22.5	18.1	20.2	22.3	18.0	12.0	13.0	11.1	19.4	21.0	17.8
06/19/01	20.6	22.7	18.4	20.4	22.4	18.2	12.1	13.0	11.3	19.5	21.2	17.8
06/20/01	20.9	23.0	18.8	20.7	22.8	18.7	12.1	13.0	11.3	19.9	21.7	18.2
06/21/01	21.6	23.7	19.4	21.4	23.4	19.3	12.6	13.8	11.8	20.5	22.3	18.9
06/22/01	22.2	24.2	20.1	21.9	23.9	20.0	12.8	13.8	12.1	21.2	22.8	19.7
06/23/01	22.1	24.1	20.2	21.9	23.6	20.1	12.6	13.6	12.1	21.5	23.3	19.9
06/24/01	20.9	22.4	19.3	20.7	22.1	19.3	12.2	13.0	11.6	20.6	22.0	19.2
06/25/01	19.8	21.9	17.8	19.7	21.6	17.9	12.0	13.0	11.3	19.6	21.3	17.9
06/26/01	20.3	22.4	18.8	20.2	22.1	18.7	12.2	13.2	11.5	19.6	21.3	18.4
06/27/01	20.6	22.7	18.9	20.5	22.4	18.8	12.4	13.5	11.8	20.1	22.2	18.6
06/28/01	20.3	22.4	18.3	20.2	22.1	18.3	12.5	13.6	11.6	20.0	21.8	18.2
06/29/01	21.1	23.6	18.9	20.9	23.3	19.0	12.9	14.1	11.9	20.5	22.5	18.7
06/30/01	21.3	23.7	19.4	21.2	23.4	19.3	13.1	14.2	12.2	21.0	23.0	19.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR downstream of Dam 6			SJR upstream of Stevenson Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	21.3	23.7	19.3	21.2	23.4	19.1	13.3	14.4	12.4	21.3	23.3	19.5
07/02/01	21.7	24.2	19.6	21.6	23.9	19.5	13.5	14.7	12.7	21.8	23.7	20.0
07/03/01	22.4	24.8	20.4	22.3	24.6	20.4	13.7	14.9	12.9	22.6	24.7	20.8
07/04/01	22.4	23.2	21.5	22.2	23.1	21.4	13.7	14.6	13.3	22.8	23.9	22.0
07/05/01	22.3	24.4	20.6	22.3	24.3	20.4	13.8	14.9	13.0	23.0	24.9	21.5
07/06/01	21.4	22.7	20.7	21.3	22.6	20.6	13.5	13.8	13.3	22.3	23.3	21.8
07/07/01	20.9	21.9	20.1	20.8	21.8	20.0	13.7	14.2	13.3	22.0	23.2	21.2
07/08/01	21.1	23.2	19.3	21.0	23.1	19.1	13.9	14.9	13.2	22.3	23.9	20.8
07/09/01	21.7	23.9	19.9	21.6	23.8	19.8	13.8	14.7	13.0	22.7	24.6	21.0
07/10/01	21.4	23.6	19.6	21.3	23.3	19.5	13.8	14.7	13.0	22.0	23.3	20.5
07/11/01	21.2	23.2	19.6	21.1	23.1	19.5	13.7	14.6	13.0	21.7	23.5	20.2
07/12/01	20.5	22.5	18.4	20.4	22.3	18.3	13.5	14.6	12.7	21.4	23.0	19.7
07/13/01	20.5	22.5	18.8	20.3	22.3	18.7	13.7	14.7	13.0	21.2	23.0	19.7
07/14/01	20.4	22.7	18.6	20.2	22.4	18.3	13.8	14.7	13.2	21.2	23.2	19.5
07/15/01	19.8	22.0	17.8	19.7	21.9	17.7	13.7	14.7	12.9	20.7	22.5	19.1
07/16/01	19.8	21.7	18.1	19.6	21.6	17.9	13.8	14.7	13.2	20.5	22.0	18.9
07/17/01	19.7	21.9	18.0	19.6	21.8	17.9	13.6	14.6	12.9	20.5	22.3	18.9
07/18/01	19.9	22.2	18.1	19.8	21.9	18.0	13.7	14.7	12.9	20.7	22.5	19.1
07/19/01	19.9	22.2	18.1	19.8	21.9	17.9	13.6	14.7	12.9	20.7	22.5	19.1
07/20/01	19.9	22.2	18.0	19.8	22.1	17.9	13.7	14.9	12.9	20.6	22.5	18.9
07/21/01	19.9	22.2	18.1	19.7	21.9	17.9	13.6	14.6	12.9	20.5	22.3	18.9
07/22/01	19.8	22.0	17.8	19.6	21.9	17.7	13.8	14.9	13.0	20.4	22.3	18.7
07/23/01	19.9	22.2	17.8	19.7	21.9	17.7	13.9	14.9	13.2	20.5	22.3	18.7
07/24/01	20.3	22.5	18.3	20.1	22.3	18.2	13.9	14.9	13.0	20.8	22.7	19.1
07/25/01	21.0	23.0	19.1	20.8	22.9	19.0	14.1	15.2	13.3	21.3	23.0	19.7
07/26/01	21.8	24.1	20.1	21.6	23.8	19.8	14.4	15.5	13.6	22.1	23.9	20.5
07/27/01	21.6	23.7	19.6	21.4	23.6	19.5	14.2	15.3	13.5	21.8	23.3	20.4
07/28/01	21.1	23.2	19.1	20.9	23.1	18.8	14.0	15.0	13.2	21.2	23.0	19.7
07/29/01	20.6	22.9	18.4	20.4	22.6	18.3	13.9	14.9	13.2	20.9	22.7	19.2
07/30/01	20.2	22.2	18.4	20.0	21.9	18.2	14.0	15.0	13.3	20.6	22.0	19.1
07/31/01	20.5	22.7	18.8	20.3	22.6	18.5	14.3	15.3	13.5	20.8	22.5	19.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR downstream of Dam 6			SJR upstream of Stevenson Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	20.8	23.0	18.9	20.6	22.8	18.7	14.2	15.2	13.5	21.0	22.8	19.4
08/02/01	21.2	23.4	19.3	21.0	23.3	19.1	14.4	15.5	13.6	21.3	23.0	19.7
08/03/01	21.4	23.4	19.7	21.2	23.1	19.5	14.5	15.3	13.8	21.6	23.2	20.0
08/04/01	20.9	22.9	19.1	20.6	22.6	18.8	14.4	15.5	13.6	21.2	22.7	19.7
08/05/01	20.4	22.5	18.4	20.2	22.4	18.2	14.5	15.7	13.6	20.7	22.3	19.1
08/06/01	20.7	22.9	18.8	20.6	22.8	18.5	14.5	15.5	13.6	20.7	22.3	19.1
08/07/01	21.7	23.7	19.9	21.5	23.6	19.8	15.0	16.0	14.1	21.6	23.2	20.0
08/08/01	22.3	24.4	20.6	22.2	24.3	20.4	15.1	16.1	14.4	22.3	23.9	20.7
08/09/01	22.1	24.1	20.4	21.9	23.9	20.1	15.0	16.0	14.2	22.4	23.9	20.7
08/10/01	21.9	23.9	20.2	21.7	23.6	20.0	15.2	16.3	14.4	22.2	23.7	20.7
08/11/01	21.5	23.6	19.7	21.3	23.3	19.5	15.2	16.3	14.4	21.8	23.7	20.2
08/12/01	21.4	23.4	19.7	21.3	23.1	19.6	15.3	16.3	14.4	21.7	23.2	20.2
08/13/01	21.2	23.2	19.4	21.0	23.1	19.1	15.6	16.6	15.0	21.4	23.0	19.9
08/14/01	21.1	23.0	19.3	20.9	22.9	19.1	15.3	16.1	14.6	21.3	23.0	19.7
08/15/01	20.9	22.7	19.1	20.7	22.6	19.0	15.3	16.1	14.6	21.1	22.7	19.7
08/16/01	20.8	22.9	18.9	20.7	22.8	18.8	15.7	16.6	15.0	21.0	22.7	19.5
08/17/01	20.7	22.4	18.9	20.6	22.3	18.7	15.5	16.3	14.6	20.9	22.3	19.5
08/18/01	21.1	23.0	19.3	20.9	22.8	19.1	16.4	17.6	15.3	21.2	22.8	19.7
08/19/01	21.0	22.9	19.3	20.9	22.8	19.1	17.3	18.2	16.6	21.3	22.8	19.9
08/20/01	20.6	22.4	18.9	20.5	22.3	18.7	16.9	17.7	16.4	21.0	22.7	19.5
08/21/01	19.7	20.9	18.3	19.6	20.8	18.2	16.1	16.6	15.8	20.1	21.0	19.2
08/22/01	19.0	20.4	17.6	18.9	20.3	17.5	15.7	16.4	15.0	19.5	20.8	18.4
08/23/01	18.7	20.4	17.2	18.6	20.1	17.1	15.8	16.6	15.0	19.3	20.5	18.1
08/24/01	19.1	20.9	17.5	18.9	20.6	17.4	16.0	16.9	15.2	19.5	21.0	18.2
08/25/01	19.7	21.7	18.0	19.6	21.6	17.9	16.4	17.4	15.5	19.9	21.3	18.4
08/26/01	20.3	22.4	18.4	20.2	22.1	18.3	16.6	17.6	15.7	20.3	21.8	18.7
08/27/01	20.8	22.5	19.1	20.6	22.3	18.8	16.9	17.9	16.1	20.6	22.2	19.2
08/28/01	21.0	22.9	19.3	20.9	22.6	19.1	17.0	17.7	16.3	20.9	22.3	19.5
08/29/01	21.2	23.0	19.6	21.1	22.9	19.3	17.1	17.9	16.3	21.2	22.7	19.9
08/30/01	21.0	22.5	19.6	20.8	22.3	19.5	17.0	17.7	16.4	21.1	22.3	19.9
08/31/01	20.4	22.0	18.8	20.3	21.9	18.7	17.0	17.9	16.1	20.6	22.0	19.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR downstream of Dam 6			SJR upstream of Stevenson Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	20.4	22.0	18.6	20.2	21.9	18.5	17.6	18.4	16.6	20.4	21.8	19.1
09/02/01	20.4	22.2	18.4	20.2	21.9	18.3	18.0	18.7	17.2	20.3	21.8	18.9
09/03/01	20.7	21.9	19.3	20.6	21.8	19.1	18.0	18.7	17.4	20.7	21.8	19.5
09/04/01	20.6	22.4	18.8	20.5	22.3	18.7	17.6	18.4	16.9	20.9	22.5	19.5
09/05/01	20.9	22.5	19.3	20.7	22.4	19.1	17.5	18.2	16.8	21.1	22.5	19.9
09/06/01	19.7	21.0	18.0	19.5	20.9	17.9	17.6	20.1	16.4	20.0	21.2	18.7
09/07/01	19.3	20.9	17.6	19.2	20.8	17.5	17.4	17.9	16.8	19.7	21.0	18.6
09/08/01	19.2	20.7	17.5	19.1	20.6	17.4	16.9	17.4	16.4	19.4	20.8	18.1
09/09/01	19.1	20.9	17.3	19.0	20.6	17.2	16.8	17.6	16.3	19.2	20.7	17.9
09/10/01	19.1	20.7	17.5	19.0	20.6	17.4	17.3	18.4	16.4	19.3	20.7	18.1
09/11/01	19.3	19.9	18.8	19.2	19.8	18.7	17.7	18.0	17.2	19.5	20.2	19.1
09/12/01	19.0	20.6	17.3	18.8	20.4	17.2	17.5	18.2	16.9	19.2	20.4	18.1
09/13/01	18.9	20.4	17.2	18.7	20.3	17.1	17.3	18.0	16.6	18.9	20.0	17.6
09/14/01	18.8	20.4	17.0	18.6	20.1	16.9	17.4	18.2	16.8	18.8	20.0	17.4
09/15/01	18.6	20.2	16.8	18.5	20.0	16.9	17.4	18.0	16.8	18.7	19.9	17.4
09/16/01	18.5	20.1	16.8	18.4	19.8	16.7	17.2	17.9	16.8	18.6	19.7	17.4
09/17/01	18.6	20.2	17.0	18.5	20.0	16.7	17.3	18.0	16.8	18.6	19.7	17.4
09/18/01	18.9	20.6	17.3	18.8	20.4	17.2	17.3	17.9	16.8	18.8	20.0	17.6
09/19/01	19.1	20.6	17.5	18.9	20.4	17.4	17.4	18.2	16.8	18.9	20.2	17.6
09/20/01	19.2	20.7	17.6	19.1	20.6	17.5	17.7	18.4	17.1	19.0	20.4	17.9
09/21/01	19.2	20.6	17.6	19.0	20.3	17.5	17.8	18.5	17.2	18.8	20.0	17.6
09/22/01	19.0	20.1	17.6	18.9	20.0	17.5	17.7	18.2	17.1	18.8	19.9	17.8
09/23/01	18.6	19.4	17.3	18.4	19.3	17.2	17.4	17.9	16.9	18.4	19.5	17.4
09/24/01	18.1	19.6	16.4	18.0	19.5	16.3	17.4	18.0	16.8	18.1	19.5	17.0
09/25/01	19.3	20.9	18.3	19.1	20.6	18.2	17.7	18.2	17.2	18.9	20.4	18.1
09/26/01	18.6	19.7	17.2	18.5	19.6	17.1	17.4	18.0	16.8	18.7	19.9	17.6
09/27/01	18.2	19.4	16.8	18.1	19.3	16.7	17.4	18.0	16.8	18.2	19.4	17.1
09/28/01	17.8	18.9	16.5	17.7	18.8	16.4	17.3	17.9	16.8	18.0	19.1	17.0
09/29/01	17.4	18.6	16.2	17.3	18.5	16.1	17.3	17.9	16.8	17.5	18.7	16.5
09/30/01	17.3	18.6	15.7	17.3	18.7	15.8	17.6	18.4	16.9	17.5	18.7	16.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SJR upstream of Ross Creek			SJR upstream of MPPH			SJR downstream of Dam 6			SJR upstream of Stevenson Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	18.1	19.7	16.5	18.0	19.6	16.4	17.9	18.5	17.4	18.0	19.5	16.8
10/02/01	18.3	19.4	17.2	18.2	19.3	17.1	17.9	18.4	17.2	18.4	19.4	17.4
10/03/01	18.4	19.6	17.0	18.4	19.5	17.1	18.0	18.7	17.4	18.5	19.5	17.6
10/04/01	18.5	19.6	17.2	18.4	19.5	17.1	17.9	18.5	17.4	18.6	19.7	17.6
10/05/01	18.3	19.1	17.6	18.1	19.1	17.5	17.6	18.0	17.4	18.4	19.1	17.8
10/06/01	17.2	18.0	16.2	17.1	18.0	16.1	17.3	17.7	16.9	17.6	18.4	16.8
10/07/01	16.6	17.6	15.4	16.5	17.7	15.3	17.3	17.9	16.8	17.0	18.1	16.2
10/08/01	16.7	17.5	15.7	16.6	17.5	15.6	17.6	18.2	17.1	17.0	18.1	16.3
10/09/01	16.4	17.5	15.3	16.3	17.4	15.2	17.8	18.4	17.4	16.7	17.8	15.9
10/10/01	15.8	16.8	14.6	15.7	16.7	14.5	17.6	18.0	17.1	16.3	17.3	15.4
10/11/01	15.3	15.9	14.6	15.3	15.9	14.5	17.4	17.9	17.1	16.0	16.8	15.4
10/12/01	15.1	16.2	14.0	15.1	16.1	13.9	17.2	17.7	16.9	15.7	16.8	14.7
10/13/01	15.0	16.2	13.7	15.0	16.1	13.7	17.1	17.6	16.6	15.6	16.6	14.6
10/14/01	15.2	16.4	13.8	15.1	16.4	13.9	16.8	17.4	16.3	15.6	16.6	14.7
10/15/01	15.1	16.2	13.8	15.1	16.3	13.9	16.8	17.4	16.3	15.6	16.5	14.7
10/16/01	15.0	15.9	13.8	15.0	15.9	13.9	16.7	17.2	16.3	15.5	16.2	14.7
10/17/01	14.9	15.6	14.0	14.9	15.6	13.9	16.5	16.9	16.1	15.6	16.3	14.9
10/18/01	14.9	15.9	13.7	14.8	15.8	13.7	16.3	16.8	15.8	15.5	16.3	14.7
10/19/01	14.7	15.3	13.7	14.7	15.3	13.7	16.1	16.4	15.8	15.4	16.0	14.7
10/20/01	14.8	15.6	13.5	14.7	15.6	13.6	16.1	16.6	15.7	15.3	16.0	14.6
10/21/01	14.6	15.4	13.5	14.6	15.5	13.6	16.1	16.6	15.7	15.4	16.3	14.6
10/22/01	14.2	14.9	13.1	14.2	15.0	13.1	15.8	16.3	15.3	15.1	15.7	14.4
10/23/01	14.1	14.9	13.1	14.1	15.0	13.1	15.5	16.0	15.2	14.9	15.5	14.1
10/24/01	13.9	14.5	12.9	13.8	14.5	12.8	15.3	15.7	14.9	14.6	15.1	14.1
10/25/01	13.5	14.3	12.3	13.5	14.4	12.4	15.3	15.8	14.9	14.2	14.7	13.5
10/26/01	13.4	14.2	12.3	13.3	14.2	12.4	15.2	15.7	14.9	14.1	14.7	13.3
10/27/01	13.2	13.8	12.3	13.2	13.9	12.4	15.0	15.5	14.7	14.1	14.7	13.5
10/28/01	13.2	13.8	12.1	13.1	13.9	12.2	14.9	15.3	14.6	13.9	14.4	13.3
10/29/01	13.2	13.5	12.6	13.1	13.4	12.5	14.8	15.0	14.6	14.0	14.4	13.5
10/30/01	13.4	13.5	13.2	13.3	13.4	13.1	14.7	14.9	14.6	14.1	14.4	13.7
10/31/01	13.0	13.5	11.8	12.9	13.6	11.9	14.5	14.9	14.1	13.7	14.0	13.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SJR downstream of PH 3			Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	9.6	10.7	8.7	8.9	9.2	8.6	10.0	11.9	9.2
05/02/01	9.4	10.1	8.8	8.8	9.0	8.6	10.1	11.6	9.5
05/03/01	8.8	9.7	8.1	8.6	9.0	8.3	10.2	10.6	9.5
05/04/01	8.1	8.7	7.9	8.6	9.4	8.3	10.1	10.9	9.7
05/05/01	8.1	8.7	7.9	8.5	8.9	8.3	10.4	11.7	9.4
05/06/01	8.2	8.7	7.9	8.4	8.9	8.1	10.5	12.2	9.1
05/07/01	8.4	9.1	8.1	8.5	9.0	8.1	10.5	13.3	9.1
05/08/01	8.6	10.1	8.2	8.7	9.5	8.3	11.0	13.3	8.9
05/09/01	8.7	9.7	8.4	8.8	9.4	8.6	10.7	11.9	9.2
05/10/01	8.8	10.1	8.4	8.9	9.4	8.6	10.3	11.4	9.4
05/11/01	8.9	10.4	8.4	9.0	9.4	8.7	10.8	12.5	9.5
05/12/01	8.7	9.6	8.4	8.8	9.4	8.6	10.7	11.2	9.9
05/13/01	8.7	9.7	8.4	8.8	9.2	8.6	9.8	10.8	9.5
05/14/01	9.2	10.4	8.4	8.9	9.4	8.6	10.5	12.5	9.5
05/15/01	9.3	10.4	8.5	8.9	9.4	8.4	10.2	11.9	9.2
05/16/01	9.7	10.8	8.7	8.9	9.4	8.4	10.1	11.4	9.2
05/17/01	9.9	11.0	9.3	8.9	9.2	8.6	10.2	12.5	9.4
05/18/01	9.9	10.8	9.1	9.0	9.4	8.6	11.2	15.6	9.7
05/19/01	10.0	11.0	9.1	9.1	9.4	8.9	11.2	16.1	9.7
05/20/01	10.3	11.5	9.3	9.5	10.0	9.0	11.6	15.4	10.0
05/21/01	10.5	11.5	9.6	9.6	10.0	9.2	11.0	13.3	10.0
05/22/01	10.7	11.8	9.9	9.7	10.1	9.4	12.9	16.5	10.3
05/23/01	10.8	11.9	9.9	9.8	11.5	9.4	12.4	16.2	10.2
05/24/01	9.9	10.5	9.3	9.6	10.6	9.2	12.5	15.6	10.3
05/25/01	9.4	9.9	9.1	9.8	10.1	9.5	11.7	14.5	10.5
05/26/01	9.5	9.9	9.1	9.7	10.1	9.4	12.0	15.1	10.2
05/27/01	10.2	11.1	9.4	10.2	10.9	9.7	11.8	14.3	10.3
05/28/01	10.1	10.5	9.7	10.4	10.6	10.0	11.5	13.3	10.9
05/29/01	10.0	10.5	9.6	10.2	10.4	9.8	11.4	12.3	10.8
05/30/01	10.3	10.8	9.7	10.2	10.6	9.8	11.5	13.0	10.8
05/31/01	10.5	11.6	10.1	10.4	10.9	10.1	11.4	15.1	10.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SJR downstream of PH 3			Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	10.5	11.0	10.1	10.5	10.9	10.3	12.9	17.2	10.9
06/02/01	10.2	10.5	9.9	10.5	10.8	10.3	11.7	13.0	10.9
06/03/01	10.1	10.5	9.4	10.4	10.8	10.1	11.8	13.6	10.9
06/04/01	10.4	11.1	10.1	10.5	10.9	10.1	11.9	13.3	11.1
06/05/01	10.8	11.8	9.9	10.6	11.1	10.3	12.0	13.7	11.2
06/06/01	11.0	12.1	10.1	10.5	11.2	10.0	12.0	13.9	11.2
06/07/01	11.2	12.4	10.2	10.6	11.7	10.3	11.9	13.3	11.2
06/08/01	11.2	12.4	10.4	11.7	16.4	10.6	13.2	17.0	11.2
06/09/01	11.0	12.1	10.1	11.4	16.2	10.4	12.8	16.5	11.4
06/10/01	11.2	12.2	10.4	10.8	13.5	10.4	12.2	15.4	11.6
06/11/01	11.2	12.2	10.2	11.6	16.4	10.3	12.4	15.4	11.6
06/12/01	11.3	12.4	10.4	11.5	15.6	10.4	12.1	13.4	11.6
06/13/01	11.2	12.2	10.4	13.2	17.3	10.9	12.7	16.1	11.7
06/14/01	11.3	12.4	10.5	12.6	17.0	11.1	13.4	16.7	11.7
06/15/01	11.5	12.7	10.7	12.9	17.0	11.1	14.0	16.7	11.9
06/16/01	11.8	12.9	10.8	13.2	17.5	11.4	14.0	16.2	12.0
06/17/01	11.9	12.9	11.1	13.1	17.5	11.4	14.2	16.5	12.0
06/18/01	12.0	13.0	11.1	13.1	17.2	11.5	14.4	16.7	12.2
06/19/01	12.1	13.0	11.3	13.3	17.5	11.7	14.5	16.7	12.3
06/20/01	12.1	13.0	11.3	14.3	18.3	11.8	14.5	16.9	12.5
06/21/01	12.6	13.8	11.8	14.8	18.9	12.1	14.7	17.0	12.6
06/22/01	12.8	13.8	12.1	15.2	19.3	12.3	14.9	17.7	12.8
06/23/01	12.6	13.6	12.1	15.5	19.3	12.1	14.4	18.0	13.1
06/24/01	12.2	13.0	11.6	16.2	19.4	12.6	14.1	14.8	13.3
06/25/01	12.0	13.0	11.3	15.1	19.4	12.3	15.1	18.6	13.0
06/26/01	12.2	13.2	11.5	16.5	19.4	12.8	13.9	14.8	13.4
06/27/01	12.4	13.5	11.8	16.6	20.4	13.2	14.5	16.2	13.7
06/28/01	12.5	13.6	11.6	17.4	21.1	12.8	14.4	15.1	13.4
06/29/01	12.9	14.1	11.9	17.9	21.7	13.2	14.3	15.1	13.9
06/30/01	13.1	14.2	12.2	18.0	21.6	13.5	14.8	16.7	13.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

	SJR downstream of PH 3			Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	13.3	14.4	12.4	17.6	21.4	13.4	15.7	20.4	13.9
07/02/01	13.5	14.7	12.7	18.1	21.6	13.7	15.5	20.1	14.0
07/03/01	13.7	14.9	12.9	18.7	23.2	13.7	15.5	20.1	14.3
07/04/01	13.7	14.6	13.3	19.0	23.2	13.7	16.0	22.1	14.3
07/05/01	13.8	14.9	13.0	21.6	23.7	17.5	15.5	17.3	14.5
07/06/01	13.5	13.8	13.3	20.8	23.1	15.6	15.6	17.5	14.8
07/07/01	13.7	14.2	13.3	19.1	22.1	15.1	15.2	16.5	14.8
07/08/01	13.9	14.9	13.2	19.1	23.4	14.0	15.9	21.4	14.3
07/09/01	13.8	14.7	13.0	16.9	23.6	13.1	17.0	22.4	14.8
07/10/01	13.8	14.7	13.0	17.2	23.1	13.2	15.8	18.9	14.7
07/11/01	13.7	14.6	13.0	18.4	22.7	13.5	15.6	17.2	14.7
07/12/01	13.5	14.6	12.7	17.5	21.9	13.5	15.8	16.7	14.8
07/13/01	13.7	14.7	13.0	17.2	21.9	14.0	15.5	17.0	15.0
07/14/01	13.8	14.7	13.2	18.4	21.2	14.2	15.9	20.6	14.7
07/15/01	13.7	14.7	12.9	18.5	21.2	14.9	17.1	20.7	14.7
07/16/01	13.8	14.7	13.2	19.4	21.1	14.8	16.0	17.0	15.3
07/17/01	13.6	14.6	12.9	19.4	21.4	14.5	16.0	17.0	15.1
07/18/01	13.7	14.7	12.9	19.5	21.4	14.5	16.0	16.9	15.3
07/19/01	13.6	14.7	12.9	18.7	21.4	14.5	16.6	20.6	15.0
07/20/01	13.7	14.9	12.9	19.3	21.6	14.9	16.6	20.2	15.3
07/21/01	13.6	14.6	12.9	20.1	21.6	17.5	16.5	19.8	15.3
07/22/01	13.8	14.9	13.0	19.9	21.2	17.8	16.6	20.1	15.3
07/23/01	13.9	14.9	13.2	18.6	21.2	14.8	17.5	20.6	15.4
07/24/01	13.9	14.9	13.0	19.2	22.1	14.5	17.1	20.6	15.8
07/25/01	14.1	15.2	13.3	19.6	22.6	14.8	17.0	20.6	15.8
07/26/01	14.4	15.5	13.6	20.0	23.2	14.8	16.8	18.1	15.8
07/27/01	14.2	15.3	13.5	18.6	22.4	14.5	18.2	21.6	15.6
07/28/01	14.0	15.0	13.2	19.4	22.2	14.9	18.3	20.9	15.4
07/29/01	13.9	14.9	13.2	20.5	22.4	16.5	17.7	20.2	15.8
07/30/01	14.0	15.0	13.3	19.7	21.9	14.8	17.3	18.6	16.1
07/31/01	14.3	15.3	13.5	19.8	22.4	14.8	17.1	18.6	16.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SJR downstream of PH 3			Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	14.2	15.2	13.5	19.0	22.7	14.3	17.1	17.8	16.1
08/02/01	14.4	15.5	13.6	18.8	22.9	14.5	17.1	20.9	15.8
08/03/01	14.5	15.3	13.8	18.6	22.7	14.6	16.7	18.0	16.1
08/04/01	14.4	15.5	13.6	19.0	22.4	14.9	16.6	17.8	15.6
08/05/01	14.5	15.7	13.6	19.1	21.9	15.1	17.3	20.7	15.8
08/06/01	14.5	15.5	13.6	18.6	21.9	14.9	16.7	18.0	16.1
08/07/01	15.0	16.0	14.1	18.5	22.2	15.1	16.9	17.8	15.9
08/08/01	15.1	16.1	14.4	18.8	22.9	15.1	16.7	17.7	15.9
08/09/01	15.0	16.0	14.2	17.2	23.4	14.9	16.8	19.4	16.1
08/10/01	15.2	16.3	14.4	18.4	22.1	15.6	16.6	18.0	15.9
08/11/01	15.2	16.3	14.4	19.5	22.4	15.9	17.0	18.1	16.4
08/12/01	15.3	16.3	14.4	18.5	22.1	15.7	17.1	18.6	16.4
08/13/01	15.6	16.6	15.0	18.6	21.7	15.6	17.2	18.6	16.5
08/14/01	15.3	16.1	14.6	18.5	22.1	15.6	17.2	18.0	16.7
08/15/01	15.3	16.1	14.6	18.0	22.4	15.4	17.2	18.8	16.5
08/16/01	15.7	16.6	15.0	18.3	21.7	15.9	17.9	21.6	16.7
08/17/01	15.5	16.3	14.6	16.6	21.7	15.1	18.5	21.1	16.7
08/18/01	16.4	17.6	15.3	18.7	21.1	15.9	18.0	20.7	16.4
08/19/01	17.3	18.2	16.6	18.9	20.9	17.6	18.7	20.7	17.0
08/20/01	16.9	17.7	16.4	18.4	20.6	17.0	18.6	19.6	18.0
08/21/01	16.1	16.6	15.8	18.2	20.2	16.5	18.5	19.6	18.0
08/22/01	15.7	16.4	15.0	18.3	20.7	16.5	18.4	19.1	17.8
08/23/01	15.8	16.6	15.0	18.1	20.7	15.9	18.4	18.9	18.0
08/24/01	16.0	16.9	15.2	18.1	20.6	16.4	18.2	18.8	17.5
08/25/01	16.4	17.4	15.5	19.3	21.1	17.3	18.1	18.6	17.7
08/26/01	16.6	17.6	15.7	19.2	21.9	17.0	18.2	19.1	17.8
08/27/01	16.9	17.9	16.1	19.2	21.9	17.3	18.3	20.6	17.8
08/28/01	17.0	17.7	16.3	18.5	21.1	17.2	18.7	20.7	18.0
08/29/01	17.1	17.9	16.3	18.6	21.7	17.2	19.0	21.4	18.0
08/30/01	17.0	17.7	16.4	20.2	22.1	17.8	18.6	19.9	18.0
08/31/01	17.0	17.9	16.1	19.7	22.1	17.6	19.0	20.1	18.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SJR downstream of PH 3			Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	17.6	18.4	16.6	19.6	21.9	18.5	19.2	20.7	18.3
09/02/01	18.0	18.7	17.2	19.4	21.2	18.5	19.9	21.4	18.8
09/03/01	18.0	18.7	17.4	20.1	21.6	18.8	20.2	21.7	18.9
09/04/01	17.6	18.4	16.9	19.4	21.7	17.8	20.8	21.7	19.3
09/05/01	17.5	18.2	16.8	20.1	21.9	17.8	20.3	21.1	19.3
09/06/01	17.6	20.1	16.4	19.7	21.7	17.6	19.9	20.6	19.1
09/07/01	17.4	17.9	16.8	19.6	21.6	17.6	19.9	20.9	19.1
09/08/01	16.9	17.4	16.4	20.5	21.9	18.3	19.6	20.9	18.9
09/09/01	16.8	17.6	16.3	19.5	21.9	16.7	19.6	20.7	18.6
09/10/01	17.3	18.4	16.4	19.8	21.6	17.6	19.6	20.7	18.9
09/11/01	17.7	18.0	17.2	19.7	21.4	18.3	19.9	21.1	19.4
09/12/01	17.5	18.2	16.9	19.9	21.4	18.0	19.6	20.9	19.1
09/13/01	17.3	18.0	16.6	19.5	21.2	18.0	20.1	20.7	19.1
09/14/01	17.4	18.2	16.8	19.6	20.9	18.3	19.8	20.6	19.1
09/15/01	17.4	18.0	16.8	19.2	20.9	18.1	20.1	20.4	19.3
09/16/01	17.2	17.9	16.8	20.3	21.1	19.4	20.0	20.2	19.1
09/17/01	17.3	18.0	16.8	20.7	21.2	19.8	19.9	20.2	19.6
09/18/01	17.3	17.9	16.8	20.0	21.1	18.0	19.9	20.4	19.8
09/19/01	17.4	18.2	16.8	19.6	21.1	18.3	20.1	20.4	19.3
09/20/01	17.7	18.4	17.1	19.6	21.1	18.5	20.1	20.4	19.3
09/21/01	17.8	18.5	17.2	19.6	20.7	18.5	19.9	20.6	18.9
09/22/01	17.7	18.2	17.1	19.3	20.7	18.5	20.0	20.6	19.3
09/23/01	17.4	17.9	16.9	19.9	20.9	18.5	19.9	20.6	19.3
09/24/01	17.4	18.0	16.8	19.1	20.7	17.8	20.0	20.4	19.3
09/25/01	17.7	18.2	17.2	F	F	F	19.9	20.1	19.4
09/26/01	17.4	18.0	16.8	F	F	F	19.9	20.4	19.4
09/27/01	17.4	18.0	16.8	F	F	F	20.3	20.7	19.6
09/28/01	17.3	17.9	16.8	F	F	F	F	F	F
09/29/01	17.3	17.9	16.8	F	F	F	F	F	F
09/30/01	17.6	18.4	16.9	F	F	F	F	F	F

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, 2001

Date	SJR downstream of PH 3			Lake Redinger at Italian Bar Bridge			Tunnel 4 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	17.9	18.5	17.4	F	F	F	F	F	F
10/02/01	17.9	18.4	17.2	F	F	F	F	F	F
10/03/01	18.0	18.7	17.4	F	F	F	F	F	F
10/04/01	17.9	18.5	17.4	F	F	F	F	F	F
10/05/01	17.6	18.0	17.4	F	F	F	F	F	F
10/06/01	17.3	17.7	16.9	F	F	F	F	F	F
10/07/01	17.3	17.9	16.8	F	F	F	F	F	F
10/08/01	17.6	18.2	17.1	F	F	F	F	F	F
10/09/01	17.8	18.4	17.4	F	F	F	19.3	20.1	19.1
10/10/01	17.6	18.0	17.1	F	F	F	19.1	19.4	18.9
10/11/01	17.4	17.9	17.1	F	F	F	19.0	19.1	18.9
10/12/01	17.2	17.7	16.9	F	F	F	18.9	19.1	18.8
10/13/01	17.1	17.6	16.6	F	F	F	18.9	19.1	18.8
10/14/01	16.8	17.4	16.3	F	F	F	18.8	18.9	18.6
10/15/01	16.8	17.4	16.3	F	F	F	18.7	18.9	18.6
10/16/01	16.7	17.2	16.3	F	F	F	18.7	18.8	18.6
10/17/01	16.5	16.9	16.1	F	F	F	18.6	18.8	18.5
10/18/01	16.3	16.8	15.8	F	F	F	18.5	18.6	18.5
10/19/01	16.1	16.4	15.8	F	F	F	18.5	18.6	18.3
10/20/01	16.1	16.6	15.7	18.9	19.6	18.5	18.5	18.6	18.3
10/21/01	16.1	16.6	15.7	18.9	19.3	18.5	18.4	18.5	18.3
10/22/01	15.8	16.3	15.3	18.7	19.1	18.5	18.3	18.5	18.3
10/23/01	15.5	16.0	15.2	18.5	18.6	18.0	18.3	18.5	18.1
10/24/01	15.3	15.7	14.9	18.3	18.8	17.6	18.2	18.3	18.1
10/25/01	15.3	15.8	14.9	18.2	18.8	17.6	18.1	18.3	18.0
10/26/01	15.2	15.7	14.9	17.9	18.6	16.8	18.0	18.1	17.8
10/27/01	15.0	15.5	14.7	18.0	18.5	17.5	17.9	18.0	17.8
10/28/01	14.9	15.3	14.6	17.9	18.1	17.3	17.7	17.8	17.7
10/29/01	14.8	15.0	14.6	17.0	17.6	14.9	17.7	17.8	17.7
10/30/01	14.7	14.9	14.6	17.2	17.6	16.1	17.6	17.7	17.5
10/31/01	14.5	14.9	14.1				17.4	17.5	17.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Rock Creek Diversion			Rock Crk upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Rock Creek Diversion			Rock Crk upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00												
06/15/00												
06/16/00	18.68	21.29	15.50	19.36	21.94	17.06						
06/17/00	17.84	20.63	14.71	18.22	20.94	14.99						
06/18/00	17.51	20.14	15.18	17.92	20.61	15.15						
06/19/00	17.10	19.66	13.32	17.59	20.12	14.83						
06/20/00	17.43	20.47	13.93	18.15	21.27	14.99						
06/21/00	17.70	20.47	14.08	18.29	21.11	15.15						
06/22/00	17.98	20.63	15.02	18.45	21.11	15.78	18.96	22.84	15.71	11.52	12.30	11.06
06/23/00	17.16	19.82	12.69	17.53	20.28	14.52	18.18	22.18	14.61	11.47	12.14	10.91
06/24/00	17.11	19.82	13.93	17.49	20.28	14.36	18.11	22.18	14.29	11.64	12.46	11.06
06/25/00	17.39	19.98	14.24	17.79	20.61	14.83	18.51	22.68	14.76	11.78	12.61	11.21
06/26/00	17.28	20.14	13.93	17.67	20.61	14.67	18.31	22.51	14.45	11.93	12.61	11.37
06/27/00	17.34	20.14	14.24	18.08	20.94	14.83	18.76	22.84	14.92	12.10	12.61	11.52
06/28/00	18.35	20.96	15.34	18.97	21.77	16.42	19.75	23.86	16.51	12.35	13.08	11.83
06/29/00	18.20	20.96	14.55	18.70	21.44	15.78	19.64	23.69	16.03	12.43	13.23	11.83
06/30/00	18.03	20.63	15.02	18.47	20.94	16.42	19.32	23.52	16.19	12.48	13.23	11.83

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Rock Creek Diversion			Rock Crk upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	16.44	19.01	13.16	16.35	18.83	13.89	17.54	21.84	14.14	12.28	12.92	11.83
07/02/00	15.53	18.21	13.01	15.59	18.66	12.51	16.62	21.02	12.75	12.43	13.23	11.83
07/03/00	15.36	17.88	13.32	15.67	18.02	12.97	16.17	20.20	12.91	F	F	F
07/04/00	14.52	17.08	12.07	16.10	17.37	14.67	15.40	19.72	11.67	F	F	F
07/05/00	14.51	17.08	12.23	16.28	17.69	14.99	15.56	19.88	11.97	F	F	F
07/06/00	14.79	17.56	12.38	16.65	18.18	15.15	15.82	20.20	12.13	F	F	F
07/07/00	15.04	17.72	12.54	17.08	18.50	15.78	16.13	20.52	12.44	F	F	F
07/08/00	15.13	17.88	12.54	17.20	18.66	15.78	16.25	20.69	12.44	F	F	F
07/09/00	15.49	18.21	13.01	17.57	19.15	16.10	16.56	21.02	12.59	F	F	F
07/10/00	15.94	18.53	13.47	17.98	19.48	16.58	17.08	21.51	13.21	F	F	F
07/11/00	16.70	19.33	14.24	18.59	20.12	17.06	17.83	22.01	14.14	F	F	F
07/12/00	17.02	19.82	14.55	19.01	20.61	17.69	18.31	23.01	14.45	F	F	F
07/13/00	16.62	19.33	13.77	18.74	20.12	17.22	18.17	22.68	14.14	F	F	F
07/14/00	16.88	19.33	14.24	18.93	20.28	17.53	18.57	22.84	14.76	F	F	F
07/15/00	17.15	19.66	14.71	19.11	20.61	17.69	18.68	23.01	15.08	F	F	F
07/16/00	17.23	19.66	15.18	19.11	20.44	18.02	18.46	22.34	15.56	F	F	F
07/17/00	16.71	19.17	14.24	18.55	19.80	17.22	18.01	22.18	14.45	F	F	F
07/18/00	16.65	19.01	13.93	18.48	19.80	17.06	18.24	22.68	14.29	F	F	F
07/19/00	16.59	18.85	13.93	18.45	19.80	17.06	18.75	22.84	15.08	F	F	F
07/20/00	16.74	19.17	13.93	18.54	19.96	17.06	19.17	23.18	15.56	F	F	F
07/21/00	17.34	19.66	14.71	19.05	20.61	17.69	19.72	23.86	16.03	F	F	F
07/22/00	17.46	19.82	14.87	19.29	20.77	17.86	19.55	23.52	16.19	F	F	F
07/23/00	17.34	19.66	14.71	19.19	20.61	17.69	19.15	23.18	15.56	F	F	F
07/24/00	17.45	19.66	15.02	19.19	20.61	17.86	19.37	23.35	16.03	F	F	F
07/25/00	17.39	19.66	15.02	19.09	20.44	17.69	19.70	23.86	16.34	F	F	F
07/26/00	17.36	19.66	15.02	19.04	20.44	17.69	20.19	24.21	16.98	F	F	F
07/27/00	16.97	19.33	14.39	18.70	20.12	17.37	19.95	24.03	16.51	F	F	F
07/28/00	16.77	19.01	14.08	18.48	19.80	17.06	19.97	23.86	16.51	F	F	F
07/29/00	17.27	19.33	14.87	18.68	19.96	17.37	20.57	24.21	17.14	F	F	F
07/30/00	18.42	20.47	16.13	19.61	20.94	18.34	21.68	25.08	18.42	F	F	F
07/31/00	19.17	21.12	17.08	20.24	21.44	19.15	22.19	25.60	19.07	F	F	F

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Rock Creek Diversion			Rock Crk upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	20.06	21.79	18.37	21.04	22.11	20.12	22.19	23.69	20.52	F	F	F
08/02/00	19.68	20.63	18.21	20.90	21.61	20.28	21.94	23.01	20.69	F	F	F
08/03/00	19.69	21.46	18.21	20.82	21.77	20.12	22.09	23.35	20.52	F	F	F
08/04/00	19.67	21.96	17.72	20.77	21.94	19.64	22.27	24.21	20.69	F	F	F
08/05/00	19.36	21.62	17.24	20.46	21.61	19.31	22.80	25.94	19.88	F	F	F
08/06/00	18.92	21.12	16.92	20.01	21.11	18.99	22.23	24.73	19.56	F	F	F
08/07/00	18.44	20.63	16.44	19.48	20.61	18.50	21.44	23.18	19.07	F	F	F
08/08/00	17.87	20.14	15.82	18.87	19.96	17.69	20.89	22.51	18.42	F	F	F
08/09/00	17.46	19.82	15.34	18.48	19.64	17.37	20.55	22.34	18.10	F	F	F
08/10/00	16.87	19.17	14.71	17.96	19.15	16.89	20.11	21.84	17.46	F	F	F
08/11/00	16.46	18.85	14.24	17.41	18.50	16.26	19.85	21.68	17.30	F	F	F
08/12/00	16.87	19.33	14.71	17.75	18.99	16.58	20.10	22.18	17.78	F	F	F
08/13/00	16.68	19.17	14.55	17.62	18.83	16.58	19.90	22.18	17.78	F	F	F
08/14/00	16.31	18.85	14.08	17.17	18.34	15.94	19.44	22.34	16.98	F	F	F
08/15/00	16.92	19.66	14.87	17.65	18.99	16.42	19.82	23.52	17.46	F	F	F
08/16/00	17.16	19.82	15.18	17.85	19.15	16.73	19.65	24.21	16.82	F	F	F
08/17/00	17.21	19.82	15.34	17.89	18.99	16.89	19.40	24.21	16.19	F	F	F
08/18/00	16.57	19.17	14.55	17.26	18.34	16.26	18.89	24.03	15.71	F	F	F
08/19/00	15.39	18.04	13.32	16.08	17.06	14.99	17.96	23.18	14.45	F	F	F
08/20/00	15.11	17.72	13.01	15.77	16.89	14.67	17.73	22.68	13.98	F	F	F
08/21/00	15.29	17.88	13.32	15.93	17.06	14.83	18.02	23.01	14.45	F	F	F
08/22/00	15.54	18.21	13.47	16.18	17.37	14.99	18.30	23.18	14.61	F	F	F
08/23/00	15.69	18.37	13.77	16.34	17.53	15.31	18.41	23.18	14.76	F	F	F
08/24/00	15.78	18.53	13.62	16.36	17.37	15.15	18.76	23.52	15.24	F	F	F
08/25/00	16.96	19.49	15.18	17.46	18.66	16.42	20.03	24.21	17.14	F	F	F
08/26/00	18.27	20.63	16.92	18.66	19.80	17.86	20.92	25.25	18.74	F	F	F
08/27/00	17.99	20.31	16.13	18.38	19.31	17.37	20.38	24.91	17.46	F	F	F
08/28/00	17.86	19.98	16.29	18.32	19.15	17.37	20.42	24.21	17.30	F	F	F
08/29/00	17.24	17.72	16.61	17.95	18.34	17.37	19.47	20.36	18.42	F	F	F
08/30/00	16.67	17.56	15.97	17.37	17.86	17.06	19.19	21.02	17.78	F	F	F
08/31/00	16.05	17.56	14.87	16.81	17.53	16.10	18.63	22.34	16.03	F	F	F

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Rock Creek Diversion			Rock Crk upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	14.38	15.66	13.32	15.65	16.42	14.83	16.78	17.62	15.71	F	F	F
09/02/00	14.01	15.66	12.54	15.18	16.10	14.36	17.14	19.39	15.24	F	F	F
09/03/00	13.92	15.18	12.69	15.23	15.94	14.67	16.56	17.94	15.08	F	F	F
09/04/00	13.05	14.39	11.61	14.37	14.83	13.59	15.67	17.46	13.98	F	F	F
09/05/00	12.51	14.55	10.68	13.59	14.36	12.66	15.36	18.26	13.06	F	F	F
09/06/00	12.45	14.55	10.53	13.26	14.05	12.35	15.31	18.42	12.75	F	F	F
09/07/00	12.61	14.87	10.68	13.31	14.21	12.35	15.99	18.91	13.52	F	F	F
09/08/00	13.10	15.34	11.45	13.73	14.67	12.82	16.49	18.74	14.29	F	F	F
09/09/00	13.17	15.34	11.45	13.77	14.52	12.82	16.77	19.07	14.92	F	F	F
09/10/00	13.55	15.82	11.92	14.09	14.99	13.13	16.88	19.56	14.61	F	F	F
09/11/00	13.88	16.13	12.23	14.45	15.31	13.59	17.07	20.52	14.76	F	F	F
09/12/00	13.62	15.18	12.07	14.28	18.18	13.28	D	D	D	F	F	F
09/13/00	14.70	16.61	13.32	15.25	16.10	14.36	D	D	D	F	F	F
09/14/00	15.60	17.88	14.08	16.15	17.06	15.15	D	D	D	F	F	F
09/15/00	16.04	18.04	14.55	16.64	17.53	15.78	D	D	D	F	F	F
09/16/00	15.53	17.40	13.93	16.17	16.89	15.31	D	D	D	F	F	F
09/17/00	15.06	17.08	13.47	15.71	16.58	14.83	D	D	D	F	F	F
09/18/00	15.21	17.24	13.77	15.73	16.58	14.83	D	D	D	F	F	F
09/19/00	15.53	17.40	14.08	16.02	16.73	15.15	D	D	D	F	F	F
09/20/00	15.98	17.88	14.55	16.48	17.37	15.62	D	D	D	F	F	F
09/21/00	16.06	17.72	14.87	16.52	17.22	15.94	D	D	D	F	F	F
09/22/00	14.69	15.50	13.62	15.48	16.26	14.67	D	D	D	F	F	F
09/23/00	12.88	13.93	11.76	13.85	14.67	13.28	D	D	D	F	F	F
09/24/00	12.75	14.39	11.30	13.53	14.21	12.66	D	D	D	F	F	F
09/25/00	12.90	14.55	11.61	13.62	14.36	12.97	D	D	D	F	F	F
09/26/00	12.78	14.39	11.45	13.47	14.21	12.66	D	D	D	F	F	F
09/27/00	12.85	14.55	11.61	13.48	14.21	12.66	D	D	D	F	F	F
09/28/00	13.06	14.55	11.92	13.66	14.36	12.97	D	D	D	F	F	F
09/29/00	13.08	14.71	11.92	13.72	14.36	12.97	D	D	D	F	F	F
09/30/00	13.56	15.02	12.38	14.03	14.83	13.28	D	D	D	F	F	F

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2000

	Rock Creek Diversion			Rock Crk upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	13.73	15.18	12.54	14.21	14.99	13.59	D	D	D	F	F	F
10/02/00	13.25	14.55	12.07	13.79	14.36	13.13	D	D	D	F	F	F
10/03/00	13.28	14.71	12.23	13.85	14.52	13.28	D	D	D	F	F	F
10/04/00	13.02	14.24	11.92	13.60	14.21	12.97	D	D	D	F	F	F
10/05/00	12.77	14.08	11.61	13.36	14.05	12.66	D	D	D	F	F	F
10/06/00	12.81	14.08	11.61	13.41	14.05	12.66	D	D	D	16.96	18.44	15.41
10/07/00	13.14	14.24	12.07	13.77	14.52	13.13	D	D	D	17.23	18.44	16.04
10/08/00	13.25	14.39	12.23	13.97	14.67	13.43	D	D	D	17.20	18.44	15.89
10/09/00	12.97	14.08	12.07	13.70	14.21	13.13	D	D	D	16.72	17.79	15.73
10/10/00	11.01	12.69	9.59	12.09	13.43	11.11	D	D	D	15.11	16.52	14.31
10/11/00	9.18	9.90	8.51	10.58	11.11	10.18	D	D	D	13.75	14.31	13.38
10/12/00	9.07	9.90	8.36	10.22	10.64	9.86	D	D	D	13.65	14.16	13.23
10/13/00	8.73	9.59	7.44	9.86	10.49	9.24	D	D	D	13.50	14.62	12.14
10/14/00	9.30	10.22	8.05	10.15	10.96	9.55	D	D	D	14.09	15.57	12.92
10/15/00	9.37	10.37	8.21	10.29	10.96	9.71	D	D	D	14.22	15.57	12.92
10/16/00	9.79	10.68	8.67	10.64	11.42	10.02	D	D	D	14.48	15.73	13.23
10/17/00	10.14	10.99	8.97	10.99	11.73	10.33	D	D	D	14.69	16.04	13.38
10/18/00	10.27	11.30	9.28	11.03	11.57	10.33	D	D	D	14.77	16.04	13.54
10/19/00	10.35	11.14	9.28	11.30	11.88	10.64	D	D	D	14.72	15.89	13.54
10/20/00	10.52	11.30	9.59	11.37	11.88	10.80	D	D	D	14.64	15.41	13.54
10/21/00	10.23	10.99	9.43	11.15	11.88	10.49	D	D	D	14.27	15.09	13.08
10/22/00	8.77	9.59	8.05	9.75	10.49	8.93	D	D	D	12.20	13.54	10.75
10/23/00	7.97	8.67	6.97	8.77	9.24	8.17	D	D	D	12.25	13.54	11.06
10/24/00	8.26	9.13	7.44	9.00	9.71	8.32	D	D	D	13.59	16.84	11.52
10/25/00	8.47	8.97	7.74	9.23	9.55	8.78	D	D	D	13.80	16.36	13.23
10/26/00	8.46	8.97	7.59	9.54	9.86	9.09	D	D	D	12.79	13.38	11.99
10/27/00	7.61	8.51	6.51	8.84	9.24	8.32	D	D	D	11.94	12.77	10.91
10/28/00	7.90	8.67	6.97	9.11	9.55	8.63	D	D	D	12.58	13.23	11.99
10/29/00	7.60	8.51	6.19	9.21	9.39	8.63	D	D	D	12.06	12.61	10.91
10/30/00	5.82	6.51	4.94	8.05	8.63	7.71	D	D	D	10.83	12.14	9.97
10/31/00	5.62	6.51	4.32	7.33	7.71	6.77	D	D	D	10.73	11.83	9.66

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Rock Creek Diversion			Rock Creek upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	10.1	12.4	7.3				12.6	15.9	9.3	16.5	21.4	12.2
05/02/01	8.8	10.6	7.3				11.4	13.7	9.0	15.3	19.5	11.9
05/03/01	7.1	8.9	5.0				9.4	12.7	6.6	13.2	17.9	9.0
05/04/01	7.9	10.1	5.3				10.0	13.5	6.4	14.3	19.3	9.7
05/05/01	9.2	11.3	6.7				11.3	14.9	7.9	15.4	20.0	11.1
05/06/01	10.5	12.7	7.8				12.6	16.3	9.2	16.7	21.6	12.2
05/07/01	11.6	13.8	9.0				14.0	17.9	10.7	18.6	24.1	13.8
05/08/01	11.7	13.7	9.3				14.4	18.2	11.0	18.6	23.6	14.2
05/09/01	11.5	13.4	9.2				14.2	17.9	11.0	18.4	22.9	14.2
05/10/01	11.9	14.0	9.6				14.5	18.2	11.2	19.0	23.6	14.5
05/11/01	12.4	14.4	10.4				14.8	18.7	11.8	19.5	24.7	15.2
05/12/01	11.6	12.4	10.7				13.6	15.2	12.4	17.5	19.5	15.8
05/13/01	11.8	13.7	9.9				13.8	16.8	10.9	17.7	21.8	13.8
05/14/01	12.0	14.4	9.8				14.0	17.9	10.7	18.1	21.9	13.9
05/15/01	12.4	14.1	10.7				14.2	17.3	11.3	18.6	22.6	14.7
05/16/01	13.7	16.0	11.6				15.5	19.4	12.4	20.1	25.0	15.8
05/17/01	13.8	16.2	11.8				15.5	19.5	12.4	20.2	25.4	15.6
05/18/01	13.6	15.9	11.8				15.2	19.2	12.1	19.7	24.8	15.3
05/19/01	13.7	16.5	11.2				15.6	19.7	11.7	18.8	26.9	15.0
05/20/01	14.3	16.8	11.5				15.8	20.2	11.5	16.8	21.1	12.5
05/21/01	15.3	17.9	12.9				17.1	21.5	13.5	18.8	26.4	13.9
05/22/01	15.9	18.4	13.7				17.6	22.0	14.0	20.7	28.9	14.7
05/23/01	16.2	18.9	13.7				17.9	22.5	14.3	21.2	29.3	15.3
05/24/01	16.2	18.9	13.8				17.8	22.2	14.3	21.4	29.3	15.5
05/25/01	15.6	18.4	13.4				17.2	22.0	13.7	20.8	29.3	14.7
05/26/01	14.5	17.3	12.1				16.2	20.8	12.4	19.9	28.7	13.6
05/27/01	14.1	17.0	11.5				15.7	20.2	12.0	19.5	27.5	13.3
05/28/01	13.7	16.3	11.5				15.1	19.4	11.8	19.1	26.8	12.7
05/29/01	14.2	17.1	11.6				15.6	20.3	11.7	20.0	28.2	13.0
05/30/01	15.6	18.9	12.7				17.1	22.0	12.7	21.6	30.4	13.9
05/31/01	16.5	19.5	13.5				18.0	22.8	13.5	22.7	31.7	15.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Rock Creek Diversion			Rock Creek upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	16.7	19.4	14.3				18.3	22.8	14.7	23.1	30.6	16.9
06/02/01	14.9	17.4	12.7				16.3	21.0	12.7	20.4	28.5	13.8
06/03/01	13.1	15.9	10.6				14.8	19.5	10.9	18.5	26.4	11.9
06/04/01	13.2	16.0	10.6				14.9	19.7	10.9	18.9	26.6	12.4
06/05/01	13.4	16.2	10.9				15.1	20.0	11.2	19.4	27.3	12.7
06/06/01	14.3	17.4	11.5				16.1	21.2	12.0	20.4	28.0	13.6
06/07/01	15.5	18.7	12.7	20.9	23.6	18.5	17.4	22.7	13.0	21.5	29.3	15.0
06/08/01	15.8	18.7	13.0	21.1	23.8	18.8	17.9	22.8	13.8	21.9	31.1	15.3
06/09/01	15.2	17.9	12.6	20.9	23.4	18.7	17.4	22.3	13.5	20.8	29.1	14.5
06/10/01	15.1	17.8	12.7	20.8	22.9	19.0	17.3	22.0	13.7	20.6	29.1	14.5
06/11/01	14.5	17.0	12.0	20.5	22.6	18.5	16.7	21.0	12.7	19.7	27.5	13.5
06/12/01	14.8	17.0	12.6	20.3	22.6	18.7	17.3	22.0	13.7	20.2	28.2	14.1
06/13/01	14.1	16.8	11.5	20.1	22.6	18.0	16.4	21.0	12.6	19.0	26.8	12.4
06/14/01	14.1	17.1	11.3	20.3	22.9	18.2	16.6	21.2	12.4	19.8	28.9	12.5
06/15/01	14.9	17.9	12.1	20.7	23.4	18.5	17.4	22.0	13.4	20.7	29.5	13.6
06/16/01	15.5	18.6	12.7	20.8	23.1	18.7	18.2	22.5	14.3	21.7	30.6	14.9
06/17/01	15.9	18.6	13.4	20.8	22.9	18.8	18.8	22.8	15.4	22.2	30.6	15.8
06/18/01	15.7	18.4	12.9	20.6	22.9	18.7	18.8	23.2	15.1	21.9	30.6	15.0
06/19/01	15.8	18.7	13.0	20.6	22.8	18.7	19.5	24.0	15.9	22.0	30.6	15.3
06/20/01	16.4	19.1	13.7	20.1	21.6	18.7	20.2	24.6	16.5	22.7	30.8	16.0
06/21/01	17.2	19.9	14.6	20.3	22.1	18.7	21.0	25.2	17.4	23.4	30.8	17.1
06/22/01	17.9	20.5	15.4	20.7	22.4	19.1	21.5	25.4	18.1	23.7	31.1	17.9
06/23/01	17.9	20.2	15.5	20.5	21.8	19.3	21.3	24.9	18.1	23.3	31.0	17.6
06/24/01	16.6	18.4	14.3	19.3	20.3	18.3	19.8	23.2	17.1	21.1	28.0	15.3
06/25/01	15.5	17.4	13.0	18.1	19.3	16.7	19.0	22.3	16.3	20.3	27.8	13.8
06/26/01	16.1	18.2	14.1	18.1	19.5	17.0	19.4	22.8	17.1	21.4	28.4	16.4
06/27/01	16.6	19.2	14.4	18.6	20.1	17.4	19.5	23.5	17.0	22.2	29.1	16.9
06/28/01	15.4	18.9	11.0	18.5	19.9	17.0	19.2	23.2	16.0	20.6	22.3	18.7
06/29/01	16.6	20.7	12.6	19.2	20.8	17.7	20.2	24.7	16.6	21.8	25.9	18.8
06/30/01	V	V	V	19.8	21.4	18.3	20.8	26.4	17.1	21.9	25.4	18.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Rock Creek Diversion			Rock Creek upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	V	V	V	20.2	21.8	18.7	F	F	F	22.9	27.1	19.0
07/02/01	V	V	V	20.7	22.4	19.1	F	F	F	23.6	28.0	19.2
07/03/01	V	V	V	21.6	23.3	20.1	F	F	F	24.2	26.6	21.6
07/04/01	V	V	V	21.8	22.4	21.3	F	F	F	25.5	26.9	24.3
07/05/01	V	V	V	22.0	23.6	20.6	F	F	F	25.5	28.9	23.3
07/06/01	V	V	V	21.4	21.9	20.9	21.9	22.8	20.5	23.1	24.3	21.9
07/07/01	V	V	V	20.7	21.1	20.1	20.7	22.5	19.4	22.3	24.1	20.6
07/08/01	V	V	V	21.1	22.3	19.9	21.1	25.1	17.8	23.4	26.6	21.1
07/09/01	V	V	V	21.6	23.1	20.3	21.6	25.1	18.4	24.0	28.0	21.6
07/10/01	V	V	V	21.3	22.6	20.3	21.3	24.7	18.6	23.9	28.0	21.6
07/11/01	V	V	V	21.1	22.4	19.9	21.3	24.7	18.6	23.5	27.8	21.1
07/12/01	V	V	V	20.4	21.8	19.0	20.7	24.7	17.8	22.8	28.2	19.0
07/13/01	V	V	V	20.2	21.6	19.0	20.1	23.5	17.3	23.2	27.8	20.1
07/14/01	V	V	V	20.3	21.9	18.8	20.2	24.0	17.3	21.3	23.5	18.4
07/15/01	V	V	V	19.8	21.4	18.3	19.6	23.5	16.5	21.0	22.6	18.4
07/16/01	V	V	V	19.6	21.1	18.2	19.1	22.5	16.2	21.0	24.0	19.0
07/17/01	V	V	V	19.5	20.9	18.0	19.2	22.5	16.6	21.3	24.8	18.8
07/18/01	V	V	V	19.5	21.1	18.0	19.4	22.8	16.3	D	D	D
07/19/01	V	V	V	19.5	21.1	18.0	19.7	23.7	17.0	D	D	D
07/20/01	V	V	V	19.4	21.1	18.0	19.3	23.0	16.0	D	D	D
07/21/01	V	V	V	19.4	20.9	18.0	19.5	23.2	16.5	D	D	D
07/22/01	V	V	V	19.3	20.9	17.8	19.5	23.0	16.5	D	D	D
07/23/01	V	V	V	19.3	20.9	17.8	19.8	23.3	16.6	D	D	D
07/24/01	V	V	V	19.5	20.9	18.2	20.5	23.8	17.4	D	D	D
07/25/01	18.5	21.2	16.2	20.0	21.3	18.7	21.3	24.4	18.2	D	D	D
07/26/01	19.6	22.7	17.4	20.7	22.3	19.3	21.8	24.7	19.5	D	D	D
07/27/01	19.2	22.2	16.8	20.3	21.8	19.0	21.7	25.6	18.9	D	D	D
07/28/01	18.5	21.7	16.0	19.8	21.3	18.5	21.3	25.4	18.1	D	D	D
07/29/01	18.0	21.2	15.5	19.3	20.8	18.0	21.1	26.6	17.6	D	D	D
07/30/01	17.6	20.5	15.4	18.9	20.1	17.7	D	D	D	D	D	D
07/31/01	18.1	21.2	15.9	19.1	20.6	17.8	D	D	D	D	D	D

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Rock Creek Diversion			Rock Creek upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	18.5	21.5	16.2	19.4	20.9	18.0	D	D	D	D	D	D
08/02/01	18.9	22.0	16.5	19.8	21.3	18.5	D	D	D	D	D	D
08/03/01	19.2	22.0	17.0	20.0	21.6	18.8	D	D	D	D	D	D
08/04/01	18.7	21.5	16.3	19.6	20.9	18.3	D	D	D	D	D	D
08/05/01	18.2	21.2	15.5	19.1	20.4	17.7	D	D	D	D	D	D
08/06/01	18.5	21.3	15.9	19.3	20.8	17.8	D	D	D	D	D	D
08/07/01	19.7	22.5	17.1	20.2	21.8	18.8	D	D	D	D	D	D
08/08/01	20.5	23.3	18.1	20.9	22.4	19.6	D	D	D	D	D	D
08/09/01	20.4	23.0	17.9	20.8	22.1	19.6	D	D	D	D	D	D
08/10/01	20.2	22.8	17.9	20.6	21.9	19.5	D	D	D	D	D	D
08/11/01	19.9	22.5	17.3	20.2	21.6	19.0	D	D	D	D	D	D
08/12/01	19.8	22.3	17.4	20.1	21.4	19.0	D	D	D	D	D	D
08/13/01	19.6	22.2	17.1	19.8	21.1	18.7	D	D	D	D	D	D
08/14/01	19.4	21.8	16.8	19.6	20.9	18.3	D	D	D	D	D	D
08/15/01	19.0	21.2	16.6	19.3	20.6	18.3	D	D	D	D	D	D
08/16/01	19.0	21.3	16.5	19.3	20.8	18.0	D	D	D	D	D	D
08/17/01	19.0	21.0	16.6	19.3	20.6	18.0	D	D	D	D	D	D
08/18/01	19.4	21.5	17.1	19.6	20.9	18.3	D	D	D	D	D	D
08/19/01	19.5	21.5	17.3	19.6	20.9	18.5	D	D	D	D	D	D
08/20/01	19.0	21.0	16.8	19.0	20.3	18.0	D	D	D	D	D	D
08/21/01	18.0	19.2	16.2	18.2	19.1	17.4	D	D	D	D	D	D
08/22/01	16.5	17.8	14.9	17.1	18.0	16.4	D	D	D	D	D	D
08/23/01	16.1	17.9	14.1	16.9	17.8	15.9	D	D	D	D	D	D
08/24/01	16.7	18.7	14.6	17.2	18.3	16.3	D	D	D	D	D	D
08/25/01	17.7	20.0	15.4	18.0	19.5	16.7	D	D	D	D	D	D
08/26/01	18.3	20.3	15.9	18.5	19.9	17.2	D	D	D	D	D	D
08/27/01	18.7	20.5	16.6	18.8	20.1	17.7	D	D	D	D	D	D
08/28/01	19.1	20.7	17.0	19.1	20.3	18.0	D	D	D	D	D	D
08/29/01	19.3	21.2	17.3	19.2	20.4	18.2	D	D	D	D	D	D
08/30/01	19.0	20.7	17.1	18.9	19.9	18.0	D	D	D	D	D	D
08/31/01	18.3	20.0	16.3	18.3	19.5	17.4	D	D	D	D	D	D

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Rock Creek Diversion			Rock Creek upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	18.2	19.9	16.2	18.2	19.5	17.2	D	D	D	D	D	D
09/02/01	18.1	19.9	15.9	18.2	19.5	17.0	D	D	D	D	D	D
09/03/01	18.4	19.5	16.8	18.6	19.6	17.7	D	D	D	D	D	D
09/04/01	18.6	20.3	16.6	18.9	20.1	17.8	D	D	D	D	D	D
09/05/01	18.3	19.9	16.6	18.7	19.8	17.8	D	D	D	D	D	D
09/06/01	17.2	18.7	15.2	17.5	18.5	16.6	D	D	D	D	D	D
09/07/01	16.8	18.4	14.7	16.9	18.0	15.9	D	D	D	D	D	D
09/08/01	16.7	18.4	14.7	16.7	17.8	15.8	D	D	D	D	D	D
09/09/01	16.5	18.4	14.6	16.6	17.8	15.5	D	D	D	D	D	D
09/10/01	16.5	18.1	14.6	16.5	17.7	15.5	D	D	D	D	D	D
09/11/01	16.5	17.3	15.7	16.8	17.4	16.3	D	D	D	D	D	D
09/12/01	16.2	17.9	14.4	16.6	17.7	15.8	D	D	D	D	D	D
09/13/01	15.9	17.4	14.0	16.2	17.4	15.3	D	D	D	D	D	D
09/14/01	15.7	17.3	13.8	16.0	17.2	15.2	D	D	D	D	D	D
09/15/01	15.5	17.1	13.7	15.8	16.9	14.8	D	D	D	D	D	D
09/16/01	15.3	17.0	13.5	15.5	16.7	14.5	D	D	D	D	D	D
09/17/01	15.3	16.8	13.5	15.6	16.7	14.7	D	D	D	D	D	D
09/18/01	15.6	17.1	13.8	15.9	17.0	15.0	D	D	D	D	D	D
09/19/01	15.7	17.1	14.0	16.0	17.0	15.2	D	D	D	D	D	D
09/20/01	15.9	17.3	14.3	16.2	17.4	15.3	D	D	D	D	D	D
09/21/01	15.9	17.1	14.1	16.1	17.0	15.3	D	D	D	D	D	D
09/22/01	15.8	16.8	14.3	16.1	17.0	15.3	D	D	D	D	D	D
09/23/01	15.4	16.3	14.1	15.8	16.4	15.2	D	D	D	D	D	D
09/24/01	15.1	16.6	13.5	15.4	16.3	14.5	D	D	D	D	D	D
09/25/01	15.9	17.6	14.6	16.1	17.2	15.2	D	D	D	D	D	D
09/26/01	15.4	16.6	13.8	15.9	16.7	15.2	D	D	D	D	D	D
09/27/01	14.8	16.0	13.2	15.3	16.1	14.5	D	D	D	D	D	D
09/28/01	14.5	15.9	13.0	14.9	15.8	14.2	D	D	D	D	D	D
09/29/01	14.0	15.4	12.4	14.4	15.3	13.6	D	D	D	D	D	D
09/30/01	14.0	15.2	12.3	14.4	15.3	13.4	D	D	D	D	D	D

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Diverted Tributaries, 2001

	Rock Creek Diversion			Rock Creek upstream of SJR			Ross Creek Diversion			Ross Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	14.9	16.2	13.2	15.0	16.1	14.2	D	D	D	D	D	D
10/02/01	15.3	16.6	13.8	15.5	16.4	14.7	D	D	D	D	D	D
10/03/01	15.4	16.6	14.0	15.7	16.6	14.8	D	D	D	D	D	D
10/04/01	15.4	16.5	14.0	15.7	16.6	15.0	D	D	D	D	D	D
10/05/01	15.2	16.5	14.1	15.4	16.1	14.8	D	D	D	D	D	D
10/06/01	13.9	14.9	12.7	14.3	14.8	13.7	D	D	D	D	D	D
10/07/01	13.2	14.1	11.8	13.7	14.4	13.0	D	D	D	D	D	D
10/08/01	13.0	13.8	11.5	13.5	14.2	13.0	D	D	D	D	D	D
10/09/01	12.9	14.0	11.6	13.5	14.2	13.0	D	D	D	D	D	D
10/10/01	12.0	12.9	10.7	12.8	13.3	12.2	D	D	D	D	D	D
10/11/01	11.6	12.3	10.6	12.4	13.0	11.9	D	D	D	D	D	D
10/12/01	11.4	13.8	9.6	12.2	13.0	11.6	D	D	D	D	D	D
10/13/01	M	M	M	12.1	12.8	11.4	D	D	D	D	D	D
10/14/01	M	M	M	12.1	13.0	11.4	D	D	D	D	D	D
10/15/01	M	M	M	12.1	12.8	11.4	D	D	D	D	D	D
10/16/01	M	M	M	12.1	12.8	11.4	D	D	D	D	D	D
10/17/01	M	M	M	12.1	12.7	11.6	D	D	D	D	D	D
10/18/01	M	M	M	12.1	12.7	11.4	D	D	D	D	D	D
10/19/01	M	M	M	12.1	12.5	11.6	D	D	D	D	D	D
10/20/01	M	M	M	12.1	12.7	11.6	D	D	D	D	D	D
10/21/01	M	M	M	11.9	12.5	11.4	D	D	D	D	D	D
10/22/01	M	M	M	11.3	11.9	10.8	D	D	D	D	D	D
10/23/01	M	M	M	11.1	11.7	10.5	D	D	D	D	D	D
10/24/01	M	M	M	10.9	11.4	10.3	D	D	D	D	D	D
10/25/01	M	M	M	10.6	11.3	10.0	D	D	D	D	D	D
10/26/01	M	M	M	10.3	10.8	9.9	D	D	D	D	D	D
10/27/01	M	M	M	10.3	10.8	9.7	D	D	D	D	D	D
10/28/01	M	M	M	10.3	10.8	9.7	D	D	D	D	D	D
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00												
06/15/00	17.22	18.73	15.39	16.92	19.82	14.40	15.80	18.11	13.67	16.49	19.52	13.65
06/16/00	17.78	19.06	16.34	17.32	19.66	15.34	16.39	17.78	14.76	17.04	19.69	14.89
06/17/00	17.16	18.41	15.55	16.90	19.33	14.71	15.99	17.62	14.28	16.29	19.04	13.96
06/18/00	16.87	18.09	15.39	16.62	19.17	14.56	15.68	17.46	13.82	15.98	18.72	13.65
06/19/00	16.51	17.77	15.07	16.35	18.85	14.09	15.31	16.98	13.36	15.50	18.07	12.88
06/20/00	16.74	18.25	15.23	16.49	19.17	14.09	15.52	17.31	13.51	15.93	19.04	13.34
06/21/00	17.03	18.57	15.39	16.70	19.49	14.24	15.75	17.78	13.51	16.05	19.20	13.19
06/22/00	17.40	18.90	16.02	17.04	19.49	14.87	16.10	17.62	14.28	16.41	19.04	14.11
06/23/00	16.72	18.09	15.23	16.46	18.85	14.24	15.50	16.98	13.67	15.59	18.39	13.04
06/24/00	16.54	18.09	14.92	16.34	18.85	13.93	15.36	17.14	13.21	15.53	18.39	12.73
06/25/00	16.68	18.25	15.07	16.44	19.01	14.09	15.62	17.46	13.51	15.95	18.88	13.34
06/26/00	16.54	18.09	14.92	16.16	19.01	13.93	15.60	17.14	13.67	15.91	19.20	13.50
06/27/00	16.72	18.25	15.07	16.37	19.01	13.78	15.63	17.46	13.51	16.03	19.04	13.34
06/28/00	17.37	18.90	16.02	16.92	19.82	14.87	16.35	17.78	14.76	16.87	19.69	14.58
06/29/00	17.18	18.73	15.39	16.96	19.49	14.56	16.42	18.11	14.44	16.92	19.85	14.11
06/30/00	17.46	18.90	16.18	17.17	19.66	15.34	16.77	18.11	15.39	17.09	19.52	15.21

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	15.64	16.81	13.52	15.75	18.37	13.63	15.04	16.34	13.36	15.11	17.59	12.73
07/02/00	14.19	16.18	11.97	14.99	17.72	12.55	14.16	15.87	12.27	14.26	17.11	11.48
07/03/00	13.90	15.55	11.82	14.76	17.24	12.86	14.03	15.39	12.58	14.16	16.64	12.11
07/04/00	12.84	14.76	9.96	14.01	16.61	11.62	13.14	14.59	11.33	13.24	16.00	10.72
07/05/00	12.87	14.76	10.27	14.06	16.61	11.78	13.18	14.76	11.49	13.36	16.00	10.87
07/06/00	13.06	15.07	10.27	14.25	16.93	11.93	13.51	15.23	11.64	13.69	16.64	11.18
07/07/00	13.40	15.07	11.19	14.40	16.93	12.08	13.75	15.55	11.80	13.97	16.79	11.48
07/08/00	13.28	15.07	10.58	14.51	17.08	12.08	13.86	15.71	11.80	14.09	16.96	11.48
07/09/00	13.48	15.23	10.58	14.85	17.56	12.39	14.19	16.03	12.11	14.47	17.27	11.79
07/10/00	14.15	16.02	11.51	15.35	17.88	13.02	14.84	16.67	12.89	15.06	17.91	12.57
07/11/00	14.76	16.34	12.43	15.85	18.21	13.63	15.47	17.14	13.67	15.73	18.39	13.34
07/12/00	14.91	16.49	12.74	16.00	18.69	13.63	15.71	17.46	13.82	15.91	18.72	13.34
07/13/00	14.70	16.97	11.19	15.74	18.53	13.02	15.48	17.31	13.21	15.67	18.72	12.73
07/14/00	15.60	16.97	13.98	15.90	18.53	13.32	15.59	17.31	13.51	15.83	18.72	13.04
07/15/00	16.00	17.45	14.60	16.27	18.85	14.09	15.92	17.62	14.13	16.11	18.88	13.65
07/16/00	16.13	17.45	14.92	16.40	19.01	14.56	16.10	17.78	14.76	16.31	18.88	14.42
07/17/00	15.63	17.13	14.13	15.84	18.53	13.48	15.56	17.31	13.51	15.74	18.56	13.19
07/18/00	15.49	16.81	13.98	15.73	18.37	13.17	15.38	17.14	13.36	15.63	18.56	12.88
07/19/00	15.34	16.65	13.67	15.76	18.37	13.17	15.32	17.14	13.21	15.62	18.56	12.73
07/20/00	15.49	16.97	13.82	15.98	18.69	13.32	15.54	17.62	13.36	15.92	19.04	12.88
07/21/00	15.97	17.45	14.29	16.27	19.01	13.63	15.77	17.78	13.51	16.20	19.20	13.34
07/22/00	16.14	17.61	14.60	16.48	19.33	14.09	16.14	17.94	14.13	16.48	19.52	13.81
07/23/00	15.98	17.29	14.29	16.37	19.17	13.78	15.96	17.78	13.82	16.36	19.36	13.50
07/24/00	16.12	17.45	14.60	16.55	19.33	14.09	16.09	17.94	14.13	16.52	19.36	13.81
07/25/00	16.15	17.45	14.60	16.53	19.33	14.24	16.12	17.94	14.13	16.52	19.20	13.96
07/26/00	16.14	17.45	14.76	16.44	19.33	14.24	16.14	17.94	14.28	16.44	19.04	13.96
07/27/00	15.79	17.13	14.29	16.10	19.01	13.63	15.74	17.62	13.67	16.13	19.04	13.34
07/28/00	15.55	16.81	13.82	15.95	18.85	13.32	15.34	17.14	13.05	15.87	18.72	12.88
07/29/00	15.85	17.13	14.29	16.49	19.17	14.09	15.90	17.62	13.82	16.46	19.36	13.81
07/30/00	16.83	18.25	15.39	17.54	20.14	15.34	17.06	18.75	15.07	17.64	20.17	15.21
07/31/00	17.48	18.73	16.02	17.95	20.63	15.82	17.74	19.40	15.71	18.21	20.82	15.84

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	18.07	18.90	17.13	18.34	20.30	17.08	18.49	19.57	17.14	18.84	20.49	17.27
08/02/00	17.82	18.57	16.81	18.02	20.30	16.29	17.98	18.92	16.67	18.42	20.33	16.48
08/03/00	18.00	19.06	17.13	18.25	20.79	16.45	17.99	19.57	16.51	18.50	20.66	16.64
08/04/00	17.96	19.22	16.65	18.33	20.96	16.45	18.23	19.73	16.51	18.60	20.99	16.32
08/05/00	17.67	18.90	16.34	18.05	20.79	15.98	17.92	19.57	16.03	18.21	20.66	15.84
08/06/00	17.46	18.57	16.18	17.86	20.63	15.82	17.72	19.24	16.03	17.98	20.33	15.84
08/07/00	17.05	18.25	15.87	17.46	20.14	15.34	17.22	18.75	15.55	17.50	19.85	15.21
08/08/00	16.55	17.77	15.23	16.98	19.66	14.87	16.65	18.11	14.76	16.94	19.36	14.58
08/09/00	16.12	17.29	14.76	16.56	19.17	14.40	16.13	17.46	14.44	16.46	18.88	14.11
08/10/00	15.55	16.65	14.13	16.09	18.85	13.78	15.47	16.82	13.67	15.91	18.39	13.34
08/11/00	15.14	16.34	13.67	15.95	18.85	13.32	15.13	16.51	13.05	15.67	18.39	12.88
08/12/00	15.41	16.65	13.98	16.15	19.17	13.63	15.16	16.67	13.05	15.85	18.39	13.04
08/13/00	15.22	16.49	13.82	16.10	19.17	13.78	15.16	16.67	13.36	15.76	18.23	13.19
08/14/00	14.97	16.34	13.52	15.94	18.85	13.32	14.88	16.34	12.89	15.59	18.23	12.88
08/15/00	15.42	16.65	14.13	16.50	19.66	14.09	15.47	16.98	13.67	16.17	18.72	13.65
08/16/00	15.68	16.97	14.29	16.67	19.82	14.24	15.67	17.14	13.82	16.37	18.88	13.96
08/17/00	15.69	16.81	14.44	16.67	19.82	14.40	15.65	16.98	13.97	16.31	18.56	13.96
08/18/00	15.10	16.18	13.98	15.98	19.17	13.63	14.85	16.19	13.21	15.50	17.91	13.04
08/19/00	14.08	15.23	12.74	15.05	18.37	12.39	13.77	15.07	11.96	14.45	16.96	11.79
08/20/00	13.78	14.92	12.43	14.98	18.37	12.39	13.61	15.07	11.80	14.32	16.96	11.64
08/21/00	13.91	15.07	12.59	15.07	18.21	12.55	13.66	15.07	11.80	14.45	16.96	11.79
08/22/00	14.09	15.23	12.74	15.25	18.37	12.71	13.82	15.07	12.11	14.65	17.11	12.11
08/23/00	14.23	15.39	13.06	15.50	18.85	13.02	14.14	15.55	12.42	14.93	17.27	12.57
08/24/00	14.30	15.55	13.06	15.69	19.01	13.02	14.20	15.55	12.42	15.03	17.59	12.42
08/25/00	15.46	16.81	14.29	16.97	20.30	14.87	15.46	16.82	13.97	16.35	18.56	14.42
08/26/00	16.46	17.77	15.55	17.70	20.63	15.98	16.58	17.94	15.39	17.25	19.36	15.68
08/27/00	16.16	17.29	15.07	17.35	20.63	15.03	16.28	17.46	14.76	16.85	19.04	14.73
08/28/00	16.06	17.13	15.23	17.18	19.33	15.19	16.18	17.14	14.91	16.71	18.56	14.73
08/29/00	16.14	16.65	15.87	16.79	17.24	16.29	15.89	16.34	15.55	16.32	16.79	15.68
08/30/00	15.69	16.18	15.23	16.61	18.21	15.66	15.66	16.51	15.07	16.05	17.43	15.21
08/31/00	15.04	16.02	14.13	15.81	18.37	14.24	14.94	15.87	13.82	15.36	17.11	13.81

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	13.85	14.92	13.06	14.43	15.19	13.63	13.81	14.76	13.21	13.84	14.89	12.88
09/02/00	13.48	14.29	12.74	14.33	16.61	13.02	13.28	14.28	12.42	13.89	15.84	12.42
09/03/00	13.41	14.29	12.43	14.11	16.45	12.39	12.95	13.82	11.80	13.54	15.53	11.95
09/04/00	12.90	13.82	11.82	13.46	15.98	11.62	12.35	13.36	11.03	12.86	14.73	11.02
09/05/00	12.12	13.06	10.89	12.77	15.34	10.70	11.48	12.42	10.09	12.16	14.11	10.09
09/06/00	11.74	12.74	10.42	12.55	15.19	10.23	10.94	11.96	9.47	11.91	13.96	9.62
09/07/00	V	V	V	F	F	F	V	V	V	12.21	14.58	9.93
09/08/00	V	V	V	F	F	F	V	V	V	12.65	14.89	10.41
09/09/00	V	V	V	F	F	F	V	V	V	12.70	14.89	10.56
09/10/00	V	V	V	F	F	F	V	V	V	13.08	15.37	10.87
09/11/00	V	V	V	F	F	F	V	V	V	13.29	15.53	11.18
09/12/00	V	V	V	F	F	F	V	V	V	12.96	14.58	11.02
09/13/00	V	V	V	F	F	F	V	V	V	14.28	16.48	12.42
09/14/00	V	V	V	F	F	F	V	V	V	14.97	17.11	13.04
09/15/00	V	V	V	F	F	F	V	V	V	15.19	17.43	13.19
09/16/00	V	V	V	F	F	F	V	V	V	14.42	16.64	12.11
09/17/00	V	V	V	F	F	F	V	V	V	14.47	16.64	12.42
09/18/00	V	V	V	F	F	F	V	V	V	14.71	16.79	12.73
09/19/00	V	V	V	F	F	F	V	V	V	14.88	16.79	12.88
09/20/00	V	V	V	F	F	F	V	V	V	15.30	17.43	13.34
09/21/00	V	V	V	F	F	F	V	V	V	15.23	17.11	13.65
09/22/00	V	V	V	F	F	F	V	V	V	14.05	15.37	13.04
09/23/00	V	V	V	F	F	F	V	V	V	12.65	14.27	10.87
09/24/00	V	V	V	F	F	F	V	V	V	12.42	14.42	10.41
09/25/00	V	V	V	F	F	F	V	V	V	12.45	14.27	10.56
09/26/00	V	V	V	F	F	F	V	V	V	12.47	14.27	10.72
09/27/00	V	V	V	F	F	F	V	V	V	12.57	14.42	10.87
09/28/00	V	V	V	F	F	F	V	V	V	12.70	14.42	11.02
09/29/00	V	V	V	F	F	F	V	V	V	12.72	14.58	10.87
09/30/00	V	V	V	F	F	F	V	V	V	12.90	14.89	11.02

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	V	V	V	F	F	F	V	V	V	12.79	14.42	11.02
10/02/00	V	V	V	F	F	F	V	V	V	12.58	14.42	10.87
10/03/00	V	V	V	F	F	F	V	V	V	12.61	14.27	11.02
10/04/00	V	V	V	F	F	F	V	V	V	12.29	13.96	10.56
10/05/00	V	V	V	F	F	F	V	V	V	12.30	14.11	10.56
10/06/00	V	V	V	F	F	F	V	V	V	12.36	14.11	10.72
10/07/00	V	V	V	F	F	F	V	V	V	12.56	14.27	11.02
10/08/00	V	V	V	F	F	F	V	V	V	12.65	14.27	11.02
10/09/00	V	V	V	F	F	F	V	V	V	12.11	13.19	10.72
10/10/00	V	V	V	10.93	12.86	9.61	V	V	V	9.75	11.79	8.70
10/11/00	V	V	V	10.04	13.17	8.68	V	V	V	8.82	9.78	8.24
10/12/00	V	V	V	10.61	14.71	8.68	V	V	V	8.87	9.93	8.08
10/13/00	V	V	V	10.24	14.87	7.14	V	V	V	8.44	9.93	6.85
10/14/00	V	V	V	10.53	15.51	7.45	V	V	V	8.93	10.41	7.47
10/15/00	V	V	V	10.83	16.13	7.76	V	V	V	9.19	10.56	7.78
10/16/00	V	V	V	11.32	16.93	8.07	V	V	V	9.67	11.33	8.08
10/17/00	V	V	V	11.52	17.24	8.38	V	V	V	9.96	11.48	8.39
10/18/00	V	V	V	11.40	15.51	8.53	V	V	V	10.20	11.79	8.70
10/19/00	V	V	V	11.48	16.77	8.38	V	V	V	10.15	11.64	8.70
10/20/00	V	V	V	11.40	15.98	8.53	V	V	V	10.19	11.48	8.70
10/21/00	V	V	V	10.32	15.66	8.22	V	V	V	9.66	11.48	8.24
10/22/00	V	V	V	8.98	12.86	6.99	V	V	V	7.79	8.54	7.01
10/23/00	V	V	V	9.14	14.24	6.06	V	V	V	7.48	8.86	6.07
10/24/00	V	V	V	9.69	14.56	6.99	V	V	V	8.16	9.47	6.85
10/25/00	V	V	V	9.69	13.02	7.29	V	V	V	8.46	9.32	7.32
10/26/00	V	V	V	9.45	10.86	8.22	V	V	V	8.39	9.01	7.78
10/27/00	V	V	V	8.93	12.24	6.52	V	V	V	7.31	8.24	6.07
10/28/00	V	V	V	9.41	11.01	7.76	V	V	V	7.97	8.86	6.85
10/29/00	V	V	V	8.61	9.45	7.14	V	V	V	7.65	8.54	6.23
10/30/00	V	V	V	7.33	9.92	5.91	V	V	V	5.87	6.69	4.83
10/31/00	V	V	V	7.11	11.01	4.81	V	V	V	5.53	6.85	4.21

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Chiquito Creek upstream of Mammoth Pool			Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Chiquito Creek upstream of Mammoth Pool			Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00												
06/15/00	F	F	F							15.64	17.74	13.64
06/16/00	F	F	F							15.97	18.06	14.26
06/17/00	F	F	F							15.40	17.42	13.33
06/18/00	F	F	F							15.12	17.10	13.18
06/19/00	F	F	F							14.73	16.78	12.87
06/20/00	F	F	F							15.03	17.26	12.87
06/21/00	F	F	F							15.41	17.58	13.49
06/22/00	F	F	F							15.62	17.74	13.79
06/23/00	F	F	F							15.10	17.26	13.18
06/24/00	F	F	F							14.99	17.26	13.03
06/25/00	F	F	F							15.21	17.42	13.18
06/26/00	F	F	F							15.15	17.42	13.18
06/27/00	F	F	F							15.28	17.42	13.18
06/28/00	F	F	F							16.04	18.22	14.26
06/29/00	F	F	F							15.92	18.06	13.95
06/30/00	F	F	F							15.85	18.06	14.11

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Chiquito Creek upstream of Mammoth Pool			Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	F	F	F							14.54	16.62	12.72
07/02/00	F	F	F							13.63	15.84	11.48
07/03/00	F	F	F							13.31	15.36	11.48
07/04/00	F	F	F							12.49	14.57	10.40
07/05/00	F	F	F							12.43	14.57	10.40
07/06/00	F	F	F							12.59	14.89	10.56
07/07/00	F	F	F	15.58	17.06	14.21	10.97	14.62	8.42	12.82	15.21	10.71
07/08/00	F	F	F	15.60	17.06	14.21	11.03	14.93	8.57	12.92	15.21	10.86
07/09/00	F	F	F	15.78	17.21	14.37	11.32	15.09	8.57	13.24	15.52	11.17
07/10/00	F	F	F	16.05	17.53	14.68	12.08	15.57	9.81	13.70	15.99	11.63
07/11/00	F	F	F	16.49	18.01	14.99	12.76	16.04	10.28	14.28	16.62	12.25
07/12/00	F	F	F	16.62	18.17	15.15	12.92	16.51	10.43	14.61	17.10	12.56
07/13/00	F	F	F	16.50	18.01	14.83	12.62	16.67	9.81	14.40	16.78	12.09
07/14/00	F	F	F	16.64	18.01	15.15	12.62	16.36	9.97	14.63	16.94	12.41
07/15/00	F	F	F	16.91	18.33	15.47	12.63	16.20	10.12	14.84	17.10	12.87
07/16/00	F	F	F	16.99	18.33	15.78	13.16	16.04	11.36	14.85	17.10	13.18
07/17/00	F	F	F	16.75	18.17	15.31	12.51	15.88	10.12	14.43	16.62	12.41
07/18/00	F	F	F	16.70	18.17	15.15	12.30	16.04	9.50	14.43	16.78	12.25
07/19/00	F	F	F	16.67	18.01	15.15	12.29	16.20	9.50	14.46	16.78	12.09
07/20/00	18.65	20.54	16.67	16.79	18.17	15.15	12.60	16.67	9.50	14.64	17.10	12.25
07/21/00	19.25	21.20	17.31	17.14	18.49	15.62	12.69	16.67	9.66	15.04	17.42	12.72
07/22/00	19.47	21.20	17.47	17.23	18.66	15.78	13.27	16.83	10.59	15.19	17.58	13.03
07/23/00	19.25	20.71	17.47	17.17	18.49	15.62	12.90	16.67	10.12	15.13	17.42	12.87
07/24/00	19.40	21.20	17.79	17.25	18.49	15.78	13.20	16.67	10.74	15.31	17.58	13.03
07/25/00	19.36	21.03	17.79	17.28	18.49	15.94	13.27	16.36	11.06	15.27	17.58	13.03
07/26/00	19.41	21.03	17.95	17.29	18.49	15.94	13.11	16.20	10.90	15.19	17.42	13.03
07/27/00	19.19	20.71	17.47	17.10	18.33	15.62	12.72	16.36	10.12	14.83	17.10	12.56
07/28/00	18.99	20.71	17.31	16.95	18.17	15.47	12.49	16.20	9.81	14.75	17.10	12.25
07/29/00	19.07	20.38	17.63	17.14	18.33	15.78	13.30	16.83	10.74	15.14	17.42	12.87
07/30/00	19.66	20.87	18.76	17.89	19.14	16.58	14.27	17.31	11.98	16.17	18.38	14.11
07/31/00	20.53	21.70	19.41	18.32	19.46	17.06	15.22	18.27	12.91	16.78	18.87	14.73

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Chiquito Creek upstream of Mammoth Pool			Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	21.16	22.20	20.38	18.86	19.79	17.85	15.88	17.78	14.30	17.56	19.51	15.84
08/02/00	20.84	21.70	20.22	18.63	19.30	17.69	15.44	17.46	13.68	17.39	18.71	15.84
08/03/00	20.72	21.53	20.06	18.67	19.46	17.85	15.54	18.11	13.83	17.39	19.03	15.84
08/04/00	20.67	21.87	19.73	18.73	19.79	17.53	15.51	18.27	13.68	17.41	19.35	15.52
08/05/00	20.60	21.70	19.73	18.62	19.63	17.37	14.93	17.94	12.91	17.03	19.03	15.04
08/06/00	20.34	21.20	19.57	18.50	19.46	17.37	14.74	17.46	12.76	16.67	18.54	14.89
08/07/00	20.00	21.03	19.08	18.23	19.30	17.06	14.21	16.83	12.44	16.19	18.06	14.26
08/08/00	19.51	20.54	18.59	17.90	18.98	16.58	13.57	16.36	11.52	15.58	17.58	13.64
08/09/00	19.16	20.06	18.27	17.65	18.66	16.42	12.93	16.04	10.59	15.07	17.10	13.03
08/10/00	18.56	19.73	17.63	17.27	18.33	15.94	12.43	15.57	10.12	14.58	16.62	12.41
08/11/00	18.11	19.24	16.99	17.00	18.01	15.47	12.15	15.72	9.50	14.39	16.47	12.25
08/12/00	18.29	19.57	17.15	17.26	18.33	15.94	12.26	15.72	9.66	14.71	16.78	12.56
08/13/00	18.11	19.41	16.99	17.09	18.17	15.78	12.44	15.57	10.28	14.54	16.62	12.56
08/14/00	17.94	19.41	16.67	16.91	18.01	15.47	12.36	15.57	9.97	14.24	16.47	12.09
08/15/00	18.70	20.54	17.15	17.23	18.33	15.94	13.14	16.04	11.21	14.78	16.78	12.87
08/16/00	19.28	20.87	17.31	17.38	18.33	16.10	13.41	16.36	11.52	15.06	17.10	13.18
08/17/00	19.37	20.71	17.63	17.42	18.49	16.26	13.23	15.88	11.36	15.01	16.94	13.18
08/18/00	18.90	20.22	17.15	16.96	18.01	15.78	12.18	14.93	10.12	14.39	16.31	12.56
08/19/00	17.93	19.08	16.19	16.20	17.21	14.83	11.18	13.99	9.03	13.31	15.21	11.32
08/20/00	17.43	18.59	15.56	16.01	17.06	14.68	11.11	14.14	9.03	13.02	15.04	11.02
08/21/00	17.47	18.92	15.56	16.11	17.06	14.83	11.12	14.14	8.88	13.04	14.89	11.02
08/22/00	17.64	19.08	15.72	16.24	17.21	14.99	11.39	14.46	9.19	13.25	15.21	11.32
08/23/00	17.81	19.24	16.04	16.30	17.37	14.99	11.91	14.62	10.12	13.47	15.36	11.63
08/24/00	17.88	19.41	16.04	16.38	17.37	14.99	11.96	15.09	9.81	13.58	15.36	11.79
08/25/00	18.65	19.89	17.15	17.22	18.33	16.10	13.59	16.04	12.13	14.70	16.62	13.18
08/26/00	19.51	20.71	18.11	17.93	18.98	17.06	14.26	16.51	13.07	15.71	17.26	14.57
08/27/00	19.77	21.03	18.11	17.68	18.66	16.58	13.89	16.36	12.29	15.34	16.94	13.79
08/28/00	19.56	20.38	18.27	17.64	18.33	16.58	13.52	15.57	11.98	15.28	16.62	13.79
08/29/00	19.08	20.06	18.59	17.54	18.01	17.21	13.22	13.83	12.76	15.20	15.84	14.73
08/30/00	18.28	18.76	17.79	17.19	17.53	16.73	12.90	14.14	12.13	14.72	15.52	14.11
08/31/00	17.89	18.92	16.51	16.72	17.53	15.78	M	M	M	13.68	14.57	12.56

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Chiquito Creek upstream of Mammoth Pool			Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	16.50	18.27	15.41	15.76	16.58	15.15	M	M	M	12.45	13.49	11.63
09/02/00	15.44	16.36	14.45	15.58	16.58	14.83	M	M	M	12.02	13.03	11.17
09/03/00	15.55	16.83	14.29	15.43	16.26	14.68	M	M	M	11.74	12.56	10.71
09/04/00	15.31	16.67	13.83	14.92	15.78	13.90	M	M	M	10.88	12.09	9.62
09/05/00	14.79	16.04	13.21	14.38	15.31	13.13	8.8	11.5	7.0	10.37	11.94	8.70
09/06/00	14.46	15.88	12.75	14.16	15.15	12.82	8.8	11.7	6.9	10.20	11.79	8.54
09/07/00	14.47	15.88	12.75	14.23	15.31	12.98	9.4	12.1	7.5	10.80	12.41	9.31
09/08/00	14.77	16.19	13.06	14.48	15.47	13.28	9.9	12.4	8.1	11.09	12.56	9.62
09/09/00	14.83	16.04	13.21	14.52	15.47	13.28	9.8	12.4	8.1	11.15	12.72	9.62
09/10/00	15.16	16.36	13.68	14.80	15.78	13.59	10.2	12.8	8.4	11.34	12.87	9.93
09/11/00	15.54	16.83	13.98	14.99	15.94	13.74	10.2	12.9	8.3	11.61	13.03	10.24
09/12/00	15.36	16.51	13.83	14.81	15.78	13.59	10.0	11.5	8.6	V	V	V
09/13/00	16.11	17.31	14.77	15.60	16.42	14.52	11.8	14.0	10.3	V	V	V
09/14/00	16.76	18.11	15.24	16.03	16.89	14.99	12.4	14.6	11.1	V	V	V
09/15/00	17.18	18.43	15.72	16.32	17.06	15.15	12.3	14.6	10.7	V	V	V
09/16/00	16.79	17.79	15.24	15.88	16.58	14.68	11.4	14.0	9.5	V	V	V
09/17/00	16.48	17.47	14.92	15.69	16.58	14.52	11.9	14.1	10.3	V	V	V
09/18/00	16.69	17.79	15.24	15.88	16.73	14.68	11.9	14.1	10.3	V	V	V
09/19/00	16.95	18.11	15.56	16.10	16.89	14.99	12.2	14.3	10.6	V	V	V
09/20/00	17.32	18.43	15.88	16.42	17.21	15.31	12.7	14.8	11.2	V	V	V
09/21/00	17.35	18.11	16.19	16.43	17.21	15.62	12.4	14.0	11.4	V	V	V
09/22/00	16.24	17.47	15.41	15.71	16.58	15.15	10.7	12.1	9.5	V	V	V
09/23/00	14.86	15.72	13.68	14.64	15.31	13.59	9.0	11.1	7.5	V	V	V
09/24/00	14.47	15.56	13.06	14.46	15.31	13.28	9.4	11.8	7.8	V	V	V
09/25/00	14.41	15.56	13.06	14.50	15.31	13.44	9.5	11.7	8.0	V	V	V
09/26/00	14.33	15.41	12.91	14.45	15.31	13.44	9.4	11.4	7.8	V	V	V
09/27/00	14.31	15.41	13.06	14.47	15.31	13.44	9.8	11.7	8.4	V	V	V
09/28/00	14.33	15.24	13.06	14.54	15.31	13.59	9.9	11.7	8.7	V	V	V
09/29/00	14.29	15.41	13.06	14.48	15.15	13.44	10.1	12.1	8.7	V	V	V
09/30/00	14.43	15.41	13.06	14.57	15.47	13.44	10.4	12.3	9.0	V	V	V

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Chiquito Creek upstream of Mammoth Pool			Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	14.66	15.41	13.52	14.74	15.47	13.74	10.2	12.0	8.9	V	V	V
10/02/00	14.51	15.41	13.37	14.52	15.15	13.44	10.2	12.0	8.9	V	V	V
10/03/00	14.36	15.24	13.21	14.51	15.15	13.59	10.0	11.7	8.7	V	V	V
10/04/00	14.05	14.92	12.91	14.29	14.83	13.28	9.6	11.4	8.3	V	V	V
10/05/00	13.89	14.92	12.75	14.24	14.99	13.28	9.9	11.5	8.7	V	V	V
10/06/00	13.84	14.77	12.59	14.26	14.99	13.28	10.0	11.7	8.7	V	V	V
10/07/00	14.03	14.92	12.91	14.35	14.83	13.59	10.2	11.8	9.0	V	V	V
10/08/00	14.09	14.92	13.06	14.41	14.99	13.44	10.1	11.5	8.7	V	V	V
10/09/00	13.83	14.45	12.91	14.25	14.83	13.44	9.4	10.3	8.4	V	V	V
10/10/00	12.70	13.98	11.82	13.05	14.37	12.36	6.1	8.7	5.5	V	V	V
10/11/00	11.31	11.82	10.58	12.18	12.67	11.74	5.3	5.6	4.9	V	V	V
10/12/00	10.87	11.67	10.12	12.00	12.67	11.43	5.5	6.3	4.9	V	V	V
10/13/00	10.36	11.21	9.34	11.57	12.20	10.66	5.5	7.2	4.4	V	V	V
10/14/00	10.27	11.36	9.18	11.77	12.51	10.81	6.2	7.8	5.2	V	V	V
10/15/00	10.32	11.36	9.18	11.87	12.67	10.97	6.7	8.3	5.6	V	V	V
10/16/00	10.51	11.67	9.34	12.07	12.82	11.12	7.3	9.0	6.3	V	V	V
10/17/00	10.73	11.82	9.64	12.23	12.98	11.27	7.5	8.9	6.4	V	V	V
10/18/00	10.78	11.67	9.80	12.24	12.98	11.27	7.8	9.3	6.6	V	V	V
10/19/00	10.83	11.82	9.80	12.26	12.98	11.27	7.8	9.2	6.7	V	V	V
10/20/00	10.93	11.82	9.96	12.41	13.13	11.58	7.7	9.0	6.6	V	V	V
10/21/00	10.73	11.36	10.12	12.04	12.67	11.27	7.1	8.0	5.8	V	V	V
10/22/00	9.42	10.12	8.72	11.00	11.58	10.34	5.2	6.1	4.4	V	V	V
10/23/00	8.51	9.34	7.49	10.60	11.27	9.72	5.3	6.7	4.4	V	V	V
10/24/00	8.64	9.64	7.64	10.93	11.58	10.19	5.9	7.0	5.0	V	V	V
10/25/00	8.87	9.49	8.11	11.09	11.58	10.34	6.0	6.7	5.3	V	V	V
10/26/00	9.02	9.34	8.42	11.12	11.43	10.34	5.4	6.3	4.5	V	V	V
10/27/00	8.04	8.57	7.18	10.42	10.97	9.57	4.6	5.9	3.9	V	V	V
10/28/00				10.82	11.27	10.19	5.0	5.9	4.2	V	V	V
10/29/00				10.30	11.12	9.26	4.7	5.5	3.4	V	V	V
10/30/00				9.12	9.57	8.49	3.0	3.8	2.2	V	V	V
10/31/00				8.89	9.41	8.03	2.9	4.1	2.2	V	V	V

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Saginaw Creek		
Date	Mean	Maximum	Minimum
05/01/00			
05/02/00			
05/03/00			
05/04/00			
05/05/00			
05/06/00			
05/07/00			
05/08/00			
05/09/00			
05/10/00			
05/11/00			
05/12/00			
05/13/00			
05/14/00			
05/15/00			
05/16/00			
05/17/00			
05/18/00			
05/19/00			
05/20/00			
05/21/00			
05/22/00			
05/23/00			
05/24/00			
05/25/00			
05/26/00			
05/27/00			
05/28/00			
05/29/00			
05/30/00			
05/31/00			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

Date	Saginaw Creek		
	Mean	Maximum	Minimum
06/01/00			
06/02/00			
06/03/00			
06/04/00			
06/05/00			
06/06/00			
06/07/00			
06/08/00			
06/09/00			
06/10/00			
06/11/00			
06/12/00			
06/13/00			
06/14/00			
06/15/00			
06/16/00			
06/17/00			
06/18/00			
06/19/00			
06/20/00			
06/21/00			
06/22/00			
06/23/00			
06/24/00			
06/25/00			
06/26/00			
06/27/00			
06/28/00			
06/29/00			
06/30/00			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Saginaw Creek		
Date	Mean	Maximum	Minimum
07/01/00			
07/02/00			
07/03/00			
07/04/00			
07/05/00			
07/06/00			
07/07/00			
07/08/00			
07/09/00			
07/10/00			
07/11/00			
07/12/00			
07/13/00			
07/14/00			
07/15/00			
07/16/00			
07/17/00			
07/18/00	21.43	23.83	19.36
07/19/00	21.53	24.00	19.36
07/20/00	21.92	24.69	19.68
07/21/00	22.46	25.22	20.32
07/22/00	22.77	25.73	20.81
07/23/00	23.09	26.26	20.65
07/24/00	23.37	26.61	21.31
07/25/00	23.73	26.08	21.31
07/26/00	23.63	26.08	21.48
07/27/00	F	F	F
07/28/00	F	F	F
07/29/00	F	F	F
07/30/00	F	F	F
07/31/00	F	F	F

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Saginaw Creek		
Date	Mean	Maximum	Minimum
08/01/00	F	F	F
08/02/00	F	F	F
08/03/00	F	F	F
08/04/00	F	F	F
08/05/00	F	F	F
08/06/00	F	F	F
08/07/00	F	F	F
08/08/00	F	F	F
08/09/00	F	F	F
08/10/00	F	F	F
08/11/00	F	F	F
08/12/00	F	F	F
08/13/00	F	F	F
08/14/00	F	F	F
08/15/00	F	F	F
08/16/00	F	F	F
08/17/00	F	F	F
08/18/00	F	F	F
08/19/00	F	F	F
08/20/00	F	F	F
08/21/00	F	F	F
08/22/00	V	V	V
08/23/00	V	V	V
08/24/00	V	V	V
08/25/00	V	V	V
08/26/00	V	V	V
08/27/00	V	V	V
08/28/00	V	V	V
08/29/00	V	V	V
08/30/00	V	V	V
08/31/00	V	V	V

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Saginaw Creek		
Date	Mean	Maximum	Minimum
09/01/00	V	V	V
09/02/00	V	V	V
09/03/00	V	V	V
09/04/00	V	V	V
09/05/00	V	V	V
09/06/00	V	V	V
09/07/00	V	V	V
09/08/00	V	V	V
09/09/00	V	V	V
09/10/00	V	V	V
09/11/00	V	V	V
09/12/00	V	V	V
09/13/00	V	V	V
09/14/00	V	V	V
09/15/00	V	V	V
09/16/00	V	V	V
09/17/00	V	V	V
09/18/00	V	V	V
09/19/00	V	V	V
09/20/00	V	V	V
09/21/00	V	V	V
09/22/00	V	V	V
09/23/00	V	V	V
09/24/00	V	V	V
09/25/00	V	V	V
09/26/00	V	V	V
09/27/00	V	V	V
09/28/00	V	V	V
09/29/00	V	V	V
09/30/00	V	V	V

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2000

	Saginaw Creek		
Date	Mean	Maximum	Minimum
10/01/00	V	V	V
10/02/00	V	V	V
10/03/00	V	V	V
10/04/00	V	V	V
10/05/00	V	V	V
10/06/00	V	V	V
10/07/00	V	V	V
10/08/00	V	V	V
10/09/00	V	V	V
10/10/00	V	V	V
10/11/00	V	V	V
10/12/00	V	V	V
10/13/00	V	V	V
10/14/00	V	V	V
10/15/00	V	V	V
10/16/00	V	V	V
10/17/00	V	V	V
10/18/00	V	V	V
10/19/00	V	V	V
10/20/00	V	V	V
10/21/00	V	V	V
10/22/00	V	V	V
10/23/00	V	V	V
10/24/00	V	V	V
10/25/00	V	V	V
10/26/00	V	V	V
10/27/00	V	V	V
10/28/00	V	V	V
10/29/00	V	V	V
10/30/00	V	V	V
10/31/00	V	V	V

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool			Chiquito Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01															
05/02/01															
05/03/01															
05/04/01															
05/05/01															
05/06/01															
05/07/01															
05/08/01															
05/09/01															
05/10/01															
05/11/01															
05/12/01															
05/13/01															
05/14/01															
05/15/01															
05/16/01															
05/17/01															
05/18/01															
05/19/01															
05/20/01															
05/21/01															
05/22/01															
05/23/01															
05/24/01															
05/25/01															
05/26/01															
05/27/01															
05/28/01															
05/29/01															
05/30/01															
05/31/01															

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool			Chiquito Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01															
06/02/01															
06/03/01															
06/04/01															
06/05/01															
06/06/01	13.5	15.4	11.7	13.7	16.6	11.0	13.0	15.2	10.7	13.0	16.3	9.9	15.1	17.1	13.2
06/07/01	14.6	16.3	12.9	14.6	17.4	12.1	14.0	15.7	12.0	14.1	17.2	11.3	16.2	18.2	14.2
06/08/01	14.9	16.3	13.2	14.6	17.4	11.9	13.7	15.4	11.6	13.8	16.9	10.8	16.7	18.4	14.9
06/09/01	14.3	15.9	12.8	14.3	17.1	11.8	13.5	15.1	11.5	13.5	16.4	10.7	16.3	17.9	14.5
06/10/01	14.3	15.9	12.8	14.2	17.1	12.1	13.5	15.1	11.8	13.5	16.3	11.1	16.3	18.0	14.5
06/11/01	13.7	15.1	12.1	13.7	16.4	11.1	13.0	14.3	11.2	12.8	15.3	10.2	15.9	17.4	14.2
06/12/01	14.0	15.6	12.4	14.0	16.8	11.6	13.3	15.1	11.5	13.3	16.4	10.7	16.2	17.9	14.4
06/13/01	13.3	14.6	11.7	13.4	16.1	10.8	12.7	14.3	10.7	12.5	15.5	9.7	15.8	17.4	13.9
06/14/01	13.1	14.8	11.4	13.5	16.3	10.8	12.8	14.4	10.9	12.8	15.8	9.9	15.7	17.6	13.8
06/15/01	13.8	15.6	12.1	14.1	17.1	11.5	13.5	15.2	11.5	13.6	16.7	10.7	16.3	18.4	14.2
06/16/01	14.4	16.0	12.8	14.7	17.6	11.9	14.1	15.9	12.0	14.3	17.4	11.3	17.0	18.8	14.9
06/17/01	14.8	16.2	13.4	14.9	17.4	12.5	14.5	16.2	12.6	14.7	17.5	12.1	17.4	19.0	15.5
06/18/01	14.5	16.0	12.9	14.6	17.4	11.9	14.0	15.7	11.8	14.3	17.4	11.3	17.2	19.0	15.2
06/19/01	14.7	16.2	13.1	14.9	17.7	12.2	14.3	16.0	12.3	14.6	17.7	11.6	17.4	19.3	15.3
06/20/01	15.1	16.7	13.5	15.4	18.2	12.9	14.9	16.8	12.9	15.3	18.5	12.4	18.0	19.7	16.0
06/21/01	15.9	17.5	14.3	16.1	18.9	13.5	15.6	17.6	13.5	16.1	19.3	13.1	18.8	20.6	16.8
06/22/01	16.5	18.1	14.9	16.5	19.2	14.2	16.4	18.2	14.6	16.9	20.0	14.1	19.4	21.4	17.4
06/23/01	16.5	17.9	15.1	16.3	19.2	14.2	16.3	18.1	14.6	16.7	19.6	14.2	19.6	21.4	17.8
06/24/01	15.5	16.7	14.1	F	F	F	15.1	16.5	13.8	15.3	17.9	13.0	18.8	20.1	17.1
06/25/01	14.3	15.7	12.8	F	F	F	14.0	15.7	12.1	14.1	16.9	11.4	17.6	19.1	15.9
06/26/01	14.8	16.2	13.5	F	F	F	14.6	16.3	13.2	15.1	18.0	12.8	18.0	19.6	16.7
06/27/01	15.2	16.7	14.0	F	F	F	15.1	16.8	13.8	15.4	18.2	13.5	18.3	20.2	16.7
06/28/01	14.9	16.5	13.2	F	F	F	15.0	17.0	12.9	15.2	18.5	12.1	18.3	20.1	16.4
06/29/01	15.6	17.1	14.0	F	F	F	15.9	17.9	13.8	16.3	19.5	13.3	19.0	20.9	17.0
06/30/01	16.0	17.5	14.4	F	F	F	16.4	18.2	14.4	16.8	19.8	13.8	19.6	21.5	17.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool			Chiquito Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	16.4	17.8	14.8	F	F	F	16.8	18.7	14.7	17.2	20.3	14.2	20.0	21.7	18.1
07/02/01	17.0	18.6	15.4	F	F	F	17.4	19.5	15.2	17.9	21.1	14.9	20.7	22.7	18.8
07/03/01	17.8	19.2	16.2	F	F	F	18.3	20.0	16.3	18.8	21.4	16.1	21.5	23.2	19.7
07/04/01	18.0	18.6	17.1	F	F	F	18.7	19.4	17.9	19.1	20.9	17.7	21.7	22.5	20.9
07/05/01	18.3	19.7	16.8	F	F	F	18.6	20.3	17.0	19.2	21.8	16.7	21.8	23.5	20.1
07/06/01	17.9	18.9	17.5	F	F	F	18.3	18.7	17.9	18.3	19.0	17.7	21.0	22.5	20.2
07/07/01	17.4	17.8	17.1	F	F	F	17.7	18.4	17.3	17.8	19.2	17.1	19.8	20.4	19.4
07/08/01	17.7	18.9	16.3	F	F	F	17.4	18.9	15.7	18.3	21.4	15.8	19.9	21.5	18.3
07/09/01	17.9	19.2	16.5	F	F	F	17.7	19.4	16.0	18.5	21.4	16.0	20.7	22.5	19.1
07/10/01	17.4	18.7	16.2	F	F	F	17.4	19.2	15.7	18.1	20.9	15.6	20.7	22.2	19.1
07/11/01	17.4	18.7	16.2	F	F	F	17.4	18.9	15.9	18.0	20.4	15.8	20.8	22.4	19.2
07/12/01	16.5	17.8	14.9	F	F	F	16.6	18.4	14.6	17.1	20.0	14.2	20.2	21.5	18.4
07/13/01	F	F	F	F	F	F	16.4	17.9	14.6	17.0	19.6	14.4	19.9	21.2	18.4
07/14/01	F	F	F	F	F	F	16.2	17.9	14.4	16.8	19.3	14.2	19.8	21.2	18.1
07/15/01	15.5	16.8	14.0	F	F	F	15.4	17.1	13.3	16.1	18.8	13.1	19.3	20.5	17.5
07/16/01	15.3	16.5	13.8	F	F	F	15.3	17.1	13.3	16.0	19.8	13.3	19.0	20.4	17.3
07/17/01	15.3	16.7	13.8	F	F	F	15.5	17.3	13.5	16.0	18.7	13.3	18.9	20.4	17.1
07/18/01	15.4	16.8	14.0	15.8	18.8	13.7	15.7	17.6	13.8	16.2	18.8	13.6	19.1	20.5	17.3
07/19/01	15.4	16.7	13.8	15.7	18.8	13.4	15.5	17.3	13.5	16.1	18.7	13.5	19.1	20.5	17.3
07/20/01	15.3	16.7	13.8	15.8	18.9	13.4	15.6	17.4	13.5	16.1	18.8	13.5	19.2	20.5	17.3
07/21/01	15.4	16.8	13.8	15.9	19.1	13.5	15.7	17.4	13.7	16.2	18.8	13.6	19.2	20.5	17.3
07/22/01	15.2	16.7	13.7	15.8	19.1	13.4	15.5	17.3	13.3	16.1	18.7	13.3	19.2	20.5	17.1
07/23/01	15.3	16.7	13.7	15.9	19.1	13.4	15.5	17.3	13.5	16.1	18.7	13.5	19.2	20.5	17.3
07/24/01	15.7	17.1	14.1	16.5	19.6	13.8	16.0	17.9	14.0	16.7	19.3	13.9	19.6	21.0	17.6
07/25/01	16.5	17.9	14.9	17.2	20.2	14.6	16.9	18.4	14.9	17.5	19.8	14.9	20.4	21.9	18.4
07/26/01	17.4	18.9	16.0	18.1	21.2	15.9	18.0	19.9	16.2	18.5	20.9	16.1	21.3	22.7	19.4
07/27/01	17.4	18.6	16.0	17.7	20.6	15.1	17.3	18.7	15.4	18.0	20.1	15.3	21.4	22.7	19.4
07/28/01	16.7	17.9	15.2	17.1	20.1	14.5	16.6	18.2	14.7	17.5	19.6	14.9	20.9	22.2	18.9
07/29/01	16.2	17.5	14.6	16.7	19.9	14.0	16.2	17.9	14.3	17.1	19.3	14.5	20.4	21.5	18.6
07/30/01	15.8	17.0	14.4	16.5	19.3	14.0	16.0	17.6	14.3	16.8	18.8	14.4	20.0	20.9	18.4
07/31/01	16.1	17.5	14.8	17.0	20.1	14.5	16.6	18.4	14.7	17.2	19.6	14.9	20.1	21.4	18.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool			Chiquito Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	16.8	19.2	14.9	17.1	19.9	14.5	16.7	18.4	14.7	17.4	20.0	14.9	20.4	21.7	18.8
08/02/01	F	F	F	17.4	20.2	15.1	17.2	18.9	15.4	17.9	20.3	15.5	20.9	22.2	19.1
08/03/01	F	F	F	17.6	20.6	15.4	17.4	19.1	15.9	18.1	20.3	16.0	21.2	22.2	19.7
08/04/01	F	F	F	16.9	19.8	14.6	16.6	17.9	15.1	17.5	19.6	15.0	20.7	21.7	19.2
08/05/01	15.8	16.8	14.9	16.5	19.6	13.8	15.9	17.6	14.0	17.0	19.5	14.1	20.2	21.2	18.6
08/06/01	15.9	17.0	15.1	16.8	19.8	14.5	16.3	17.8	14.4	17.4	19.6	14.9	20.4	21.7	18.8
08/07/01	16.3	17.5	15.9	17.7	20.7	15.9	17.6	19.4	15.9	18.5	20.6	16.3	21.4	22.7	19.9
08/08/01	16.6	17.8	16.2	18.3	21.2	16.7	18.4	20.0	16.8	19.1	21.1	17.1	22.2	23.2	21.0
08/09/01	16.6	17.8	16.0	18.1	21.1	16.4	18.2	19.7	16.6	19.0	20.9	16.9	22.3	23.2	21.0
08/10/01	16.6	17.9	16.0	18.0	20.9	16.2	18.2	19.9	16.6	18.9	20.8	16.9	22.1	23.0	20.9
08/11/01	16.5	17.8	15.7	17.7	20.6	15.6	17.7	19.2	16.0	18.5	20.4	16.3	21.7	22.7	20.5
08/12/01	16.5	17.8	15.9	17.7	20.4	15.7	17.5	19.1	16.0	18.5	20.4	16.4	21.6	22.5	20.4
08/13/01	16.4	17.8	15.7	17.3	20.2	15.3	17.2	18.7	15.5	18.2	20.3	16.1	21.5	22.4	20.2
08/14/01	16.7	18.1	15.6	17.2	20.1	15.1	16.9	18.4	15.4	18.1	20.4	16.0	21.3	22.2	20.1
08/15/01	16.6	17.8	15.6	17.2	19.8	15.3	16.7	18.1	15.2	18.1	20.6	16.0	20.9	21.7	19.9
08/16/01	16.6	17.9	15.4	17.1	19.8	15.3	16.7	18.1	15.2	18.3	21.1	16.0	20.8	21.9	19.4
08/17/01	16.7	17.9	15.4	17.1	19.9	15.1	16.6	17.9	15.1	18.6	21.9	16.0	21.0	22.0	19.7
08/18/01	17.0	18.1	15.9	17.4	20.2	15.6	17.1	18.6	15.5	19.3	23.8	16.4	21.1	22.0	19.9
08/19/01	16.9	18.1	15.9	17.3	19.9	15.6	16.9	18.4	15.5	18.8	21.4	16.4	21.2	22.0	19.9
08/20/01	16.5	17.6	15.4	16.8	19.4	14.9	16.4	17.8	14.9	18.0	20.0	16.0	20.8	21.5	19.7
08/21/01	15.5	16.2	14.6	16.1	18.0	14.3	15.4	16.5	14.3	16.7	17.9	15.3	19.8	20.9	19.1
08/22/01	14.6	15.4	13.7	15.4	17.5	13.4	14.4	15.4	13.3	15.8	17.4	14.2	18.4	19.2	17.5
08/23/01	14.6	15.7	13.4	15.4	17.6	13.4	14.6	15.9	13.0	15.9	18.0	13.9	18.1	19.1	17.0
08/24/01	15.0	16.2	14.0	15.7	18.3	13.8	15.0	16.3	13.7	16.5	19.0	14.4	18.6	19.6	17.5
08/25/01	15.6	16.8	14.4	16.1	18.6	14.3	15.5	16.8	14.1	17.5	20.4	15.0	19.4	20.5	18.1
08/26/01	16.0	17.1	14.8	16.4	18.9	14.6	15.8	17.3	14.3	18.6	23.4	15.8	19.8	20.9	18.4
08/27/01	16.4	17.5	15.2	16.7	19.4	15.1	16.2	17.8	14.7	19.5	24.1	16.4	20.2	21.2	18.9
08/28/01	16.7	17.8	15.6	17.0	19.6	15.4	16.5	17.9	15.1	19.9	24.5	16.7	20.5	21.5	19.2
08/29/01	16.8	17.9	15.9	17.1	19.6	15.6	16.7	18.1	15.4	19.4	23.1	16.7	20.7	21.7	19.6
08/30/01	16.4	17.5	15.4	16.8	19.3	15.4	16.3	17.8	15.1	18.1	20.3	16.4	20.5	21.2	19.4
08/31/01	15.9	17.0	14.8	16.4	18.9	14.6	15.7	17.1	14.4	17.4	20.1	15.5	20.0	20.9	18.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool			Chiquito Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	15.7	16.8	14.6	16.3	18.8	14.5	15.5	16.8	14.1	17.4	20.3	15.3	19.8	20.7	18.6
09/02/01	15.6	16.8	14.4	16.4	19.1	14.5	15.4	16.8	14.0	17.7	20.6	15.5	19.8	20.9	18.4
09/03/01	16.1	17.0	15.2	16.8	18.9	15.6	15.9	17.1	14.9	17.7	19.0	16.4	20.1	20.9	19.1
09/04/01	16.0	17.1	14.8	16.5	18.9	14.5	15.8	17.0	14.4	17.3	19.8	15.5	20.0	20.9	18.8
09/05/01	16.2	17.1	15.2	16.6	18.8	15.1	15.8	17.1	14.7	17.4	19.5	16.0	20.1	20.7	19.1
09/06/01	14.9	15.9	13.8	15.5	18.0	13.4	14.5	15.7	13.3	16.3	18.5	14.5	19.0	20.1	18.0
09/07/01	14.5	15.6	13.4	15.4	17.8	13.4	14.1	15.4	12.9	16.2	18.7	14.2	18.5	19.2	17.3
09/08/01	14.4	15.4	13.2	15.2	17.5	13.1	13.9	15.1	12.7	16.2	18.8	14.2	18.3	19.1	17.1
09/09/01	14.3	15.4	13.2	15.2	17.8	13.4	13.6	14.9	12.4	16.5	20.0	14.5	18.2	19.1	17.0
09/10/01	14.2	15.2	13.2	15.2	17.5	13.5	13.6	14.9	12.3	16.6	19.6	14.5	18.2	19.1	17.0
09/11/01	14.8	15.6	14.1	16.0	17.5	15.1	14.4	15.5	13.5	17.1	18.7	16.0	18.3	18.8	17.8
09/12/01	14.4	15.4	13.4	15.3	17.3	13.4	13.9	15.1	12.9	16.1	18.5	14.4	17.7	18.6	16.5
09/13/01	13.9	14.8	12.8	14.9	17.2	12.9	13.4	14.3	12.3	15.4	17.7	13.6	17.6	18.4	16.4
09/14/01	13.7	14.6	12.6	14.7	16.8	12.6	12.9	13.8	11.8	15.3	17.9	13.5	17.3	18.1	16.2
09/15/01	13.5	14.4	12.4	14.6	16.8	12.7	12.7	13.8	11.6	15.2	17.7	13.5	17.2	18.0	16.0
09/16/01	13.4	14.3	12.3	14.5	16.8	12.7	12.5	13.7	11.3	15.0	16.7	13.3	16.9	17.6	15.9
09/17/01	13.5	14.4	12.4	14.6	16.8	12.7	12.7	13.8	11.6	15.0	16.7	13.3	16.9	17.6	15.7
09/18/01	13.8	14.8	12.8	14.9	17.0	13.1	13.0	14.0	12.0	15.2	17.1	13.6	17.0	17.8	15.9
09/19/01	13.9	14.9	12.8	14.9	17.2	13.1	13.0	14.0	12.0	15.4	17.5	13.8	17.1	18.0	16.0
09/20/01	14.1	15.1	13.1	15.1	17.3	13.4	13.2	14.3	12.1	15.6	17.4	14.1	17.2	18.1	16.2
09/21/01	14.1	14.9	13.1	15.0	17.2	13.2	13.0	14.0	12.0	15.6	17.7	13.9	17.2	18.0	16.0
09/22/01	14.1	14.9	13.2	15.0	17.0	13.4	13.1	14.0	12.3	15.4	16.9	13.9	17.1	17.8	16.0
09/23/01	13.8	14.4	12.9	14.7	16.2	13.1	12.7	13.5	11.8	15.0	16.1	13.8	16.7	17.3	15.9
09/24/01	13.4	14.4	12.3	14.3	16.8	12.3	12.4	13.3	11.2	14.7	16.6	13.0	16.2	17.0	14.9
09/25/01	14.5	15.6	13.7	15.9	18.0	14.3	13.6	15.1	12.3	15.7	17.1	14.7	V	V	V
09/26/01	13.8	14.6	12.9	14.7	16.4	12.7	12.9	13.7	12.1	14.6	16.0	13.0	V	V	V
09/27/01	13.3	14.1	12.4	14.3	16.0	12.3	12.3	13.0	11.3	14.2	15.6	12.5	V	V	V
09/28/01	13.0	13.8	12.1	14.1	16.0	12.3	11.9	12.7	11.2	13.9	15.2	12.5	V	V	V
09/29/01	12.6	13.5	11.5	13.7	15.7	11.7	11.5	12.4	10.6	13.6	15.2	12.1	V	V	V
09/30/01	12.8	13.7	11.7	13.8	15.9	12.0	11.4	12.1	10.4	13.8	15.5	12.1	V	V	V

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Jackass Creek upstream of Mammoth Pool			Mill Creek upstream of Mammoth Pool			Kaiser Creek upstream of Mammoth Pool			Daulton Creek upstream of Mammoth Pool			Chiquito Creek upstream of Mammoth Pool		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	13.4	14.4	12.4	14.5	16.7	12.9	12.0	12.7	10.9	14.4	15.5	13.0	V	V	V
10/02/01	13.8	14.6	12.8	14.6	16.7	12.9	12.4	13.2	11.5	14.6	16.1	13.1	V	V	V
10/03/01	13.9	14.6	13.1	14.7	16.7	13.1	12.4	13.0	11.5	14.8	16.4	13.3	V	V	V
10/04/01	13.9	14.6	13.1	14.8	16.8	13.4	12.5	13.2	11.6	14.8	16.1	13.5	V	V	V
10/05/01	13.8	14.4	13.2	14.7	16.2	13.7	12.3	13.0	11.8	14.4	15.3	13.6	V	V	V
10/06/01	12.6	13.4	11.8	13.6	14.9	11.8	11.3	11.8	10.6	13.2	14.2	11.9	V	V	V
10/07/01	12.0	12.6	11.0	13.0	14.6	10.9	10.6	11.0	9.8	12.6	13.9	11.1	V	V	V
10/08/01	12.1	12.8	11.4	13.3	14.8	11.7	10.8	11.5	10.1	12.9	14.1	11.8	V	V	V
10/09/01	11.9	12.4	11.2	13.0	14.3	11.2	10.5	11.0	9.9	12.6	13.6	11.3	V	V	V
10/10/01	11.1	11.8	10.1	12.3	13.8	10.3	9.7	10.1	9.0	11.9	13.1	10.4	V	V	V
10/11/01	11.0	11.7	10.3	12.3	13.7	10.6	9.6	10.3	9.0	11.9	13.0	10.7	V	V	V
10/12/01	10.7	11.5	9.8	12.0	13.5	9.9	9.4	9.9	8.7	11.6	13.0	10.2	V	V	V
10/13/01	10.6	11.4	9.7	11.8	13.4	9.6	9.0	9.5	8.2	11.5	12.8	9.9	V	V	V
10/14/01	10.7	11.5	9.8	11.8	13.4	9.8	8.8	9.5	7.9	11.5	12.8	10.1	V	V	V
10/15/01	10.9	11.7	10.1	12.1	13.8	10.4	9.0	9.6	8.4	11.8	13.0	10.5	V	V	V
10/16/01	10.9	11.7	10.1	12.1	13.7	10.4	9.1	9.6	8.4	11.9	13.0	10.7	V	V	V
10/17/01															
10/18/01															
10/19/01															
10/20/01															
10/21/01															
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10/23/01															
10/24/01															
10/25/01															
10/26/01															
10/27/01															
10/28/01															
10/29/01															
10/30/01															
10/31/01															

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR			Saginaw Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01							8.5	10.7	6.5	16.4	19.2	13.9
05/02/01							7.8	9.4	6.5	15.1	17.1	13.0
05/03/01							6.4	8.4	4.5	12.0	15.0	9.6
05/04/01							7.1	9.1	4.9	12.8	16.1	10.3
05/05/01							8.0	10.2	5.9	14.3	17.6	12.0
05/06/01							9.0	11.3	6.8	15.9	19.0	13.4
05/07/01							10.0	12.4	8.0	17.4	20.6	15.0
05/08/01							10.5	12.5	8.5	17.8	21.1	15.5
05/09/01							10.5	12.4	8.5	17.8	21.1	15.6
05/10/01							10.8	12.8	8.8	18.0	21.5	15.8
05/11/01							11.2	13.1	9.3	18.3	22.1	16.3
05/12/01							10.5	11.1	9.7	17.3	18.0	16.6
05/13/01							10.5	12.1	9.0	17.2	20.2	15.5
05/14/01							10.8	12.7	8.8	17.3	20.8	15.2
05/15/01							11.0	12.4	9.4	17.5	20.3	15.8
05/16/01							12.0	13.8	10.2	18.7	22.1	16.8
05/17/01							12.0	13.9	10.2	18.7	22.3	16.8
05/18/01				9.1	12.4	7.0	11.9	13.8	10.2	18.6	22.3	16.8
05/19/01				9.7	13.3	7.1	12.1	14.1	10.1	18.8	22.8	16.4
05/20/01				10.1	13.8	7.1	12.5	14.4	10.4	19.3	23.7	16.8
05/21/01				10.9	14.4	8.1	13.2	15.2	11.3	20.0	24.5	17.4
05/22/01				11.5	14.6	9.3	13.7	15.6	11.9	20.8	25.4	18.2
05/23/01				11.6	15.2	9.0	14.0	16.0	12.2	21.3	26.3	18.7
05/24/01				11.5	14.9	9.0	14.0	16.0	12.2	21.4	26.3	18.9
05/25/01				11.0	14.2	9.0	13.5	15.6	11.8	20.9	25.9	18.5
05/26/01				9.8	12.9	7.6	12.7	14.7	10.8	20.1	25.0	17.6
05/27/01				9.9	13.3	7.8	12.4	14.4	10.7	19.9	25.0	17.4
05/28/01				9.6	12.7	7.6	11.9	13.8	10.2	19.2	24.0	16.8
05/29/01				10.5	14.2	8.1	12.1	14.2	10.1	19.4	24.2	16.8
05/30/01				11.5	15.3	8.8	13.3	15.6	11.1	20.7	25.6	17.7
05/31/01				12.4	16.0	9.8	14.2	16.4	12.1	21.9	27.0	18.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR			Saginaw Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01				12.0	15.2	9.8	14.3	16.1	12.5	22.3	26.8	19.7
06/02/01				10.2	12.7	8.2	12.8	14.9	11.1	21.0	26.6	18.4
06/03/01				8.6	11.9	6.2	11.2	13.3	9.3	19.7	25.9	16.6
06/04/01				9.2	12.4	7.0	11.2	13.5	9.3	19.6	25.0	16.8
06/05/01				9.3	12.5	7.0	11.4	13.6	9.4	19.7	24.9	17.1
06/06/01	14.8	16.3	13.3	10.8	14.6	8.1	12.2	14.5	10.2	20.4	25.7	17.4
06/07/01	15.4	17.1	13.8	11.5	15.3	8.5	13.1	15.6	11.0	D	D	D
06/08/01	15.6	17.1	14.1	11.1	14.9	8.4	13.4	15.8	11.4	D	D	D
06/09/01	15.3	17.0	13.8	10.8	14.2	8.4	13.0	15.3	11.0	D	D	D
06/10/01	15.3	17.0	14.0	10.6	13.8	8.4	12.8	15.2	11.0	D	D	D
06/11/01	15.1	16.5	13.5	10.1	13.0	7.9	12.3	14.5	10.4	D	D	D
06/12/01	15.3	16.8	14.0	10.3	13.3	8.2	12.5	14.4	10.7	D	D	D
06/13/01	14.8	16.3	13.3	9.4	13.0	6.5	11.8	14.1	9.7	D	D	D
06/14/01	14.9	16.5	13.3	10.1	13.6	7.6	12.0	14.5	9.7	D	D	D
06/15/01	15.2	17.0	13.7	10.9	14.6	8.2	12.7	15.3	10.4	D	D	D
06/16/01	15.5	17.3	13.8	11.4	15.2	8.7	13.3	15.8	11.1	D	D	D
06/17/01	15.8	17.4	14.3	11.8	15.0	9.4	13.7	16.1	11.8	D	D	D
06/18/01	15.7	17.4	14.0	11.1	14.9	8.2	13.5	16.1	11.3	D	D	D
06/19/01	15.8	17.6	14.1	11.4	15.2	8.8	13.6	16.3	11.4	D	D	D
06/20/01	16.2	17.9	14.6	12.3	15.8	9.8	14.1	16.6	11.9	D	D	D
06/21/01	16.7	18.6	15.1	13.0	16.8	10.4	14.9	17.5	12.7	D	D	D
06/22/01	17.1	18.9	15.5	13.7	17.1	11.3	15.3	17.9	13.3	D	D	D
06/23/01	17.1	19.0	15.5	13.4	16.3	11.3	15.2	17.5	13.3	D	D	D
06/24/01	16.3	17.9	14.9	11.8	14.2	10.1	13.8	16.0	12.1	D	D	D
06/25/01	15.8	17.4	14.1	10.8	14.1	8.5	12.9	15.3	10.7	D	D	D
06/26/01	16.2	17.8	15.1	11.7	14.7	9.9	13.2	15.2	11.8	D	D	D
06/27/01	16.4	18.1	15.2	12.0	14.9	10.4	13.5	15.8	11.9	D	D	D
06/28/01	16.3	18.1	14.6	11.9	15.7	9.3	13.4	16.0	11.1	D	D	D
06/29/01	16.9	18.7	15.2	12.9	16.5	10.2	14.4	17.2	12.1	D	D	D
06/30/01	17.2	19.0	15.5	13.2	16.8	10.2	14.9	17.7	12.5	D	D	D

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR			Saginaw Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	17.5	19.4	15.7	13.8	17.4	11.3	15.4	18.4	13.0	D	D	D
07/02/01	18.0	19.9	16.3	14.5	18.2	11.8	16.3	19.2	13.8	D	D	D
07/03/01	18.7	20.3	17.0	15.5	18.4	13.3	17.4	20.0	15.0	D	D	D
07/04/01	18.8	19.7	18.1	16.0	17.9	14.6	17.6	18.7	16.7	D	D	D
07/05/01	19.0	20.8	17.4	15.7	18.4	13.9	17.5	19.8	15.5	D	D	D
07/06/01	18.3	19.0	17.9	14.8	15.3	14.2	16.5	17.5	16.0	D	D	D
07/07/01	17.9	18.4	17.6	14.7	16.8	13.8	16.0	16.7	15.5	D	D	D
07/08/01	18.4	19.9	16.8	14.8	17.4	13.0	16.2	17.9	14.5	D	D	D
07/09/01	18.7	20.3	17.1	14.8	17.7	12.7	16.6	19.0	14.7	D	D	D
07/10/01	18.4	19.9	17.0	14.7	17.6	12.9	16.3	18.7	14.2	D	D	D
07/11/01	18.3	20.0	17.1	14.3	16.9	12.5	16.1	18.4	14.2	D	D	D
07/12/01	17.8	19.5	16.2	13.2	16.6	11.0	15.2	17.7	12.8	D	D	D
07/13/01	17.8	19.2	16.3	13.0	16.3	10.5	15.2	17.5	13.1	D	D	D
07/14/01	17.6	19.4	16.0	12.9	15.8	10.8	14.9	17.2	12.8	D	D	D
07/15/01	17.1	18.9	15.4	12.2	15.3	9.8	14.3	16.6	12.1	D	D	D
07/16/01	17.0	18.6	15.5	12.1	14.9	10.1	13.9	16.1	11.9	D	D	D
07/17/01	17.1	18.7	15.5	12.2	15.3	9.9	13.9	16.3	11.8	D	D	D
07/18/01	17.2	18.9	15.5	12.5	15.5	10.4	14.1	16.4	11.9	D	D	D
07/19/01	17.1	18.7	15.5	12.2	15.3	9.8	14.0	16.3	11.8	D	D	D
07/20/01	17.2	18.9	15.5	12.4	15.5	10.2	14.1	16.4	11.9	D	D	D
07/21/01	17.2	18.7	15.5	12.4	15.3	10.4	14.0	16.4	11.8	D	D	D
07/22/01	17.1	18.7	15.4	12.2	15.3	9.9	13.9	16.3	11.6	D	D	D
07/23/01	17.1	18.7	15.5	12.3	15.2	10.2	14.0	16.3	11.6	D	D	D
07/24/01	17.6	19.0	16.0	13.0	16.3	10.7	14.6	16.9	12.2	D	D	D
07/25/01	18.3	19.7	16.6	13.9	16.6	11.6	15.6	17.9	13.3	D	D	D
07/26/01	19.0	20.5	17.4	14.9	17.7	12.9	16.4	18.7	14.4	D	D	D
07/27/01	18.7	20.0	17.1	13.9	17.1	11.5	16.2	18.5	14.1	D	D	D
07/28/01	18.2	19.7	16.6	13.7	16.6	11.5	15.5	17.9	13.1	D	D	D
07/29/01	17.9	19.4	16.3	13.3	16.1	11.0	15.0	17.2	12.7	D	D	D
07/30/01	17.6	18.7	16.3	12.9	15.5	11.0	14.5	16.6	12.4	D	D	D
07/31/01	18.1	19.4	16.6	13.4	16.5	11.3	14.8	17.1	12.7	D	D	D

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR			Saginaw Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	18.2	19.5	16.6	13.7	16.8	11.5	15.1	17.4	12.8	D	D	D
08/02/01	18.5	19.9	17.0	14.2	17.1	12.1	15.6	17.7	13.5	D	D	D
08/03/01	18.6	19.9	17.3	14.4	16.8	12.7	15.7	17.7	13.8	D	D	D
08/04/01	18.1	19.4	16.5	13.4	16.0	11.2	15.0	17.1	12.8	D	D	D
08/05/01	17.8	19.7	15.8	12.8	16.1	10.2	14.6	16.9	12.1	D	D	D
08/06/01	18.2	20.2	16.0	13.7	16.8	11.5	15.5	17.9	13.1	D	D	D
08/07/01	19.3	21.3	17.1	15.1	17.7	13.2	16.8	18.8	14.7	D	D	D
08/08/01	19.8	21.8	18.1	15.5	17.9	13.6	17.2	19.2	15.5	D	D	D
08/09/01	19.6	21.8	17.3	15.3	17.6	13.5	16.7	18.7	14.7	D	D	D
08/10/01	19.7	22.1	17.4	15.2	17.6	13.5	16.2	19.0	13.1	D	D	D
08/11/01	19.8	23.3	17.1	14.6	17.3	12.4	15.7	19.3	12.1	D	D	D
08/12/01	19.8	23.0	17.4	14.5	16.8	12.7	15.5	19.2	12.1	D	D	D
08/13/01	19.7	23.7	17.0	14.3	16.9	12.4	15.1	19.2	10.8	D	D	D
08/14/01	19.3	22.3	16.6	14.2	16.6	12.2	15.1	19.6	11.1	D	D	D
08/15/01	19.3	23.0	16.8	14.1	16.6	12.2	15.3	19.8	11.1	D	D	D
08/16/01	19.4	22.6	16.6	14.0	16.6	12.1	15.7	21.4	11.0	D	D	D
08/17/01	19.6	23.0	16.3	14.2	16.3	12.4	16.3	21.1	11.9	D	D	D
08/18/01	19.9	23.5	16.6	14.6	16.9	12.9	16.5	22.1	12.2	D	D	D
08/19/01	19.8	23.5	16.6	14.4	16.5	12.9	16.1	21.1	11.4	D	D	D
08/20/01	19.1	23.5	15.7	13.7	15.7	12.2	14.7	20.0	10.1	D	D	D
08/21/01	18.1	22.1	14.7	12.6	14.4	11.5	13.3	18.5	9.0	D	D	D
08/22/01	17.0	20.0	14.7	12.1	14.2	10.5	12.0	15.6	8.0	D	D	D
08/23/01	17.2	20.5	14.7	12.0	14.2	10.2	12.8	15.8	9.4	D	D	D
08/24/01	17.8	20.8	15.1	12.4	14.9	10.5	13.2	16.3	10.1	D	D	D
08/25/01	18.2	21.5	15.8	13.1	15.5	11.3	14.3	18.8	10.8	D	D	D
08/26/01	18.9	22.6	16.0	13.7	16.0	12.1	16.3	22.6	12.2	D	D	D
08/27/01	19.4	23.8	15.8	14.0	16.3	12.2	16.5	23.8	11.4	D	D	D
08/28/01	20.0	24.7	16.2	14.3	16.5	12.7	16.8	23.8	11.9	D	D	D
08/29/01	19.7	23.8	16.2	14.2	16.1	12.7	16.1	21.3	11.8	D	D	D
08/30/01	19.1	23.1	15.7	13.6	15.2	12.5	14.9	19.8	11.0	D	D	D
08/31/01	18.4	22.3	14.7	13.1	15.3	11.5	14.5	20.5	9.3	D	D	D

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR			Saginaw Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	18.3	22.3	14.7	12.8	15.0	11.2	14.6	21.1	9.4	D	D	D
09/02/01	18.4	22.1	14.9	13.1	15.3	11.5	15.6	22.6	10.5	D	D	D
09/03/01	19.0	22.5	16.5	13.6	14.6	12.7	15.9	21.1	12.1	D	D	D
09/04/01	18.4	21.7	14.9	13.4	15.7	11.9	15.5	20.9	10.5	D	D	D
09/05/01	18.4	20.8	15.8	13.5	14.9	12.4	14.8	19.8	10.4	D	D	D
09/06/01	17.2	21.7	13.2	12.1	13.8	10.7	13.5	20.3	8.2	D	D	D
09/07/01	17.3	21.7	13.3	12.1	13.9	10.5	13.8	21.6	7.7	D	D	D
09/08/01	17.0	21.3	12.9	11.8	13.8	10.2	13.6	22.1	7.3	D	D	D
09/09/01	17.2	21.3	13.5	11.9	13.8	10.5	15.0	21.8	10.4	D	D	D
09/10/01	17.1	20.8	13.3	12.0	14.1	10.4	14.1	20.6	8.2	D	D	D
09/11/01	17.6	19.7	15.8	12.6	13.9	11.8	14.4	18.7	10.8	D	D	D
09/12/01	16.5	20.0	12.9	11.7	13.5	10.2	12.9	18.4	7.4	D	D	D
09/13/01	16.3	20.3	12.3	10.9	13.2	9.1	12.2	18.4	7.0	D	D	D
09/14/01	16.0	19.7	12.3	10.6	12.9	8.8	12.0	15.8	8.2	D	D	D
09/15/01	16.0	20.0	12.1	10.8	12.7	9.3	12.4	17.5	8.0	D	D	D
09/16/01	15.8	19.5	12.4	10.9	12.7	9.4	11.0	13.9	7.6	D	D	D
09/17/01	16.1	20.2	12.6	11.0	13.0	9.4	11.7	13.9	9.6	D	D	D
09/18/01	16.4	20.3	13.0	11.3	13.2	9.8	12.1	14.1	10.5	D	D	D
09/19/01	16.6	20.5	13.2	11.4	13.3	9.9	12.4	14.4	10.8	D	D	D
09/20/01	16.7	20.5	13.5	11.7	13.5	10.4	12.5	14.5	10.8	D	D	D
09/21/01	16.8	21.2	13.2	11.5	13.3	10.1	12.7	14.5	11.1	D	D	D
09/22/01	16.8	21.2	13.3	11.7	13.2	10.4	12.4	14.4	10.7	D	D	D
09/23/01	15.9	18.7	13.2	11.4	12.9	10.2	12.2	14.2	10.8	D	D	D
09/24/01	15.8	19.9	12.0	11.0	12.7	9.4	12.0	14.2	9.6	D	D	D
09/25/01	16.7	18.1	15.5	12.2	13.5	11.5	13.2	14.7	12.1	D	D	D
09/26/01	15.7	16.6	14.6	10.8	12.5	9.3	12.0	13.1	10.8	D	D	D
09/27/01	15.2	17.0	13.3	10.8	12.5	9.4	11.7	13.0	10.4	D	D	D
09/28/01	14.6	16.3	12.7	10.4	11.8	9.3	11.1	12.4	9.9	D	D	D
09/29/01	14.4	16.6	12.4	10.3	11.9	9.0	10.7	12.2	9.3	D	D	D
09/30/01	14.7	16.8	12.4	10.8	12.4	9.4	11.4	13.1	10.1	D	D	D

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix C: Daily Water Temperatures in the Vicinity of the South Fork San Joaquin River Basin, Undiverted Tributaries, 2001

	Shakeflat Creek upstream of SJR			Horsethief Creek upstream of SJR			Fish Creek upstream of SJR			Saginaw Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	16.0	21.3	13.8	11.4	12.7	10.4	12.7	14.4	11.3	D	D	D
10/02/01	16.2	19.5	14.0	11.6	13.0	10.5	13.6	16.4	11.8	D	D	D
10/03/01	16.3	19.4	13.8	11.6	13.0	10.4	13.0	16.7	9.7	D	D	D
10/04/01	16.4	19.9	14.0	11.6	12.9	10.5	13.0	17.4	9.9	D	D	D
10/05/01	15.9	18.6	13.3	11.1	11.8	10.5	11.7	13.1	10.5	D	D	D
10/06/01	14.3	16.2	12.7	9.8	10.8	8.8	10.2	11.4	8.8	D	D	D
10/07/01	14.1	16.2	12.3	9.2	10.7	7.9	10.0	11.1	8.7	D	D	D
10/08/01	14.4	16.2	12.9	9.6	10.8	8.5	10.2	11.3	9.0	D	D	D
10/09/01	14.0	15.7	12.3	8.9	10.1	7.4	10.0	10.8	9.0	D	D	D
10/10/01	13.2	14.4	11.3	8.4	9.8	7.1	9.2	10.4	7.9	D	D	D
10/11/01	13.1	14.1	11.8	8.7	9.9	7.6	9.4	10.5	8.4	D	D	D
10/12/01	12.9	14.3	11.2	8.6	10.1	7.4	9.0	10.2	7.7	D	D	D
10/13/01	12.8	14.4	10.9	8.5	9.9	7.3	8.9	10.2	7.6	D	D	D
10/14/01	12.8	14.6	11.0	8.7	9.9	7.4	9.2	10.7	7.9	D	D	D
10/15/01	12.9	14.9	11.2	8.9	9.9	7.9	9.5	11.0	8.2	D	D	D
10/16/01	12.9	15.2	10.9	8.8	9.9	7.9	9.6	11.1	8.4	D	D	D
10/17/01	13.0	15.7	10.7	8.7	9.6	7.8	9.4	10.5	8.2	D	D	D
10/18/01	13.1	15.5	11.3	8.4	9.6	7.3	9.3	10.4	8.2	D	D	D
10/19/01	13.0	14.4	11.5	8.7	9.9	7.8	9.4	10.7	8.4	D	D	D
10/20/01	13.1	15.1	11.3	8.3	9.3	7.4	9.3	10.4	8.2	D	D	D
10/21/01	12.8	14.1	11.5	8.2	9.1	7.4	9.0	9.9	8.0	D	D	D
10/22/01	12.3	13.8	10.9	7.7	8.7	6.8	8.5	9.4	7.6	D	D	D
10/23/01	12.2	13.2	10.9	8.0	8.8	7.4	8.3	9.1	7.3	D	D	D
10/24/01	11.9	12.9	10.6	7.5	8.5	6.5	8.0	9.0	6.8	D	D	D
10/25/01	11.7	12.7	10.7	7.5	8.5	6.5	7.9	9.0	6.8	D	D	D
10/26/01	11.6	12.4	10.9	7.7	8.7	7.0	8.2	9.3	7.3	D	D	D
10/27/01	11.6	12.4	10.7	7.6	8.7	6.8	8.2	9.3	7.1	D	D	D
10/28/01	11.6	12.4	10.6				7.8	8.8	6.8	D	D	D
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

APPENDIX D

DAILY WATER TEMPERATURE DATA FOR THE BIG CREEK DRAINAGE

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00										11.1	13.6	8.7
05/27/00										12.6	15.5	10.2
05/28/00										12.2	15.0	9.6
05/29/00										11.3	13.9	8.7
05/30/00										10.6	12.7	8.7
05/31/00										9.6	12.1	7.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00										10.6	13.2	8.2
06/02/00										10.3	12.9	7.7
06/03/00										11.4	14.1	9.0
06/04/00										11.7	13.5	9.9
06/05/00										11.3	13.0	9.9
06/06/00				7.7	8.1	7.5				10.7	13.2	8.4
06/07/00				7.7	8.1	7.5				11.0	13.2	8.8
06/08/00				7.8	8.4	7.6				8.4	11.3	6.5
06/09/00				7.8	8.1	7.6				7.6	10.2	5.6
06/10/00				8.0	8.4	7.6				9.3	11.9	7.0
06/11/00				8.0	8.4	7.8				10.0	12.6	7.6
06/12/00				8.1	8.4	7.8				11.3	13.8	9.1
06/13/00				8.1	8.5	7.9				13.6	16.9	10.7
06/14/00	13.7	16.2	11.1	8.2	8.7	8.1				14.0	16.9	11.2
06/15/00	14.7	17.2	12.0	8.3	8.7	8.1				15.0	17.6	12.4
06/16/00	15.7	18.1	13.4	8.4	8.8	8.2				15.8	17.9	13.9
06/17/00	15.5	17.6	13.2	8.5	9.0	8.2				15.2	17.3	13.5
06/18/00	14.8	17.3	12.6	8.7	9.3	8.4				14.6	16.8	12.9
06/19/00	14.2	16.7	11.2	8.8	9.3	8.5				13.7	16.0	11.3
06/20/00	14.8	17.3	12.3	8.9	9.3	8.5	12.6	14.1	10.6	14.4	16.8	12.2
06/21/00	15.1	17.6	12.3	9.0	9.5	8.7	12.7	14.3	10.7	14.5	16.8	12.2
06/22/00	15.3	17.8	12.8	9.1	9.6	8.7	12.9	14.5	11.1	14.6	16.8	12.7
06/23/00	15.3	18.0	12.8	9.2	9.8	8.8	12.7	14.3	10.9	14.2	16.3	12.4
06/24/00	14.8	17.2	12.1	9.3	9.9	9.0	12.5	14.0	10.6	13.8	15.8	11.6
06/25/00	14.8	17.8	12.3	9.5	10.1	9.2	12.7	14.3	10.9	14.1	16.3	12.1
06/26/00	13.5	15.1	11.8	9.5	9.9	9.2	12.6	14.0	10.9	14.0	16.0	12.1
06/27/00	13.7	16.8	11.1	9.6	10.2	9.2	12.6	14.3	10.7	14.3	16.5	12.1
06/28/00	14.0	17.0	11.7	9.7	10.2	9.3	13.2	14.8	11.5	15.3	17.4	13.3
06/29/00	14.8	17.6	11.8	9.8	10.4	9.5	13.3	14.9	11.4	15.3	17.3	13.2
06/30/00	15.4	18.3	13.1	9.9	10.4	9.6	13.3	14.9	11.7	15.2	16.9	13.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	14.4	17.3	11.8	10.1	10.6	9.6	12.3	13.8	10.4	12.9	14.6	11.2
07/02/00	13.9	17.0	11.1	10.2	10.7	9.8	11.7	13.4	9.7	12.1	14.3	9.9
07/03/00	13.7	16.8	11.4	10.3	10.7	9.9	11.6	13.2	10.1	12.2	13.9	10.8
07/04/00	12.8	15.9	10.0	10.4	10.9	10.1	10.8	12.4	8.9	10.9	12.9	8.8
07/05/00	13.0	16.4	10.3	10.5	10.9	10.1	10.9	12.6	9.0	11.3	13.2	9.4
07/06/00	13.5	17.2	10.6	10.6	11.0	10.2	11.2	12.9	9.3	11.8	13.9	9.9
07/07/00	13.3	17.2	10.1	10.7	11.2	10.2	11.1	12.8	9.0	11.6	13.8	9.1
07/08/00	13.6	17.6	10.3	10.8	11.3	10.4	11.2	12.9	9.2	11.8	14.1	9.4
07/09/00	14.2	18.3	10.8	10.9	11.5	10.6	11.5	13.2	9.3	12.2	14.4	9.9
07/10/00	15.0	19.1	11.7	11.0	11.3	10.7	12.0	13.7	10.1	13.0	14.9	11.2
07/11/00	15.7	19.7	12.5	11.0	11.5	10.7	12.4	14.1	10.6	13.8	15.7	11.8
07/12/00	16.1	20.5	12.9	11.1	11.5	10.7	12.7	14.5	10.9	14.0	15.8	12.2
07/13/00	15.6	20.5	12.1	11.1	11.6	10.9	12.4	14.3	10.3	13.4	15.7	11.0
07/14/00	15.7	20.7	11.8	11.2	11.6	10.9	12.4	14.1	10.3	13.2	15.4	10.8
07/15/00	16.2	21.0	12.6	11.3	11.8	10.9	13.1	14.9	10.9	13.7	15.8	11.6
07/16/00	16.0	20.4	13.2	11.3	11.6	11.0	13.7	15.4	12.0	14.0	16.2	12.6
07/17/00	15.9	21.4	12.1	11.4	11.8	11.0	12.9	14.5	11.1	13.5	15.5	11.5
07/18/00	15.8	21.5	11.7	11.5	11.9	11.2	12.5	14.3	10.4	13.1	15.2	10.7
07/19/00	15.7	21.5	11.5	11.5	11.9	11.2	12.4	14.1	10.3	12.9	14.9	10.4
07/20/00	V	V	V	11.6	12.1	11.3	12.7	14.5	10.6	13.3	15.4	11.0
07/21/00	V	V	V	11.6	12.1	11.3	12.8	14.8	10.6	13.6	15.8	11.2
07/22/00	V	V	V	11.7	12.1	11.3	12.9	14.8	10.7	13.7	15.8	11.2
07/23/00	V	V	V	11.8	12.3	11.5	12.8	14.5	10.6	13.4	15.4	11.0
07/24/00	V	V	V	11.8	12.3	11.5	13.1	14.9	11.2	13.7	15.5	11.6
07/25/00	V	V	V	11.9	12.4	11.6	13.1	14.9	11.4	13.7	15.5	11.9
07/26/00	V	V	V	12.0	12.4	11.6	13.1	14.9	11.4	13.8	15.5	12.1
07/27/00	V	V	V	12.1	12.7	11.8	12.9	14.8	10.9	13.2	15.2	11.0
07/28/00	V	V	V	12.2	12.7	11.8	12.7	14.6	10.6	12.9	14.9	10.7
07/29/00	V	V	V	12.2	12.7	11.9	13.1	14.8	11.2	13.7	15.7	11.5
07/30/00	V	V	V	12.3	12.9	12.1	14.0	15.7	12.3	15.0	16.8	13.2
07/31/00	V	V	V	12.4	12.9	12.1	14.4	16.0	12.8	15.9	17.7	14.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	V	V	V	12.4	12.9	12.3	14.9	16.7	13.5	16.7	17.7	15.4
08/02/00	V	V	V	12.5	12.9	12.3	14.5	15.7	13.2	16.2	17.1	14.7
08/03/00	V	V	V	12.6	12.9	12.3	14.5	16.2	13.1	16.1	17.7	14.6
08/04/00	V	V	V	12.6	13.2	12.4	14.7	16.5	13.1	16.4	17.9	14.7
08/05/00	V	V	V	12.7	13.3	12.4	14.3	16.0	12.6	15.6	17.3	13.8
08/06/00	V	V	V	12.8	13.3	12.6	14.3	16.0	12.8	15.5	16.9	14.1
08/07/00	V	V	V	12.8	13.3	12.6	14.0	15.7	12.4	14.9	16.5	13.5
08/08/00	V	V	V	13.0	13.3	12.7	14.2	16.2	12.1	14.3	16.2	12.9
08/09/00	V	V	V	13.0	13.5	12.7	14.0	15.6	12.1	13.7	15.7	11.8
08/10/00	V	V	V	13.1	13.5	12.7	13.2	14.8	11.4	12.8	14.9	10.7
08/11/00	V	V	V	13.1	13.6	12.9	12.8	14.5	10.7	12.5	14.4	10.4
08/12/00	V	V	V	13.2	13.6	12.9	12.8	14.6	10.7	12.7	14.6	10.5
08/13/00	V	V	V	13.3	13.6	13.0	12.8	14.6	10.9	12.7	14.3	10.8
08/14/00	V	V	V	13.4	13.8	13.0	12.7	14.6	10.7	12.7	14.6	10.7
08/15/00	17.2	23.8	12.2	13.4	13.8	13.2	13.3	15.1	11.5	13.5	15.2	11.8
08/16/00	17.5	23.8	12.7	13.4	13.8	13.2	13.5	15.2	11.8	14.0	15.7	12.4
08/17/00	17.3	23.3	12.8	13.5	14.0	13.2	13.5	15.2	11.8	13.9	15.4	12.4
08/18/00	16.1	22.3	11.4	13.5	14.0	13.3	12.7	14.6	11.1	12.7	14.3	11.0
08/19/00	15.1	21.3	10.2	13.6	14.0	13.3	12.1	13.8	10.3	11.6	13.2	9.8
08/20/00	14.9	21.6	9.7	13.6	14.0	13.3	11.9	13.7	10.0	11.3	13.0	9.4
08/21/00	15.1	21.6	10.1	13.7	14.1	13.3	12.0	13.8	10.1	11.6	13.3	9.8
08/22/00	15.3	21.3	10.2	13.7	14.1	13.5	12.2	14.0	10.3	11.9	13.6	9.9
08/23/00	15.8	21.8	11.1	13.8	14.1	13.5	12.6	14.5	11.1	12.6	14.3	11.2
08/24/00	15.8	21.8	10.8	13.8	14.3	13.6	12.6	14.3	10.7	12.6	14.4	10.7
08/25/00	16.7	20.9	13.3	13.8	14.1	13.6	13.7	15.1	12.4	14.4	15.8	13.2
08/26/00	17.7	23.1	13.9	13.9	14.1	13.6	14.1	15.7	12.9	15.1	16.6	13.9
08/27/00	17.4	22.8	13.0	13.9	14.3	13.6	13.8	15.4	12.3	14.8	16.3	13.3
08/28/00	16.9	21.6	13.0	13.9	14.3	13.8	13.7	14.8	12.3	14.5	15.5	13.2
08/29/00	15.6	16.9	14.4	14.0	14.3	13.8	13.6	14.0	13.2	14.1	14.9	13.6
08/30/00	14.8	17.7	13.0	14.0	14.3	13.8	13.4	14.0	12.9	13.6	14.3	13.0
08/31/00	14.4	19.0	10.8	14.0	14.3	13.6	12.5	13.4	11.5	12.8	13.6	11.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	11.2	13.8	9.6	14.0	14.3	13.8	11.3	12.4	10.6	11.3	12.9	10.2
09/02/00	11.5	16.6	8.5	14.0	14.1	13.8	11.0	11.5	10.4	10.4	11.2	9.8
09/03/00	12.1	17.9	8.2	14.0	14.3	13.8	11.0	11.7	10.1	10.4	11.3	9.4
09/04/00	11.6	18.2	7.1	14.0	14.3	13.8	10.4	11.4	9.3	9.8	11.2	8.4
09/05/00	11.2	17.7	6.7	14.0	14.3	13.8	10.3	11.8	8.9	9.4	11.0	7.6
09/06/00	11.1	17.7	6.3	14.1	14.4	13.8	10.3	11.8	8.7	9.4	11.0	7.6
09/07/00	11.9	18.2	7.1	14.1	14.3	14.0	10.7	12.1	9.0	9.7	11.5	7.9
09/08/00	12.6	18.2	8.4	14.1	14.3	14.0	11.3	12.6	9.8	10.6	12.1	9.0
09/09/00	12.4	18.4	7.7	14.1	14.3	14.0	11.1	12.4	9.5	10.4	11.9	8.5
09/10/00	12.6	18.4	8.0	14.1	14.4	14.0	11.3	12.8	9.8	10.9	12.6	9.1
09/11/00	12.6	18.2	8.0	14.2	14.4	14.0	11.3	12.6	9.7	10.8	12.4	8.8
09/12/00	12.5	16.1	8.5	14.2	14.4	14.1	11.4	12.4	9.8	10.6	11.8	9.1
09/13/00	14.9	19.6	11.0	14.2	14.4	14.1	12.7	13.8	11.4	12.4	14.3	10.8
09/14/00	14.9	20.0	11.0	14.2	14.6	14.1	12.9	14.1	11.7	13.4	15.0	11.9
09/15/00	14.0	18.8	9.9	14.3	14.6	14.1	12.7	13.8	11.2	13.3	15.0	11.3
09/16/00	13.2	18.0	9.0	14.4	14.6	14.1	12.0	13.2	10.4	12.0	14.1	9.9
09/17/00	13.9	19.0	9.7	14.4	14.6	14.3	12.4	13.7	10.9	12.4	14.1	10.7
09/18/00	14.4	19.2	10.2	14.4	14.7	14.3	12.6	13.7	11.1	12.8	14.4	11.0
09/19/00	14.6	19.2	10.7	14.5	14.7	14.3	12.7	13.8	11.4	13.0	14.3	11.3
09/20/00	15.0	19.8	11.1	14.5	14.7	14.3	13.0	14.1	11.7	13.6	15.2	11.9
09/21/00	14.5	18.8	11.1	14.5	14.9	14.3	13.0	14.0	11.8	13.5	14.7	12.1
09/22/00	11.6	13.9	9.4	14.6	14.9	14.4	11.6	12.9	11.1	11.4	13.6	10.4
09/23/00	10.8	15.0	7.3	14.6	14.7	14.4	10.8	11.5	9.5	9.7	10.7	8.4
09/24/00	10.8	15.3	6.8	14.6	14.9	14.4	10.9	12.0	9.5	10.2	12.1	8.5
09/25/00	11.3	15.6	7.4	14.6	14.7	14.4	11.0	12.0	9.7	10.6	12.1	9.0
09/26/00	11.1	15.2	7.4	14.6	14.9	14.4	10.9	11.8	9.5	10.4	11.6	8.7
09/27/00	11.3	15.3	7.9	14.6	14.9	14.4	11.1	12.1	9.8	10.8	12.2	9.3
09/28/00	11.4	14.9	8.2	14.6	14.9	14.3	11.3	12.1	10.1	11.1	12.4	9.8
09/29/00	11.7	16.1	8.0	14.6	15.1	14.3	11.4	12.3	10.1	11.3	12.9	9.8
09/30/00	11.8	16.0	8.2	14.6	14.9	14.4	11.4	12.4	10.3	11.4	12.7	9.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	11.8	15.6	8.4	14.6	14.9	14.4	11.4	12.3	10.1	11.2	12.4	9.8
10/02/00	11.3	15.2	7.9	14.6	14.9	14.3	11.2	12.1	9.8	10.8	12.6	9.1
10/03/00	10.9	14.5	7.6	14.6	14.9	14.3	11.1	11.8	9.8	10.9	12.4	9.3
10/04/00	10.6	14.1	7.4	14.7	14.9	14.4	10.8	11.7	9.7	10.6	11.8	9.1
10/05/00	10.8	14.5	7.7	14.7	14.9	14.6	10.9	12.0	9.8	10.8	12.2	9.4
10/06/00	10.9	14.2	7.9	14.7	14.9	14.6	10.8	11.8	9.7	10.9	12.1	9.6
10/07/00	11.0	14.2	7.9	14.7	14.9	14.6	10.9	11.8	9.8	11.2	12.4	9.9
10/08/00	10.7	13.9	7.7	14.7	14.9	14.6	10.8	11.8	9.7	11.1	12.2	9.8
10/09/00	9.3	12.1	6.0	14.6	14.9	14.3	10.3	11.4	9.2	10.3	11.3	9.1
10/10/00	4.2	6.0	1.8	14.4	14.6	14.3	7.3	10.0	6.6	7.3	10.2	6.0
10/11/00	4.3	7.0	2.1	14.2	14.4	14.1	7.1	7.3	6.6	5.4	6.0	4.8
10/12/00	5.3	9.1	2.9	14.1	14.1	14.0	7.6	8.0	7.0	5.7	6.2	5.3
10/13/00	5.4	9.7	2.4	14.0	14.1	14.0	7.7	8.4	6.9	6.3	7.6	5.3
10/14/00	5.4	9.7	2.6	13.9	14.0	13.8	7.9	8.9	7.0	7.5	9.0	6.2
10/15/00	5.6	9.9	2.8	13.8	13.8	13.6	7.9	8.9	7.0	7.9	9.0	6.7
10/16/00	5.9	10.2	3.1	13.7	13.8	13.6	8.2	9.2	7.3	8.5	9.8	7.3
10/17/00	6.2	10.4	3.5	13.6	13.8	13.5	8.4	9.3	7.5	8.8	9.8	7.6
10/18/00	6.4	9.4	3.9	13.5	13.6	13.5	8.7	9.3	7.7	8.8	9.8	7.7
10/19/00	6.5	10.5	3.9	13.5	13.6	13.3	8.6	9.3	7.7	8.9	10.1	7.6
10/20/00	6.6	10.4	4.0	13.4	13.5	13.3	8.5	9.2	7.7	9.0	9.8	7.9
10/21/00	5.6	9.1	3.7	13.3	13.5	13.0	8.2	9.0	7.7	8.2	9.4	7.0
10/22/00	4.1	7.9	1.8	13.0	13.0	12.9	7.1	7.8	6.4	6.1	7.1	4.9
10/23/00	4.1	8.0	1.5	12.9	13.0	12.9	6.8	7.7	6.1	6.3	7.3	5.4
10/24/00	4.6	8.5	2.0	12.8	12.9	12.7	7.1	8.0	6.4	7.0	8.1	6.0
10/25/00	4.6	7.3	2.6	12.7	12.7	12.4	7.4	8.0	6.7	7.2	7.7	6.7
10/26/00				12.5	12.6	12.4	6.8	7.2	6.1	6.4	7.1	5.9
10/27/00				12.3	12.4	12.3	6.2	6.9	5.6			
10/28/00				12.2	12.4	12.1	6.5	7.0	5.8			
10/29/00				11.9	12.1	11.8	5.4	7.0	3.8			
10/30/00				11.7	11.8	11.6	4.4	4.9	3.9			
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00				8.6	10.4	7.5	11.5	14.3	9.2			
05/27/00				8.9	10.4	7.9	12.0	14.7	9.8			
05/28/00				8.7	10.3	7.8	11.6	14.3	9.5			
05/29/00				8.6	10.6	7.6	11.4	14.1	9.3			
05/30/00				8.8	12.1	7.6	11.3	13.8	9.2			
05/31/00				8.7	12.3	7.3	10.8	13.7	8.2			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00				8.9	10.9	7.8	11.6	14.4	9.2			
06/02/00				9.0	10.7	7.8	11.7	14.6	9.3			
06/03/00				9.2	10.9	7.9	12.0	15.2	9.6			
06/04/00				8.9	10.4	8.2	11.7	14.1	9.8			
06/05/00				8.8	9.9	7.9	11.1	13.3	9.6			
06/06/00				8.8	10.4	7.9	11.0	13.8	8.9			
06/07/00				8.9	10.4	8.1	11.3	13.8	9.3			
06/08/00				8.2	8.5	7.5	9.6	10.7	8.9			
06/09/00				8.3	9.8	7.3	9.8	12.3	7.6			
06/10/00				9.5	12.6	7.8	11.3	13.8	9.0			
06/11/00				10.6	13.7	7.9	12.1	14.7	9.3			
06/12/00				12.8	15.1	10.9	14.2	16.5	12.1			
06/13/00				14.5	18.1	11.6	16.3	19.0	13.5			
06/14/00				10.4	12.4	9.3	14.7	17.8	11.5			
06/15/00				10.4	11.8	9.6	13.7	17.0	11.5			
06/16/00				10.8	13.5	9.8	14.1	17.6	12.1			
06/17/00				10.5	11.8	9.8	13.9	16.2	12.1			
06/18/00				10.8	13.3	9.6	13.8	17.6	11.6			
06/19/00				10.2	11.6	9.3	13.0	15.5	11.2			
06/20/00				10.5	12.1	9.6	13.4	16.2	11.5			
06/21/00	9.6	10.2	9.2	10.7	12.3	9.8	13.5	16.3	11.3			
06/22/00	9.6	10.2	9.2	10.7	12.3	9.9	13.7	16.2	11.8			
06/23/00	9.7	10.2	9.3	10.7	12.3	9.9	13.4	16.0	11.5			
06/24/00	9.7	10.2	9.2	10.7	12.3	9.6	13.3	15.9	11.3			
06/25/00	9.9	10.4	9.5	10.8	12.3	9.9	13.5	16.2	11.6			
06/26/00	9.9	10.6	9.3	10.8	12.3	9.9	13.5	16.2	11.6			
06/27/00	10.1	10.6	9.6	11.1	12.6	10.1	13.7	16.5	11.8			
06/28/00	10.3	10.9	9.8	11.4	13.0	10.4	14.4	17.1	12.6	11.9	12.9	11.3
06/29/00	10.2	10.6	9.9	11.2	12.3	10.6	13.9	16.2	12.4	12.1	13.1	11.3
06/30/00	10.5	12.0	10.1	11.7	14.4	10.7	14.4	17.6	12.4	12.0	12.9	11.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	10.2	10.6	9.9	11.0	12.1	10.3	13.7	15.5	11.8	11.8	12.7	11.3
07/02/00	10.2	10.7	9.8	10.8	12.3	9.9	12.7	15.2	10.9	11.8	12.9	11.2
07/03/00	10.3	10.7	9.9	10.9	12.1	10.4	12.7	14.7	11.3	11.9	12.9	11.3
07/04/00	11.2	13.2	9.8	12.3	15.1	9.9	13.1	15.9	10.6	11.7	12.7	11.2
07/05/00	12.2	13.8	10.9	14.4	16.5	12.3	15.3	17.3	13.0	11.8	12.7	11.3
07/06/00	12.9	14.3	11.6	15.4	17.8	13.3	16.5	18.2	14.3	11.9	12.9	11.3
07/07/00	13.1	14.4	12.1	16.0	18.2	14.0	17.1	18.7	14.9	12.0	12.9	11.5
07/08/00	13.4	14.7	12.4	16.4	18.6	14.1	16.9	18.6	14.1	12.1	13.1	11.5
07/09/00	13.7	15.1	12.7	16.8	19.1	14.4	17.1	18.9	14.0	12.0	13.2	11.7
07/10/00	12.1	14.1	10.9	13.8	17.0	11.5	16.0	18.2	13.3	12.1	12.6	11.7
07/11/00	12.6	14.4	11.3	14.5	17.4	11.6	14.7	17.3	12.6	12.6	13.7	12.1
07/12/00	13.9	15.4	12.6	17.1	19.4	14.9	16.5	18.9	14.0	12.2	12.7	11.7
07/13/00	13.3	14.9	12.3	17.2	19.4	14.9	17.2	19.0	14.7	12.2	12.4	12.0
07/14/00	14.2	15.4	13.2	17.8	20.0	15.5	17.3	19.5	14.3	12.4	13.1	12.0
07/15/00	13.4	15.1	11.6	15.6	18.1	13.5	17.4	20.0	15.2	12.6	13.2	12.3
07/16/00	12.3	13.3	11.3	13.9	16.6	12.1	16.0	19.5	14.1	12.8	13.4	12.4
07/17/00	12.7	14.4	11.5	14.7	17.4	12.3	15.4	17.9	12.9	12.7	13.5	12.3
07/18/00	12.8	14.4	11.8	15.1	18.6	13.3	16.8	20.5	14.0	12.7	13.7	12.0
07/19/00	12.2	14.0	11.6	13.8	17.4	12.3	15.9	19.9	13.3	12.9	13.8	12.3
07/20/00	12.1	13.8	11.6	13.5	16.8	12.3	15.4	19.4	12.9	13.0	13.8	12.6
07/21/00	13.1	14.9	11.8	15.2	18.1	12.7	16.8	19.0	14.3	12.9	14.0	12.3
07/22/00	14.2	15.5	13.0	17.2	19.4	15.1	18.4	20.0	16.5	12.9	14.0	12.3
07/23/00	14.6	15.9	13.5	18.0	19.9	15.9	18.8	20.3	16.6	12.9	14.0	12.1
07/24/00	13.4	15.1	11.8	15.8	19.5	12.6	18.4	21.7	15.1	13.1	14.1	12.4
07/25/00	12.4	13.3	12.1	13.8	16.2	12.6	15.8	19.4	13.8	13.1	14.1	12.6
07/26/00	13.6	15.5	12.4	15.7	18.2	13.7	16.9	18.9	14.7	13.1	14.1	12.6
07/27/00	13.3	15.5	12.1	15.6	19.2	13.0	17.9	21.0	15.9	13.1	14.1	12.4
07/28/00	12.3	12.9	12.0	13.5	15.5	12.7	15.9	19.2	14.1	13.2	14.3	12.4
07/29/00	12.7	14.1	12.3	14.0	15.9	12.9	16.2	18.7	14.1	13.4	14.4	12.7
07/30/00	13.9	15.5	12.7	16.0	18.4	13.8	17.5	19.7	15.2	13.5	14.4	12.9
07/31/00	15.0	16.6	13.7	18.2	20.3	16.5	19.1	21.0	16.6	13.6	14.6	12.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	13.7	15.9	12.7	16.8	20.5	13.5	20.0	22.8	15.9	13.8	14.9	13.2
08/02/00	13.2	14.1	12.9	14.5	16.8	13.7	16.8	19.4	15.5	13.7	14.8	13.2
08/03/00	13.3	14.9	12.7	14.7	17.8	13.5	17.4	20.7	15.9	13.9	14.9	13.2
08/04/00	13.4	15.7	12.9	15.1	18.6	13.5	17.4	20.7	15.2	14.0	15.1	13.5
08/05/00	13.1	14.0	12.7	14.5	16.5	13.5	17.5	20.2	15.5	14.1	15.2	13.4
08/06/00	13.3	15.4	12.9	14.8	18.1	13.7	16.9	20.0	14.7	14.1	15.2	13.4
08/07/00	14.0	15.5	12.9	15.6	17.8	13.8	17.3	19.2	15.1	14.0	15.4	13.4
08/08/00	14.9	16.3	14.0	17.2	19.1	15.4	18.1	19.4	16.0	14.0	15.4	13.4
08/09/00	14.2	16.0	12.9	16.8	19.5	14.0	18.3	20.0	16.8	13.9	15.6	13.1
08/10/00	13.3	15.4	12.7	14.8	17.8	13.3	17.2	19.2	15.1	13.9	15.2	13.2
08/11/00	13.1	14.7	12.4	14.6	17.4	13.0	16.9	19.4	14.9	13.8	14.9	13.1
08/12/00	13.1	14.6	12.4	14.3	17.3	13.0	16.6	19.5	14.7	13.9	15.1	13.2
08/13/00	13.6	15.2	12.6	15.0	17.1	13.0	16.0	17.9	14.0	13.9	14.9	13.4
08/14/00	13.6	14.9	13.2	15.2	17.9	13.8	17.0	20.0	15.2	13.9	14.9	13.4
08/15/00	13.4	14.6	13.0	14.5	17.1	13.5	16.3	19.5	14.6	14.1	15.1	13.5
08/16/00	13.5	15.2	13.0	14.6	17.6	13.7	16.1	19.4	14.3	14.2	15.1	13.7
08/17/00	13.6	15.4	13.2	14.8	17.6	13.7	16.1	18.9	14.1	14.2	15.2	13.8
08/18/00	13.8	15.2	12.7	15.1	17.0	13.3	16.3	17.8	14.3	14.1	15.1	13.5
08/19/00	14.2	15.5	13.2	15.6	17.1	14.0	15.8	17.1	13.5	14.0	14.9	13.5
08/20/00	14.1	15.4	13.0	15.7	17.3	14.1	15.6	16.8	13.5	14.0	14.9	13.5
08/21/00	14.3	15.7	13.3	16.0	17.4	14.3	15.8	17.3	13.5	14.1	14.9	13.7
08/22/00	14.4	15.9	13.5	16.4	18.1	14.7	16.1	17.4	13.8	14.1	15.2	13.5
08/23/00	13.9	14.6	13.3	15.4	17.4	13.7	16.1	19.0	14.3	14.3	15.4	13.7
08/24/00	13.9	15.4	12.9	14.9	17.0	13.2	15.4	17.3	13.3	14.3	15.4	13.7
08/25/00	15.2	16.6	14.4	17.0	18.6	15.5	17.0	18.4	15.2	14.6	15.7	14.0
08/26/00	15.9	17.1	15.1	18.1	19.5	16.8	18.1	19.4	16.3	14.7	15.9	14.3
08/27/00	16.0	17.1	15.2	18.4	19.5	17.0	18.1	19.4	16.0	14.7	15.7	14.1
08/28/00	16.0	16.8	15.2	18.4	19.4	17.1	18.1	19.2	16.5	14.7	15.7	14.1
08/29/00	15.7	16.0	15.4	17.9	18.4	17.3	17.1	18.2	16.5	14.6	14.9	14.3
08/30/00	15.3	15.9	14.9	17.3	17.9	16.8	16.6	17.4	15.9	14.6	15.2	14.3
08/31/00	14.9	15.5	14.4	16.5	17.1	15.7	15.9	16.8	14.9	14.5	15.2	14.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	14.0	14.7	13.3	15.1	16.5	14.1	14.9	15.9	14.4	14.4	14.6	14.1
09/02/00	13.5	14.0	13.0	F	F	F	14.4	15.1	13.7	14.2	14.8	14.0
09/03/00	13.4	14.0	12.9	F	F	F	14.2	14.9	13.3	14.2	14.8	14.0
09/04/00	13.2	13.8	12.6	F	F	F	13.7	14.4	12.6	14.2	14.9	13.8
09/05/00	13.1	14.1	12.1	F	F	F	13.6	14.9	12.1	14.3	15.2	13.7
09/06/00	13.0	14.1	12.1	F	F	F	13.5	14.9	11.8	14.3	15.4	13.8
09/07/00	13.3	14.4	12.4	F	F	F	13.8	15.4	12.1	14.3	15.6	13.8
09/08/00	13.7	14.9	12.9	F	F	F	14.3	15.7	12.7	14.5	15.7	13.8
09/09/00	13.6	14.7	12.7	F	F	F	14.6	15.5	13.3	14.5	15.6	13.8
09/10/00	13.8	14.7	13.0	F	F	F	14.8	15.9	13.3	14.7	15.9	14.0
09/11/00	13.8	14.7	13.0	F	F	F	15.1	16.3	13.5	14.6	15.9	14.0
09/12/00	13.9	14.6	13.2	F	F	F	15.1	15.9	14.0	14.6	15.6	14.1
09/13/00	14.3	15.4	13.7	F	F	F	15.8	17.1	14.7	15.0	16.0	14.4
09/14/00	14.8	15.9	14.1	F	F	F	16.7	17.9	15.5	15.2	16.3	14.6
09/15/00	15.1	16.0	14.4	F	F	F	16.9	17.8	15.9	15.2	16.5	14.6
09/16/00	14.7	15.9	14.1	F	F	F	16.4	17.4	15.1	15.1	16.2	14.3
09/17/00	14.4	15.9	14.0	F	F	F	16.0	17.8	14.4	15.3	16.5	14.6
09/18/00	14.4	15.7	13.8	F	F	F	16.2	17.8	14.7	15.6	16.5	15.1
09/19/00	14.3	15.2	13.8	F	F	F	16.2	18.1	14.7	15.5	16.5	14.8
09/20/00	14.5	15.5	14.0	F	F	F	16.5	18.4	15.1	15.7	16.7	14.9
09/21/00	14.6	15.4	14.0	F	F	F	16.3	17.3	15.2	15.5	16.3	14.9
09/22/00	14.1	14.7	13.5	F	F	F	15.1	16.3	14.4	15.2	15.6	14.6
09/23/00	13.1	13.5	12.6	F	F	F	13.8	14.4	12.6	14.9	15.9	14.3
09/24/00	13.3	14.3	12.6	F	F	F	13.6	14.7	12.1	15.7	16.5	15.4
09/25/00	13.6	14.4	13.0	F	F	F	13.7	14.7	12.3	16.3	17.0	15.7
09/26/00	13.6	14.4	13.0	F	F	F	13.5	14.6	12.3	16.6	17.1	16.2
09/27/00	13.7	14.7	13.0	13.6	14.7	12.7	13.7	14.9	12.6	16.6	17.6	15.6
09/28/00	13.7	14.6	13.0	13.7	14.9	12.9	13.8	14.9	12.7	16.9	17.6	16.2
09/29/00	13.9	14.7	13.3	13.6	14.9	12.7	13.8	14.7	12.6	16.9	17.8	16.0
09/30/00	14.0	14.9	13.3	13.9	15.2	13.0	13.9	15.1	12.6	17.2	18.1	16.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	14.0	14.9	13.3	14.0	15.2	13.2	13.8	14.9	12.7	17.1	17.8	16.5
10/02/00	13.9	14.6	13.2	13.9	15.1	13.0	13.8	14.9	12.6	16.7	17.5	16.2
10/03/00	13.9	14.6	13.3	13.7	14.9	12.9	13.9	14.9	12.7	16.4	17.1	15.9
10/04/00	13.8	14.4	13.2	13.5	14.6	12.7	13.6	14.4	12.4	16.1	17.0	15.7
10/05/00	13.8	14.6	13.2	13.5	14.7	12.7	13.5	14.6	12.3	16.3	17.1	15.9
10/06/00	13.9	14.6	13.3	13.6	14.7	12.9	13.6	14.6	12.4	16.1	17.0	15.2
10/07/00	13.9	14.6	13.3	13.8	14.9	13.0	13.8	14.7	12.6	15.7	17.0	14.9
10/08/00	13.9	14.6	13.3	13.6	14.6	12.9	13.7	14.6	12.6	16.2	17.3	15.7
10/09/00	13.7	14.1	13.3	13.2	14.0	12.6	13.2	14.0	12.1	16.2	16.7	15.7
10/10/00	12.1	13.5	11.3	11.4	13.2	10.6	11.5	13.2	10.7	15.1	16.0	14.1
10/11/00	11.0	11.5	10.6	9.7	10.6	9.2	9.9	10.7	9.5	15.2	15.6	14.8
10/12/00	10.6	10.9	10.2	9.3	9.8	8.9	9.7	9.9	9.2	15.3	15.6	14.9
10/13/00	10.3	10.6	10.1	8.8	9.3	8.2	9.6	10.4	8.6	15.4	16.2	15.1
10/14/00	10.3	10.7	10.2	9.1	9.5	8.7	10.1	11.2	9.0	15.3	15.9	14.9
10/15/00	10.6	11.3	10.4	9.4	9.8	9.2	10.2	11.2	9.2	15.2	15.6	14.6
10/16/00	11.7	12.4	11.0	10.2	11.3	9.5	10.7	11.5	9.9	15.3	16.0	15.1
10/17/00	12.1	12.6	11.5	10.6	11.6	9.9	10.9	11.6	10.3	15.2	15.9	14.6
10/18/00	12.2	12.7	11.5	11.1	12.1	10.3	11.2	12.1	10.4	15.3	15.7	14.9
10/19/00	12.1	12.7	11.5	11.2	12.1	10.6	11.2	12.0	10.4	15.1	15.7	14.8
10/20/00	12.0	12.6	11.5	11.1	11.8	10.4	11.2	12.0	10.4	15.0	15.7	14.6
10/21/00	11.6	12.1	10.7	10.8	11.3	10.1	11.0	11.6	10.4	14.9	15.2	14.4
10/22/00	10.7	11.2	10.2	9.3	10.1	8.7	9.7	10.4	9.0	14.5	14.9	14.1
10/23/00	10.6	11.3	10.2	8.9	9.8	8.4	9.2	9.8	8.6	14.3	14.9	14.0
10/24/00	10.4	10.7	10.1	8.8	9.3	8.5	9.0	9.8	8.2	14.3	15.1	14.1
10/25/00	10.3	10.6	9.9	9.0	9.3	8.7	9.4	9.9	8.7	14.2	14.8	14.0
10/26/00	10.1	10.4	9.8	8.9	9.2	8.2	9.5	9.8	9.2	14.1	14.3	13.8
10/27/00	9.7	9.9	9.3									
10/28/00	9.5	9.8	9.2									
10/29/00	9.3	9.6	8.7									
10/30/00	8.6	8.9	8.2									
10/31/00	8.3	8.5	8.1									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00												
06/14/00				8.0	8.8	7.1						
06/15/00				8.3	9.7	7.2						
06/16/00				8.4	10.5	7.4						
06/17/00				8.6	10.8	7.8						
06/18/00				8.7	10.6	7.7						
06/19/00				8.9	9.7	7.8						
06/20/00				8.8	10.5	8.1	8.10	8.52	7.91	11.03	12.06	10.20
06/21/00	18.9	21.4	16.7	9.2	10.8	8.4	8.37	8.98	7.91	11.24	12.52	10.36
06/22/00	19.1	21.4	17.2	11.2	15.8	8.9	8.62	8.98	8.21	11.29	12.52	10.36
06/23/00	18.4	20.6	16.5	12.2	14.8	11.2	8.62	9.29	7.91	11.52	12.83	10.51
06/24/00	17.9	19.9	15.8	13.3	15.1	12.0	8.82	9.75	8.21	11.61	12.68	10.51
06/25/00	18.5	20.9	16.4	12.8	14.3	11.7	8.90	9.91	8.37	11.83	13.61	10.67
06/26/00	18.6	21.2	16.5	12.5	13.6	11.5	8.77	9.13	8.37	11.84	12.68	11.13
06/27/00	18.7	21.1	16.5	13.3	14.6	12.2	8.95	9.29	8.67	12.00	12.83	10.82
06/28/00	19.4	21.9	17.3	12.6	12.9	12.2	9.00	9.59	8.67	12.11	12.99	11.13
06/29/00	19.4	21.9	17.3	12.8	13.3	12.2	9.33	9.75	8.82	12.22	13.45	11.13
06/30/00	19.3	21.6	17.7	13.0	13.9	12.0	9.50	10.38	8.98	12.39	13.61	11.28

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	17.9	19.9	16.1	13.5	15.0	12.0	9.63	10.38	8.98	12.63	14.69	11.44
07/02/00	17.2	19.6	15.1	14.2	16.1	12.9	9.65	10.38	8.82	12.62	14.07	11.44
07/03/00	17.1	19.3	15.4	13.6	16.2	12.6	9.80	10.22	9.13	12.80	14.22	11.75
07/04/00	16.4	18.6	14.3	13.7	15.0	12.3	9.66	10.22	9.13	13.00	14.53	11.91
07/05/00	16.4	18.8	14.3	14.4	15.4	13.6	9.88	10.22	9.29	13.06	14.22	11.91
07/06/00	16.6	19.1	14.5	15.1	16.2	13.4	10.04	10.53	9.59	13.20	14.53	12.06
07/07/00	17.0	19.4	14.8	15.4	16.2	13.3	10.00	10.22	9.59	13.45	14.69	12.21
07/08/00	17.0	19.4	14.8	15.8	16.4	14.0	9.87	10.07	9.59	13.54	15.01	12.06
07/09/00	15.1	19.6	12.2	14.9	15.9	13.7	10.16	10.53	9.91	13.75	15.17	12.21
07/10/00	12.7	13.4	12.2	15.4	15.8	14.6	10.35	10.69	9.91	13.79	15.48	12.21
07/11/00	15.2	18.3	12.5	15.4	15.6	14.2	10.55	10.84	10.07	13.85	15.17	12.68
07/12/00	14.1	16.5	12.3	15.8	16.4	15.4	10.64	10.99	10.22	13.75	15.01	12.37
07/13/00	13.3	14.8	11.9	16.4	16.7	16.2	10.68	11.15	10.38	13.83	15.48	12.37
07/14/00	15.1	17.8	12.5	16.3	16.9	15.1	10.93	11.77	10.53	13.81	15.32	12.52
07/15/00	16.6	18.5	14.7	16.3	16.4	15.6	10.83	11.31	10.38	13.83	15.32	12.68
07/16/00	17.0	18.9	15.8	16.3	16.5	16.1	11.08	11.92	10.53	13.77	15.01	12.68
07/17/00	16.7	18.6	15.0	16.4	17.2	16.1	11.23	11.77	10.38	13.99	15.48	12.68
07/18/00	16.7	18.8	14.7	16.7	17.3	13.7	F	F	F	14.31	15.80	12.83
07/19/00	16.8	18.8	14.7	14.7	15.8	13.7	10.55	11.15	10.22	14.39	15.80	12.83
07/20/00	17.0	19.1	15.0	15.5	16.7	13.4	10.74	11.15	10.22	14.53	15.96	13.45
07/21/00	17.4	19.4	15.4	16.6	17.5	13.7	10.94	11.46	10.38	14.63	16.27	13.14
07/22/00	17.6	19.6	15.8	16.3	17.8	13.9	10.99	11.46	10.69	14.58	15.64	13.29
07/23/00	17.3	19.3	15.3	16.0	16.7	15.3	10.92	11.31	10.53	14.70	16.27	13.29
07/24/00	17.5	19.4	15.6	16.4	17.3	15.0	10.92	11.31	10.69	14.64	16.11	13.45
07/25/00	17.5	19.6	15.8	16.8	17.5	15.3	11.28	11.77	10.84	14.69	15.80	13.61
07/26/00	17.3	19.3	15.6	17.4	17.5	17.2	11.54	11.77	11.15	14.78	15.80	13.76
07/27/00	17.2	19.3	15.1	17.8	18.8	17.3	11.41	11.77	10.99	14.72	15.96	13.61
07/28/00	17.1	19.3	15.0	18.4	19.0	17.8	11.41	11.77	11.15	15.05	17.06	13.76
07/29/00	17.5	19.6	15.4	18.7	19.1	18.5	11.46	11.77	11.15	14.96	16.74	13.61
07/30/00	18.4	20.4	16.5	18.9	19.6	18.5	11.63	11.92	11.31	14.78	16.27	13.61
07/31/00	18.8	20.7	17.2	18.6	19.1	17.8	11.71	12.08	11.46	14.79	15.64	13.91

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	19.5	21.2	18.1	18.5	19.1	18.1	11.88	12.08	11.61	14.89	15.64	14.07
08/02/00	19.0	20.4	17.8	18.8	19.1	18.6	11.97	13.32	11.46	15.13	15.80	14.85
08/03/00	18.8	20.6	17.5	18.8	19.1	18.6	11.71	12.08	11.46	14.84	15.32	14.22
08/04/00	19.2	21.2	17.5	18.6	19.0	18.3	12.19	12.39	11.77	15.24	16.11	14.07
08/05/00	19.1	21.1	17.3	18.7	19.0	18.3	12.42	12.7	12.08	15.29	16.58	14.07
08/06/00	18.8	20.6	17.2	18.4	18.8	18.1	12.52	13.01	12.23	15.22	16.43	14.22
08/07/00	18.5	20.6	16.9	18.4	19.0	18.0	12.56	12.86	12.23	15.28	16.58	14.22
08/08/00	18.0	19.9	16.4	18.4	19.0	17.8	12.18	12.54	11.61	15.33	16.43	14.22
08/09/00	17.7	19.8	15.8	18.3	18.6	18.0	11.99	12.39	11.46	15.41	16.74	14.22
08/10/00	17.2	19.3	15.3	18.5	18.6	18.3	11.77	12.08	11.61	15.57	16.74	14.53
08/11/00	17.0	19.1	14.8	18.6	19.3	18.3	11.80	12.08	11.46	15.76	17.54	14.22
08/12/00	17.3	19.4	15.1	18.3	18.8	17.8	11.95	12.23	11.61	15.85	17.38	14.38
08/13/00	17.2	19.3	15.3	18.6	19.3	18.1	11.93	12.23	11.77	15.87	17.38	14.53
08/14/00	17.0	19.1	15.0	18.2	18.5	17.8	11.94	12.39	11.61	15.91	17.22	14.53
08/15/00	17.5	19.6	15.6	18.6	19.5	18.1	11.97	12.23	11.61	15.98	17.22	14.38
08/16/00	17.7	19.9	15.9	18.4	18.8	18.0	12.07	12.39	11.77	16.02	17.38	14.53
08/17/00	17.7	19.8	15.9	18.4	19.0	18.0	12.20	12.39	11.92	16.00	17.06	14.69
08/18/00	16.5	18.6	14.5	18.4	19.0	18.0	12.23	12.39	12.08	16.09	17.38	14.69
08/19/00	16.1	18.3	14.2	18.3	18.5	18.0	12.31	12.54	12.08	15.95	17.38	14.69
08/20/00	16.1	18.3	14.0	18.3	19.1	17.8	12.35	12.86	11.92	15.95	17.06	14.69
08/21/00	16.2	18.5	14.2	18.1	19.0	17.5	12.84	13.32	11.77	15.96	16.91	14.53
08/22/00	16.5	18.8	14.5	17.9	18.5	17.3	12.45	12.7	11.77	16.01	16.74	14.69
08/23/00	16.8	18.9	15.0	18.0	18.3	17.7	12.33	12.86	12.08	15.94	16.74	14.53
08/24/00	16.8	19.1	14.8	18.2	18.6	17.8	12.39	13.01	12.08	16.24	16.74	15.64
08/25/00	17.8	19.8	16.2	18.3	18.8	18.1	12.32	12.7	11.77	16.20	16.58	15.17
08/26/00	18.8	20.6	17.5	18.2	18.6	18.0	13.02	13.78	12.08	16.17	16.91	14.85
08/27/00	18.4	20.2	16.7	18.3	18.8	17.8	13.26	13.62	13.01	16.07	16.91	15.01
08/28/00	18.1	19.8	16.7	18.1	18.6	17.8	13.30	13.47	13.01	16.36	16.91	15.80
08/29/00	17.6	18.0	16.9	17.9	18.3	17.7	13.36	13.62	13.01	16.12	16.91	15.32
08/30/00	17.1	18.3	16.4	17.8	18.1	17.5	12.93	13.01	12.7	15.87	16.43	15.48
08/31/00	16.7	18.1	15.6	17.7	18.5	17.3	12.15	12.7	11.46	15.96	16.74	15.32

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	15.9	16.5	15.1	17.1	17.3	16.9	12.14	12.7	11.77	16.26	16.74	15.48
09/02/00	15.8	17.3	14.7	16.9	17.2	16.7	12.04	12.7	11.15	16.14	16.43	15.48
09/03/00	15.8	17.2	14.8	16.9	17.5	16.5	11.12	13.01	9.91	16.09	16.27	15.80
09/04/00	14.9	16.5	13.7	16.8	17.0	16.5	F	F	F	15.93	16.11	15.80
09/05/00	14.6	16.5	13.0	16.8	17.3	16.4	F	F	F	15.72	15.80	15.48
09/06/00	14.6	16.7	12.8	16.6	17.0	16.2	12.12	13.16	11.46	15.47	15.64	15.32
09/07/00	14.8	16.9	13.0	16.5	16.7	16.2	12.45	14.24	11.46	15.38	15.64	15.32
09/08/00	15.2	17.2	13.4	16.6	17.5	16.2	13.78	14.24	13.47	15.38	15.48	15.17
09/09/00	15.2	17.2	13.6	16.4	17.2	15.9	13.79	14.08	13.47	15.29	15.48	15.17
09/10/00	15.5	17.5	13.7	16.2	17.2	15.6	13.85	14.08	13.62	15.23	15.32	15.17
09/11/00	15.6	17.7	13.9	16.2	17.5	15.4	13.92	14.24	13.78	15.19	15.32	15.01
09/12/00	15.2	16.4	13.7	16.1	17.3	15.3	13.96	14.24	13.78	15.21	15.32	15.01
09/13/00	16.2	18.0	14.7				14.11	15.5	13.47	15.25	15.32	15.17
09/14/00	17.0	18.9	15.3				14.25	14.71	13.93	15.34	15.48	15.17
09/15/00	17.3	19.3	15.8				14.26	14.55	13.93	15.40	15.48	15.17
09/16/00	16.6	18.6	14.7				14.29	14.71	14.08	15.40	15.64	15.17
09/17/00	16.6	18.8	14.7				14.26	14.55	14.08	15.37	15.48	15.32
09/18/00	16.9	18.8	15.1				13.96	14.39	13.62	15.43	15.64	15.32
09/19/00	17.0	18.8	15.3				14.31	14.71	14.08	15.43	15.64	15.32
09/20/00	17.3	19.1	15.8				14.68	14.87	14.55	15.49	15.64	15.32
09/21/00	17.2	18.8	15.9				15.12	15.34	14.87	15.55	15.64	15.32
09/22/00	16.0	16.9	15.1				15.29	15.97	14.87	15.54	15.64	15.32
09/23/00							F	F	F	15.39	15.64	15.32
09/24/00							F	F	F	15.22	15.64	15.17
09/25/00							F	F	F	15.17	15.17	15.01
09/26/00							F	F	F	15.17	15.48	15.01
09/27/00				15.5	16.1	15.1	F	F	F	15.12	15.32	15.01
09/28/00				15.6	16.2	15.3	F	F	F	15.00	15.01	14.85
09/29/00				15.5	16.1	15.1	F	F	F	14.98	15.17	14.85
09/30/00				15.7	16.1	15.4	F	F	F	15.01	15.17	14.85

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00				15.4	15.9	15.1	F	F	F	14.99	15.01	14.85
10/02/00				15.5	15.9	15.3	F	F	F	14.91	15.01	14.85
10/03/00				15.4	15.8	15.1	F	F	F	14.86	15.01	14.85
10/04/00				15.1	15.6	14.8	F	F	F	14.84	15.17	14.69
10/05/00				15.0	15.3	14.8	F	F	F	14.90	15.32	14.69
10/06/00				14.9	15.4	14.6	F	F	F	14.83	15.17	14.69
10/07/00				15.0	15.9	14.6	F	F	F	14.81	15.17	14.69
10/08/00				15.0	15.3	14.6	F	F	F	14.80	15.17	14.53
10/09/00				14.7	15.0	14.3	F	F	F	14.69	14.85	14.53
10/10/00				14.1	14.3	13.9	F	F	F	14.31	14.53	14.22
10/11/00				13.7	14.0	13.6	F	F	F	14.07	14.22	13.91
10/12/00				13.5	13.9	13.3	F	F	F	13.91	14.07	13.91
10/13/00				13.2	13.6	12.9	F	F	F	13.81	13.91	13.76
10/14/00				12.9	13.4	12.8	F	F	F	13.73	13.91	13.61
10/15/00				12.8	13.4	12.5	F	F	F	13.59	13.91	13.45
10/16/00				12.6	13.4	12.3	F	F	F	13.54	13.76	13.29
10/17/00				12.6	13.4	12.3	F	F	F	13.42	13.76	13.29
10/18/00				12.5	12.9	12.2	F	F	F	13.35	13.45	13.29
10/19/00				12.4	12.9	12.0	F	F	F	13.32	13.61	13.14
10/20/00				12.2	12.5	12.0	F	F	F	13.24	13.45	13.14
10/21/00				12.1	12.3	11.9	F	F	F	13.12	13.29	12.83
10/22/00				11.8	12.2	11.7	F	F	F	12.83	12.99	12.68
10/23/00				11.7	12.3	11.5	F	F	F	12.74	12.99	12.52
10/24/00				11.5	12.0	11.2	F	F	F	12.64	12.83	12.52
10/25/00							F	F	F	12.45	12.68	12.37
10/26/00							F	F	F	12.29	12.37	12.06
10/27/00							F	F	F	12.12	12.21	12.06
10/28/00							F	F	F	12.03	12.21	11.91
10/29/00							F	F	F	11.70	11.91	11.44
10/30/00							F	F	F	11.46	11.59	11.44
10/31/00							F	F	F			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek PH1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00	6.67	7.15	6.37									
05/27/00	6.73	7.15	6.53									
05/28/00	6.73	6.99	6.53									
05/29/00	6.86	7.31	6.68									
05/30/00	6.99	7.46	6.68									
05/31/00	6.96	7.31	6.68									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek PH1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00	7.04	7.46	6.84									
06/02/00	7.09	7.61	6.84									
06/03/00	7.16	7.61	6.99									
06/04/00	7.28	7.61	7.15									
06/05/00	7.34	7.77	7.15									
06/06/00	7.40	7.77	7.15									
06/07/00	7.49	7.77	7.31									
06/08/00	7.59	8.07	7.15									
06/09/00	7.56	7.92	7.31									
06/10/00	7.65	8.07	7.31									
06/11/00	7.75	8.07	7.46									
06/12/00	7.69	8.23	7.46									
06/13/00	7.91	8.38	7.61									
06/14/00	8.04	8.53	7.77									
06/15/00	8.14	8.53	7.92									
06/16/00	8.23	8.69	7.92									
06/17/00	8.29	8.84	8.07									
06/18/00	8.38	8.99	8.07									
06/19/00	8.45	9.15	8.23									
06/20/00	8.51	9.15	8.38	H	H	H				H	H	H
06/21/00	8.70	9.15	8.53	H	H	H				H	H	H
06/22/00	8.75	9.30	8.53	H	H	H				H	H	H
06/23/00	8.85	9.46	8.53	H	H	H				H	H	H
06/24/00	8.96	9.61	8.69	H	H	H				H	H	H
06/25/00	9.09	9.77	8.84	H	H	H				H	H	H
06/26/00	9.07	9.61	8.84	H	H	H				H	H	H
06/27/00	9.21	9.92	8.99	H	H	H				H	H	H
06/28/00	9.29	9.92	8.99	H	H	H	11.21	11.46	10.99	H	H	H
06/29/00	9.43	10.08	9.15	H	H	H	11.29	11.46	11.15	H	H	H
06/30/00	9.52	9.92	9.30	H	H	H	11.29	11.77	11.15	H	H	H

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek PH1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	9.66	10.23	9.30	H	H	H	11.27	11.46	10.99	H	H	H
07/02/00	9.78	10.23	9.46	H	H	H	11.34	11.46	11.15	H	H	H
07/03/00	9.88	10.39	9.61	H	H	H	11.42	11.61	11.30	H	H	H
07/04/00	9.92	10.23	9.77	H	H	H	11.34	11.46	11.15	H	H	H
07/05/00	10.05	10.39	9.77	H	H	H	11.44	11.77	11.30	H	H	H
07/06/00	10.15	10.54	9.92	H	H	H	11.48	11.61	11.46	H	H	H
07/07/00	10.20	10.70	9.92	H	H	H	11.51	11.61	11.46	H	H	H
07/08/00	10.37	10.86	9.92	H	H	H	11.62	11.92	11.46	H	H	H
07/09/00	10.46	10.86	10.08	H	H	H	11.74	12.08	11.61	H	H	H
07/10/00	10.57	10.86	10.23	H	H	H	11.96	12.23	11.46	H	H	H
07/11/00	10.65	11.16	10.39	H	H	H	12.10	12.39	11.77	H	H	H
07/12/00	10.81	11.32	10.23	H	H	H	12.10	12.54	11.77	H	H	H
07/13/00	10.74	11.16	10.54	H	H	H	11.95	12.23	11.61	12.69	12.87	12.56
07/14/00	10.77	11.16	10.54	H	H	H	11.84	12.08	11.61	12.75	12.87	12.56
07/15/00	10.92	11.32	10.54	H	H	H	12.11	12.39	11.92	12.80	13.02	12.71
07/16/00	11.08	11.47	10.70	H	H	H	12.24	12.39	11.92	12.85	13.02	12.71
07/17/00	11.09	11.47	10.70	H	H	H	12.11	12.39	11.77	12.80	13.02	12.71
07/18/00	11.12	11.47	10.70	H	H	H	12.23	12.39	11.92	12.87	13.02	12.71
07/19/00	11.25	11.63	10.86	11.33	11.52	11.06	12.42	12.70	12.23	12.90	13.02	12.71
07/20/00	11.32	11.78	11.01	11.40	11.68	11.22	12.49	12.70	12.23	12.99	13.02	12.87
07/21/00	11.14	11.47	11.01	11.30	11.52	11.06	12.31	12.39	12.08	13.04	13.18	13.02
07/22/00	11.23	11.63	11.01	11.33	11.68	11.06	12.34	12.39	12.23	13.06	13.18	12.87
07/23/00	11.27	11.78	11.16	11.40	11.68	11.22	12.38	12.54	12.23	13.14	13.33	13.02
07/24/00	11.39	11.94	11.16	11.48	11.83	11.22	12.50	12.70	12.23	13.21	13.33	13.02
07/25/00	11.62	13.33	11.16	11.52	11.83	11.22	12.58	12.86	12.39	13.28	13.79	13.18
07/26/00	11.45	11.94	11.32	11.59	11.83	11.37	12.57	12.70	12.54	13.31	13.48	13.18
07/27/00	11.54	11.94	11.32	11.63	11.99	11.37	12.63	12.86	12.39	13.37	13.48	13.33
07/28/00	11.63	12.09	11.47	11.73	12.14	11.52	12.70	12.86	12.54	13.41	13.48	13.33
07/29/00	11.70	12.09	11.32	11.84	12.14	11.52	12.77	12.86	12.70	13.45	13.64	13.33
07/30/00	11.86	12.24	11.63	12.03	12.29	11.83	12.83	13.01	12.70	13.45	13.64	13.33
07/31/00	11.88	12.24	11.47	12.05	12.29	11.83	12.86	13.01	12.70	13.50	13.79	13.33

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek PH1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	11.95	12.24	11.78	12.09	12.29	11.83	12.98	13.32	12.86	13.59	13.79	13.48
08/02/00	11.96	12.24	11.78	12.09	12.29	11.83	13.02	13.32	12.86	13.68	13.79	13.64
08/03/00	12.04	12.56	11.78	12.20	12.45	11.99	13.06	13.47	12.86	13.74	13.94	13.64
08/04/00	12.13	12.56	11.63	12.30	12.61	11.99	13.23	13.32	13.17	13.81	13.94	13.64
08/05/00	12.18	12.40	11.94	12.35	12.61	12.14	13.28	13.47	13.17	13.85	13.94	13.64
08/06/00	12.32	12.87	11.94	12.47	12.76	12.29	13.29	13.47	13.17	13.87	13.94	13.79
08/07/00	12.31	12.71	12.09	12.45	12.76	12.14	13.30	13.47	13.17	13.90	14.10	13.79
08/08/00	12.38	12.87	12.09	12.50	12.76	12.14	13.28	13.32	13.17	14.00	14.73	13.79
08/09/00	12.42	12.87	12.09	12.51	12.92	12.14	13.28	13.47	13.01	14.07	14.26	13.94
08/10/00	12.55	13.02	12.24	12.63	12.92	12.29	13.31	13.47	13.17	14.13	14.41	13.94
08/11/00	12.60	13.02	12.24	12.66	12.92	12.29	13.31	13.47	13.17	14.18	14.57	13.94
08/12/00	12.70	13.17	12.40	12.77	13.07	12.45	13.45	13.63	13.32	14.21	14.41	14.10
08/13/00	12.77	13.33	12.40	12.86	13.07	12.61	13.49	13.63	13.32	14.26	14.57	14.10
08/14/00	12.85	13.33	12.56	12.92	13.07	12.76	13.53	13.78	13.32	14.28	14.57	14.10
08/15/00	12.94	13.33	12.71	13.02	13.22	12.76	13.65	13.93	13.47	14.37	14.57	14.10
08/16/00	13.03	13.33	12.71	13.10	13.38	12.92	13.73	13.93	13.63	14.46	14.73	14.26
08/17/00	13.19	13.64	12.71	13.25	13.38	13.07	13.85	14.24	13.78	14.48	14.73	14.26
08/18/00	13.20	13.48	12.87	13.21	13.38	13.07	13.91	14.24	13.78	14.49	15.04	14.26
08/19/00	13.16	13.64	12.87	13.16	13.38	13.07	13.82	13.93	13.78	14.53	14.88	14.26
08/20/00	13.31	13.64	13.02	13.26	13.84	13.07	13.88	14.09	13.78	14.60	15.04	14.41
08/21/00	13.33	13.79	13.02	13.31	13.53	13.22	13.91	14.09	13.63	14.64	14.88	14.41
08/22/00	13.42	13.79	13.17	13.38	13.53	13.22	13.89	14.09	13.78	14.66	15.04	14.57
08/23/00	13.44	13.94	13.17	13.46	13.53	13.22	14.02	14.24	13.78	14.69	15.21	14.41
08/24/00	13.47	13.79	13.33	13.51	13.84	13.38	14.01	14.24	13.78	14.79	15.21	14.57
08/25/00	13.59	14.10	13.33	13.66	13.84	13.53	14.05	14.24	13.93	14.97	15.52	14.73
08/26/00	13.65	13.94	13.33	13.71	13.84	13.53	14.18	14.40	13.93	15.06	15.37	14.88
08/27/00	13.74	14.10	13.33	13.80	13.99	13.69	14.21	14.40	14.09	15.05	15.52	14.73
08/28/00	13.71	14.10	13.48	13.76	13.84	13.53	14.29	14.40	14.09	15.10	15.52	14.73
08/29/00	13.74	14.26	13.48	13.75	13.99	13.69	14.34	14.56	14.09	15.18	15.52	14.88
08/30/00	13.79	14.10	13.48	13.82	14.15	13.69	14.35	14.40	14.24	15.29	15.52	15.04
08/31/00	13.76	14.10	13.48	13.78	14.15	13.53	14.29	14.56	14.09	15.27	15.52	14.88

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek PH1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	13.65	14.10	13.33	13.63	13.84	13.38	14.32	14.40	14.24	15.34	15.84	15.04
09/02/00	13.62	13.94	13.33	13.58	13.84	13.38	14.10	14.24	13.93	15.31	15.84	14.88
09/03/00	13.62	13.94	13.33	13.59	13.69	13.38	14.12	14.24	14.09	15.36	15.68	15.04
09/04/00	13.56	14.10	13.33	13.52	13.84	13.22	14.17	14.24	14.09	15.53	15.84	15.04
09/05/00	13.63	13.94	13.33	13.51	13.84	13.22	14.31	14.56	14.24	15.57	16.00	15.21
09/06/00	13.58	14.10	13.17	13.48	13.99	13.07	14.29	14.40	14.09	15.55	16.00	15.21
09/07/00	13.65	14.10	13.17	13.62	13.99	13.38	14.24	14.40	14.09	15.73	16.32	15.37
09/08/00	13.82	14.10	13.64	13.79	14.15	13.53	14.36	14.56	14.09	15.92	16.47	15.37
09/09/00	13.90	14.41	13.79	13.89	14.31	13.69	14.48	14.56	14.24	15.94	16.32	15.68
09/10/00	13.91	14.57	13.64	13.87	14.15	13.69	14.55	14.71	14.24	16.06	16.47	15.84
09/11/00	13.95	14.10	13.79	13.95	14.15	13.84	14.53	14.71	14.24	16.16	16.47	15.84
09/12/00	13.99	14.26	13.79	13.98	14.15	13.84	14.63	14.71	14.56	16.46	16.79	16.00
09/13/00	14.06	14.26	13.94	14.09	14.31	13.99	14.78	15.03	14.56	16.57	16.95	16.16
09/14/00	14.08	14.41	13.94	14.10	14.31	13.99	14.88	15.03	14.71	16.70	18.07	16.32
09/15/00	14.07	14.26	13.94	14.11	14.31	13.99	14.91	15.03	14.71	17.02	17.58	16.63
09/16/00	14.11	14.41	13.94	14.14	14.31	13.99	15.00	15.19	14.71	17.15	17.74	16.79
09/17/00	14.17	14.41	14.10	14.19	14.46	13.99	15.10	15.34	14.87	17.46	17.91	16.95
09/18/00	14.18	14.41	14.10	14.18	14.46	13.99	15.33	15.51	15.19	17.60	17.74	17.27
09/19/00	14.23	14.41	14.10	14.21	14.31	14.15	15.30	15.51	15.03	17.65	17.91	17.58
09/20/00	14.31	14.57	14.10	14.34	14.46	14.15	15.39	15.66	15.19	17.78	18.07	17.43
09/21/00	14.32	14.72	14.10	14.36	14.62	14.15	15.33	15.51	15.03	17.80	18.07	17.58
09/22/00	14.27	14.72	14.10	14.29	14.62	14.15	15.25	15.51	14.87	17.89	18.23	17.58
09/23/00	14.30	14.57	13.94	14.26	14.46	14.15	15.07	15.82	14.71	17.90	18.07	17.74
09/24/00	14.14	14.57	13.64	14.12	14.46	13.69	15.78	16.29	15.51	18.00	18.07	17.74
09/25/00	14.21	14.57	13.79	14.14	14.46	13.84	16.40	16.77	16.14	18.05	18.39	17.74
09/26/00	14.04	14.41	13.48	14.06	14.31	13.69	16.69	16.93	16.46	18.15	18.39	17.91
09/27/00	13.70	15.20	11.16	14.01	14.46	13.69	16.64	17.09	15.98	18.34	18.39	18.07
09/28/00	14.11	14.41	12.24	14.07	14.31	13.84	16.96	17.09	16.62	18.17	18.39	17.91
09/29/00	14.22	14.57	13.79	14.09	14.31	13.69	17.01	17.25	16.62	18.14	18.23	18.07
09/30/00	14.35	15.04	13.79	14.11	14.46	13.84	17.27	17.41	17.09	18.22	18.23	18.07

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek PH1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	14.39	15.04	14.10	14.19	14.62	13.84	17.22	17.41	16.93	18.21	18.23	18.07
10/02/00	14.29	14.57	13.94	14.27	14.78	13.84	16.78	17.25	16.62	18.16	18.23	18.07
10/03/00	14.43	14.88	14.26	14.35	14.78	14.15	16.54	16.77	16.29	18.09	18.23	18.07
10/04/00	14.54	14.88	14.26	14.51	14.93	14.15	16.35	16.46	16.29	18.06	18.07	17.91
10/05/00	14.54	14.88	14.10	14.51	14.93	14.15	16.44	16.62	16.29	18.07	18.07	17.91
10/06/00	14.61	14.88	14.26	14.58	15.26	14.15	16.30	16.62	15.98	18.07	18.07	18.07
10/07/00	14.56	15.04	14.26	14.41	14.93	14.15	16.25	16.62	15.66	18.07	18.07	18.07
10/08/00	14.67	15.36	14.26	14.60	15.09	14.31	16.41	16.77	15.98	18.07	18.07	18.07
10/09/00	14.63	15.04	14.26	14.59	14.93	14.31	16.36	16.46	16.14	18.11	18.23	18.07
10/10/00	F	F	F	14.37	14.62	14.15	15.80	16.29	15.03	17.91	18.07	17.74
10/11/00	F	F	F	14.26	14.46	13.99	15.89	16.14	15.51	17.64	17.74	17.43
10/12/00	F	F	F	14.14	14.31	13.84	15.80	15.98	15.66	17.35	17.43	17.27
10/13/00	F	F	F	14.00	14.15	13.84	15.82	15.98	15.66	17.07	17.27	16.95
10/14/00	F	F	F	13.85	13.99	13.53	15.66	15.98	15.34	16.85	16.95	16.79
10/15/00	F	F	F	13.83	13.99	13.53	15.50	15.66	15.34	16.74	16.79	16.63
10/16/00	13.83	14.10	13.64	13.79	13.99	13.69	15.52	15.66	15.51	16.60	16.63	16.47
10/17/00	13.72	13.94	13.33	13.71	13.99	13.38	15.48	15.51	15.34	16.48	16.63	16.47
10/18/00	13.67	13.94	13.33	13.70	13.99	13.38	15.48	15.82	15.34	16.44	16.47	16.32
10/19/00	13.67	13.94	13.48	13.62	13.99	13.53	15.33	15.34	15.19	16.32	16.32	16.32
10/20/00	13.57	13.79	13.48	13.55	13.84	13.38	15.22	15.34	15.03	16.26	16.32	16.16
10/21/00	13.45	13.64	13.17	13.44	13.53	13.38	15.17	15.19	15.03	16.20	16.32	16.16
10/22/00	13.11	13.48	13.02	13.11	13.38	12.92	14.95	15.34	14.56	15.99	16.16	15.84
10/23/00				12.95	13.07	12.76	14.69	14.71	14.56	15.83	15.84	15.68
10/24/00				10.71	12.92	7.04	14.63	14.71	14.56			
10/25/00				8.61	13.53	5.63	14.53	14.56	14.40			
10/26/00				5.51	8.27	3.29	14.38	14.56	14.24			
10/27/00												
10/28/00												
10/29/00												
10/30/00												
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00										7.89	11.91	4.62
06/07/00										8.24	11.59	5.40
06/08/00										4.51	7.88	2.58
06/09/00										5.70	9.73	2.74
06/10/00										6.73	10.36	3.68
06/11/00										7.75	11.59	4.46
06/12/00										8.81	11.91	6.02
06/13/00										10.54	14.23	7.26
06/14/00										11.23	14.85	8.19
06/15/00										12.20	15.64	9.12
06/16/00										12.78	15.96	10.20
06/17/00										12.78	15.96	10.36
06/18/00										12.49	15.64	9.89
06/19/00										11.76	14.85	8.81
06/20/00										12.40	15.48	9.73
06/21/00										12.62	15.96	9.73
06/22/00										12.81	15.80	10.20
06/23/00										12.61	15.64	10.04
06/24/00										12.27	15.32	9.42
06/25/00										12.60	15.80	9.89
06/26/00										12.71	15.80	10.04
06/27/00							11.10	11.31	10.84	12.96	16.12	10.20
06/28/00	12.46	12.92	12.14	11.33	11.51	11.05	11.28	11.46	11.00	13.66	16.91	10.97
06/29/00	12.52	13.08	12.14	11.45	11.67	11.21	11.39	11.77	11.16	13.78	16.91	10.97
06/30/00	12.39	13.23	12.14	11.40	11.82	11.21	11.37	12.08	11.16	13.70	16.75	11.28

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	12.34	12.77	11.99	11.39	11.67	11.21	11.34	11.62	11.16	12.21	15.32	9.58
07/02/00	12.25	12.77	11.84	11.44	11.67	11.21	11.38	11.62	11.16	11.42	14.69	8.50
07/03/00	12.28	12.61	11.99	11.49	11.67	11.36	11.44	11.62	11.31	11.24	14.23	8.96
07/04/00	12.20	12.30	11.99	11.44	11.51	11.36	11.37	11.46	11.16	10.14	13.45	7.11
07/05/00	12.29	12.46	12.14	11.49	11.82	11.36	11.44	11.93	11.31	10.18	13.45	7.57
07/06/00	12.42	12.61	12.30	11.58	11.67	11.51	11.51	11.62	11.46	10.57	13.92	7.88
07/07/00	12.47	12.61	12.30	11.65	11.82	11.51	11.58	11.77	11.46	10.49	14.07	7.57
07/08/00	12.87	14.31	12.14	11.72	12.13	11.51	11.72	12.08	11.62	10.58	15.01	6.33
07/09/00	12.99	15.26	11.99	11.81	12.28	11.67	12.28	13.48	11.62	11.21	17.07	6.02
07/10/00	13.49	15.58	12.14	12.03	12.44	11.36	12.11	13.02	11.46	12.32	18.03	7.73
07/11/00	13.57	15.10	12.30	12.19	12.59	11.97	12.23	12.71	11.93	13.07	19.32	8.04
07/12/00	13.41	15.58	12.30	12.11	12.44	11.67	13.22	13.94	12.08	13.29	19.81	8.66
07/13/00	14.16	16.53	12.46	11.98	12.28	11.82	12.28	13.17	11.77	12.93	20.13	7.73
07/14/00	13.30	15.89	12.14	11.96	12.13	11.82	12.02	12.24	11.77	13.02	20.62	7.26
07/15/00	13.85	15.42	12.30	12.23	12.75	11.97	12.39	13.48	11.93	13.22	19.48	8.04
07/16/00	14.04	15.26	12.30	12.28	12.75	11.82	12.66	13.63	11.77	13.38	19.00	9.73
07/17/00	12.97	14.00	12.14	12.09	12.44	11.82	12.44	13.48	11.77	12.96	19.64	7.73
07/18/00	13.74	15.42	12.30	12.31	12.91	11.97	12.48	13.02	12.08	12.64	19.97	6.64
07/19/00	13.71	15.42	12.46	12.47	12.91	12.13	12.68	13.32	12.08	12.70	20.62	6.33
07/20/00	13.18	16.53	12.61	12.63	12.91	12.13	12.65	13.32	12.08	12.64	21.61	6.33
07/21/00	12.97	13.08	12.77	12.39	12.75	12.13	12.36	12.71	12.08	12.53	16.12	9.42
07/22/00	13.07	14.47	12.77	12.43	12.75	12.28	12.41	12.71	12.24	12.86	16.43	9.89
07/23/00	13.08	13.23	12.92	12.52	12.75	12.44	12.45	12.55	12.24	12.71	16.12	9.58
07/24/00	13.58	15.89	12.92	12.69	13.21	12.13	12.64	13.17	12.08	13.03	16.43	10.20
07/25/00	13.36	14.63	12.92	12.72	13.06	12.44	12.69	13.02	12.39	13.05	16.27	10.36
07/26/00	13.19	13.38	12.92	12.68	13.06	12.59	12.64	13.02	12.55	12.96	16.27	10.36
07/27/00	13.54	15.42	12.92	12.74	13.21	12.44	12.69	13.17	12.39	12.52	15.96	9.58
07/28/00	13.59	15.10	13.08	12.84	13.21	12.44	12.78	13.17	12.39	12.44	15.80	9.42
07/29/00	13.72	17.64	13.08	12.89	13.21	12.44	12.89	13.32	12.39	12.81	15.96	10.04
07/30/00	14.03	16.69	13.08	12.89	13.21	12.59	12.99	13.48	12.55	14.00	17.07	11.28
07/31/00	13.89	17.32	13.08	12.94	13.06	12.75	12.96	13.48	12.86	14.63	17.55	11.91

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	14.11	16.84	13.38	13.14	13.68	12.91	13.10	13.63	12.86	15.27	18.03	13.14
08/02/00	13.84	15.26	13.38	13.17	13.83	12.91	13.13	13.78	12.86	14.50	16.59	12.68
08/03/00	14.06	15.58	13.38	13.21	13.52	12.75	13.20	13.48	12.71	14.51	17.23	12.37
08/04/00	13.99	15.89	13.38	13.34	13.68	13.06	13.32	13.78	13.02	14.75	17.71	12.37
08/05/00	14.44	16.37	13.38	13.45	13.68	13.21	13.47	13.94	13.17	14.38	17.39	11.75
08/06/00	14.24	15.58	13.23	13.40	13.68	13.06	13.47	13.94	13.02	14.22	17.23	11.75
08/07/00	14.10	16.53	13.38	13.36	13.52	13.21	13.40	13.94	13.17	13.81	16.75	11.44
08/08/00	13.93	15.58	13.54	13.34	13.52	13.06	13.35	14.09	13.02	13.36	16.27	10.82
08/09/00	13.96	16.69	13.54	13.37	13.68	13.06	13.34	13.63	13.17	12.80	15.64	10.20
08/10/00	14.08	17.97	13.38	13.43	13.68	13.06	13.43	14.25	13.02	12.27	15.17	9.58
08/11/00	14.16	17.17	13.54	13.43	13.83	13.06	13.41	13.78	13.02	11.97	15.17	8.96
08/12/00	14.27	16.37	13.69	13.59	13.98	13.21	13.57	14.09	13.17	11.84	15.01	8.66
08/13/00	14.15	15.42	13.54	13.61	13.68	13.37	13.75	14.56	13.32	12.03	15.17	9.27
08/14/00	14.46	17.81	13.69	13.72	14.14	13.37	13.71	14.25	13.32	11.88	15.01	8.96
08/15/00	14.49	16.37	13.84	13.82	14.14	13.52	13.79	14.25	13.48	12.54	15.64	9.89
08/16/00	14.40	16.06	13.84	13.89	14.29	13.52	13.89	14.41	13.63	12.84	15.80	10.36
08/17/00	14.64	17.32	13.54	13.98	14.14	13.68	14.22	15.20	13.63	12.79	15.64	10.36
08/18/00	14.76	16.53	13.69	13.99	14.29	13.68	14.34	15.99	13.78	11.94	14.85	9.42
08/19/00	14.56	15.89	13.84	13.96	14.14	13.68	14.19	15.68	13.63	11.08	13.92	8.50
08/20/00	14.49	15.58	13.84	13.96	14.14	13.83	14.20	14.72	13.78	10.74	13.76	7.88
08/21/00	14.59	15.74	13.69	14.01	14.14	13.68	14.41	16.15	13.63	10.69	13.76	7.88
08/22/00	14.74	16.37	13.69	14.02	14.29	13.68	14.35	15.20	13.78	10.87	13.76	8.19
08/23/00	15.02	16.37	13.69	14.11	14.61	13.83	14.38	15.52	13.78	11.30	14.07	8.96
08/24/00	14.28	15.74	13.69	14.11	14.29	13.83	14.34	15.52	13.78	11.33	14.07	8.66
08/25/00	14.71	16.21	14.00	14.19	14.29	13.98	14.36	15.20	13.94	12.59	15.01	10.51
08/26/00	15.09	17.48	14.16	14.26	14.45	13.98	14.56	15.83	14.09	13.15	15.80	11.28
08/27/00	15.32	17.48	14.16	14.36	14.61	14.14	14.58	15.36	14.09	12.90	15.48	10.67
08/28/00	15.22	17.48	14.31	14.43	14.76	14.29	14.56	15.36	14.25	12.66	14.54	10.67
08/29/00	15.37	17.48	14.31	14.47	14.76	14.29	14.87	17.10	14.25	12.31	12.83	11.75
08/30/00	15.44	16.53	14.31	14.49	14.76	14.29	15.08	16.94	14.25	11.93	13.14	11.13
08/31/00	15.32	16.37	14.31	14.44	14.76	14.14	14.88	15.83	14.25	11.33	13.45	9.58

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	14.60	15.26	12.61	14.45	14.61	14.14	14.94	15.52	14.25	9.44	10.82	8.34
09/02/00	14.61	15.26	14.16	14.17	14.45	13.98	14.52	15.04	13.94	9.18	10.67	7.88
09/03/00	14.46	15.10	14.00	14.21	14.29	13.98	14.47	14.88	14.09	9.29	11.28	7.42
09/04/00	14.28	14.78	13.69	14.31	14.45	14.14	14.47	14.72	14.09	8.74	10.67	6.80
09/05/00	14.37	14.78	13.54	14.42	14.76	14.14	14.55	15.20	14.25	8.21	10.82	6.02
09/06/00	14.35	14.94	13.38	14.39	14.61	14.14	14.91	15.83	14.25	7.96	10.67	5.56
09/07/00	14.53	15.26	13.54	14.39	14.61	14.14	14.82	16.78	14.09	8.30	10.97	5.87
09/08/00	14.76	15.26	14.00	14.53	14.76	14.14	14.64	16.47	14.09	8.80	11.28	6.64
09/09/00	14.90	15.26	14.00	14.62	14.92	14.29	14.76	16.15	14.41	8.70	11.13	6.33
09/10/00	15.10	15.74	14.31	14.73	14.92	14.29	14.87	15.68	14.25	8.98	11.44	6.64
09/11/00	15.16	15.74	14.63	14.69	14.92	14.29	14.72	16.31	14.25	8.83	11.28	6.49
09/12/00	15.23	15.58	14.94	14.76	14.92	14.45	14.72	14.88	14.41	9.01	10.97	6.64
09/13/00	15.45	16.21	15.10	14.95	15.24	14.61	14.93	15.36	14.72	10.43	12.37	8.66
09/14/00	15.58	16.06	15.10	15.08	15.24	14.76	15.03	15.52	14.72	10.75	12.99	8.96
09/15/00	15.65	16.06	15.10	15.09	15.39	14.76	15.05	15.36	14.72	10.56	12.68	8.66
09/16/00	15.81	16.06	15.42	15.17	15.39	14.61	15.14	15.52	14.72	9.79	12.06	7.73
09/17/00	15.92	16.37	15.58	15.35	15.56	14.92	15.31	15.68	14.88	10.07	12.37	8.04
09/18/00	16.25	16.84	15.58	15.54	15.87	15.24	15.60	16.47	15.36	10.18	12.37	8.04
09/19/00	16.18	16.84	15.42	15.49	15.87	14.92	15.60	16.47	14.88	10.38	12.37	8.34
09/20/00	16.39	16.84	15.58	15.62	15.87	15.08	15.66	16.47	15.04	10.75	12.83	8.96
09/21/00	16.41	18.13	15.26	15.50	15.87	15.08	15.57	16.47	14.88	10.72	12.83	9.12
09/22/00	16.42	16.69	15.58	15.44	15.71	14.76	15.45	16.31	14.72	9.07	10.36	8.34
09/23/00	15.75	16.69	14.31	15.24	16.50	14.61	15.28	16.31	14.56	8.13	9.58	6.33
09/24/00	16.33	17.01	14.00	16.15	16.98	15.56	16.16	16.94	15.36	8.06	10.20	6.18
09/25/00	16.33	17.01	14.31	16.88	17.29	16.50	17.02	17.42	16.47	7.91	9.89	6.02
09/26/00	16.76	17.17	15.42	17.05	17.29	16.66	17.12	17.74	16.78	7.79	9.58	5.87
09/27/00	16.54	17.32	14.47	17.07	17.46	16.34	17.30	17.90	16.31	8.00	9.89	6.33
09/28/00	16.67	17.32	14.47	17.33	17.46	16.82	17.44	17.74	16.78	8.14	10.04	6.49
09/29/00	16.80	17.48	14.31	17.43	17.77	16.82	17.53	17.74	16.78	8.14	10.04	6.33
09/30/00	17.32	17.64	15.10	17.71	17.93	17.46	17.71	18.06	17.42	8.27	10.20	6.49

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	16.91	17.64	14.31	17.61	17.77	17.29	17.70	18.06	17.26	8.19	9.89	6.64
10/02/00	17.08	17.81	14.78	17.08	17.61	16.50	17.14	17.90	16.47	8.07	9.89	6.33
10/03/00	17.58	17.81	16.53	16.73	17.29	16.34	16.69	17.26	16.31	7.93	9.58	6.33
10/04/00	17.53	17.81	15.58	16.51	16.66	16.03	16.49	16.78	16.15	7.59	9.27	6.02
10/05/00	17.46	17.81	15.26	16.64	17.13	16.18	16.63	17.10	16.15	7.62	9.27	6.02
10/06/00	17.21	17.97	15.10	16.45	17.46	15.56	16.45	17.26	15.52	7.64	9.27	6.18
10/07/00	16.58	17.81	14.47	16.43	17.29	15.39	16.38	17.42	15.52	7.81	9.42	6.33
10/08/00	17.41	17.81	15.42	16.65	17.46	15.87	16.60	17.42	15.52	7.67	9.27	6.18
10/09/00	17.76	17.97	17.48	16.55	16.82	16.18	16.50	16.78	16.15	7.07	8.66	5.40
10/10/00	15.00	17.64	8.58	15.74	16.50	14.45	15.79	16.31	14.41	2.43	5.40	0.67
10/11/00	16.54	17.48	12.92	16.05	16.50	15.24	16.08	16.63	14.88	2.83	3.68	1.94
10/12/00	16.62	17.32	13.38	15.86	16.34	15.39	15.84	16.31	15.36	3.41	4.15	2.74
10/13/00	16.84	17.01	15.74	15.99	16.18	15.71	15.95	16.15	15.68	3.62	5.09	2.42
10/14/00	16.00	16.69	12.77	15.72	16.34	14.92	15.73	16.31	14.88	3.78	5.24	2.74
10/15/00	15.99	16.69	12.77	15.65	15.87	14.92	15.65	15.99	14.88	3.89	5.40	2.74
10/16/00	16.44	16.53	14.31	15.64	15.87	15.56	15.61	15.83	15.52	4.18	5.87	2.89
10/17/00	15.91	16.53	12.77	15.57	15.87	15.39	15.57	15.99	15.36	4.41	6.02	3.06
10/18/00	15.93	16.53	13.08	15.58	16.03	15.24	15.53	16.15	15.20	4.81	6.33	3.37
10/19/00	16.25	16.37	15.26	15.40	15.56	15.08	15.38	15.52	15.04	4.85	6.33	3.53
10/20/00	16.04	16.37	13.38	15.32	15.56	14.92	15.30	15.68	14.72	4.88	6.33	3.53
10/21/00	15.91	16.21	13.84	15.24	15.71	15.08	15.20	15.83	15.04	4.47	5.71	3.53
10/22/00	15.49	15.89	12.46	14.95	15.87	14.14	14.94	15.83	14.09	3.46	4.62	2.42
10/23/00	15.50	15.89	12.77	14.74	14.92	14.45	14.68	14.88	14.09	3.25	4.62	2.10
10/24/00	15.56	15.74	15.10	14.68	14.76	14.45	14.63	14.72	14.25	3.50	4.78	2.42
10/25/00	15.44	15.58	12.77	14.58	14.92	14.14	14.54	14.88	14.09	3.56	4.62	2.74
10/26/00	14.87	15.42	11.53	14.45	14.61	14.14	14.47	14.88	14.09			
10/27/00							14.19	14.72	13.63			
10/28/00							14.06	14.56	13.48			
10/29/00												
10/30/00												
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00	7.09	11.74	3.69									
06/07/00	7.22	11.28	4.32									
06/08/00	3.67	6.19	2.12									
06/09/00	5.26	9.58	2.28									
06/10/00	6.16	10.36	2.91									
06/11/00	7.09	11.43	3.69									
06/12/00	8.19	11.89	5.10									
06/13/00	9.75	14.06	6.19									
06/14/00	10.37	14.53	7.11							12.80	17.41	9.13
06/15/00	11.26	15.00	7.89							13.50	17.88	9.90
06/16/00	11.81	15.47	8.81							14.05	18.37	10.99
06/17/00	11.65	15.00	8.96							13.73	17.88	10.84
06/18/00	11.43	15.16	8.66							13.09	17.08	10.22
06/19/00	10.78	14.37	7.42							12.25	16.45	8.67
06/20/00	11.53	15.00	8.66	10.98	14.29	8.26	11.85	14.99	8.95	12.83	16.93	9.74
06/21/00	11.73	15.16	8.66	11.18	14.60	8.42	12.13	15.31	9.11	12.99	17.24	9.59
06/22/00	11.90	15.16	8.96	11.14	14.44	8.42	12.12	14.99	9.26	13.14	16.93	10.06
06/23/00	11.70	15.00	8.96	10.92	14.13	8.42	11.93	14.99	9.26	12.84	16.77	9.90
06/24/00	11.35	14.68	8.19	10.54	13.98	7.64	11.50	14.36	8.64	12.36	16.13	9.13
06/25/00	11.76	15.31	8.96	10.87	14.29	8.26	11.64	15.15	8.80	12.62	16.45	9.74
06/26/00	11.67	14.68	9.12	10.52	13.52	8.42	11.16	13.28	8.95	12.05	14.87	9.59
06/27/00	12.03	15.31	9.12	11.01	14.13	8.42	11.59	14.67	8.80	12.33	15.82	9.43
06/28/00	12.74	16.26	10.20	11.60	15.39	9.34	12.28	15.15	10.03	13.38	17.24	10.53
06/29/00	12.87	16.42	10.04	11.75	15.23	9.03	12.41	15.47	9.57	13.60	17.41	10.68
06/30/00	12.91	16.26	10.51	11.70	14.92	9.49	12.61	15.31	10.19	13.40	16.93	10.84

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	11.28	14.68	8.66	10.12	13.36	7.64	10.94	13.74	8.18	11.80	15.50	8.97
07/02/00	10.57	14.06	7.73	9.59	13.21	6.72	10.24	13.43	7.26	11.00	14.87	7.90
07/03/00	10.59	13.91	8.50	9.49	12.74	7.34	10.15	12.97	7.88	10.83	14.24	8.51
07/04/00	9.48	12.98	6.49	8.54	12.12	5.63	9.12	12.19	6.17	9.79	13.47	6.66
07/05/00	9.63	13.13	6.96	8.85	12.12	6.26	9.34	12.35	6.64	9.95	13.47	7.13
07/06/00	10.12	13.75	7.42	9.30	12.74	6.72	9.77	12.82	7.11	10.37	14.08	7.43
07/07/00	9.87	13.60	6.96	8.75	12.28	5.79	9.43	12.66	6.33	10.02	13.93	6.82
07/08/00	10.09	13.91	7.27	9.19	12.90	6.26	9.68	12.97	6.79	10.32	14.08	7.28
07/09/00	10.39	14.06	7.42	9.63	13.06	6.72	10.24	13.28	7.41	10.71	14.24	7.59
07/10/00	11.17	14.68	8.50	10.40	13.52	7.80	10.95	13.74	8.49	11.40	14.71	8.67
07/11/00	11.72	15.16	8.96	10.84	13.98	8.11	11.52	14.21	8.95	11.94	15.18	9.13
07/12/00	11.95	15.63	9.27	10.88	13.98	8.57	11.77	14.67	9.41	12.11	15.34	9.43
07/13/00	11.52	15.31	8.66	10.41	13.67	7.80	11.21	14.21	8.64	11.59	14.87	8.82
07/14/00	11.61	15.31	8.66	10.64	14.13	7.64	11.18	14.36	8.34	11.63	15.02	8.51
07/15/00	11.94	15.47	9.27	10.96	13.98	8.26	11.67	14.36	9.26	11.93	15.02	9.28
07/16/00	12.09	15.31	10.04	11.01	13.52	9.19	11.69	14.05	9.88	12.10	14.71	10.22
07/17/00	11.72	15.47	8.96	10.58	13.67	7.80	11.35	14.21	8.80	11.57	14.71	8.67
07/18/00	11.48	15.16	8.66	10.36	13.67	7.49	11.11	14.05	8.34	11.35	14.55	8.36
07/19/00	11.38	15.16	8.35	10.24	13.36	7.18	10.83	13.89	8.03	11.32	14.55	8.21
07/20/00	11.64	15.47	8.66				11.14	14.21	8.34	11.70	14.87	8.51
07/21/00	11.83	15.78	8.81				11.37	14.52	8.49	11.88	15.02	8.82
07/22/00	12.11	15.94	9.27				11.46	14.52	8.64	11.82	15.02	8.67
07/23/00	11.98	15.63	9.12				11.54	14.52	8.80	11.79	14.71	8.67
07/24/00	12.40	16.10	9.89				11.75	14.67	9.26	12.26	15.02	9.59
07/25/00	12.46	16.10	10.04				11.79	14.67	9.41	12.19	14.71	9.74
07/26/00	12.45	16.10	10.04				11.82	14.67	9.57	12.02	14.55	9.59
07/27/00	11.98	15.78	9.42				11.35	14.21	8.64	11.59	14.39	8.82
07/28/00	11.81	15.63	9.12				11.17	14.21	8.34	11.38	14.08	8.51
07/29/00	12.21	15.78	9.73				11.54	14.52	8.95	11.93	14.55	9.28
07/30/00	13.37	16.73	10.97				12.64	15.31	10.34	13.21	15.66	10.84
07/31/00	14.03	17.37	11.74				13.06	15.94	10.81	13.84	16.13	11.46

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	14.63	17.53	12.98	13.49	15.96	11.91	13.58	15.78	12.04	14.46	16.29	12.85
08/02/00	14.00	16.58	12.52	12.71	15.32	10.97	13.17	14.67	11.88	13.89	15.66	12.07
08/03/00	14.10	17.21	12.21	13.10	16.27	10.82	13.43	15.78	11.42	13.87	16.13	11.77
08/04/00	14.35	17.85	12.21	13.28	16.59	10.97	13.63	15.94	11.42	13.79	15.82	11.77
08/05/00	13.98	17.37	11.74	12.80	16.27	10.20	13.18	15.47	10.96	13.10	15.34	10.84
08/06/00	13.89	17.37	11.74	12.78	16.12	10.67	13.10	15.47	10.96	13.00	15.02	11.15
08/07/00	13.51	16.89	11.43	12.29	15.64	10.20	12.65	14.99	10.66	12.44	14.39	10.68
08/08/00	13.11	16.42	10.97	11.90	15.32	9.58	12.21	14.52	10.03	11.90	13.93	9.90
08/09/00	12.57	15.94	10.20	11.19	14.53	8.66	11.73	13.89	9.41	11.15	13.16	8.82
08/10/00	11.98	15.31	9.58	10.55	14.22	7.88	11.07	13.43	8.64	10.49	12.85	8.05
08/11/00	11.69	15.31	8.96	10.39	14.22	7.42	10.63	13.12	7.88	10.28	12.85	7.59
08/12/00	11.58	15.31	8.81	10.59	14.53	7.57	10.72	13.28	8.03	10.29	12.85	7.59
08/13/00	11.72	15.31	9.27	10.55	14.38	7.88	10.70	13.12	8.18	10.26	12.54	7.90
08/14/00				10.72	14.53	7.88	10.81	13.59	8.18	10.34	12.69	7.74
08/15/00				11.44	15.32	8.96	11.26	14.05	8.64	11.14	13.31	9.13
08/16/00				11.80	15.64	9.27	11.55	14.21	8.95	11.51	13.47	9.43
08/17/00				11.64	15.48	9.42	11.55	14.21	9.11	11.34	13.16	9.59
08/18/00				10.55	14.38	8.04	10.62	13.28	8.03	10.14	11.92	8.05
08/19/00				9.77	13.76	7.26	9.86	12.51	7.11	9.19	11.15	7.13
08/20/00				9.55	13.61	6.80	9.54	12.35	6.79	8.84	10.84	6.66
08/21/00				9.77	13.91	7.11	9.55	12.35	6.79	8.93	10.99	6.66
08/22/00				9.92	13.91	7.11	9.66	12.35	6.95	9.13	10.99	6.97
08/23/00				10.46	14.53	8.19	10.07	12.66	7.72	9.70	11.46	7.90
08/24/00				10.60	14.53	7.88	10.18	12.82	7.41	9.69	11.61	7.59
08/25/00				11.59	13.61	10.20	10.77	12.51	9.26	11.19	12.69	9.74
08/26/00				12.31	16.12	10.51	11.61	14.05	9.72	11.77	13.16	10.53
08/27/00				12.20	16.12	10.04	11.49	13.89	9.26	11.39	12.85	9.74
08/28/00				11.84	14.53	9.89	11.33	13.43	9.26	11.19	12.54	9.59
08/29/00				11.45	12.06	10.82	11.13	12.82	10.50	11.33	11.77	10.84
08/30/00				11.13	12.68	10.04	11.07	12.35	10.19	10.90	11.77	10.37
08/31/00				10.49	14.07	8.66	10.46	12.35	8.64	9.74	10.99	8.51

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00				8.37	9.58	7.26	8.78	9.88	7.72	7.90	9.43	6.97
09/02/00				8.76	12.06	6.96	8.53	10.19	7.41	7.58	8.97	6.51
09/03/00				8.65	11.13	6.49	8.19	9.57	6.48	7.61	9.13	5.88
09/04/00				8.17	11.91	5.71	7.58	9.26	5.71	6.84	8.51	5.11
09/05/00				7.56	11.44	5.09	7.18	9.11	5.08	6.36	8.21	4.48
09/06/00				7.40	11.44	4.77	7.08	9.11	4.77	6.16	8.21	4.17
09/07/00				7.85	11.75	5.24	7.24	9.26	4.93	6.60	8.51	4.63
09/08/00				8.41	12.21	6.02	7.76	9.72	5.71	7.28	8.97	5.73
09/09/00				8.30	12.06	5.56	7.75	12.66	5.39	7.04	8.67	5.11
09/10/00				8.71	12.52	6.18	7.78	10.03	5.55	7.25	8.97	5.57
09/11/00				8.59	12.68	5.71	7.74	10.03	5.24	7.19	8.97	5.26
09/12/00				8.84	12.52	6.33	7.82	9.88	5.71	7.46	8.97	5.73
09/13/00				10.26	13.61	8.04	9.30	11.42	7.26	9.16	10.68	7.74
09/14/00				10.62	14.38	8.50	9.41	11.58	7.41	9.51	10.68	8.36
09/15/00				9.90	13.61	7.57	8.94	10.96	6.79	8.85	9.90	7.59
09/16/00				9.39	13.29	6.96	8.55	10.81	6.33	8.04	9.28	6.66
09/17/00				10.04	13.91	7.73	8.96	11.27	6.79	8.59	9.90	7.28
09/18/00				10.33	14.07	7.73	9.11	11.27	6.95	8.81	10.06	7.28
09/19/00				10.53	14.22	8.04	9.25	11.27	7.11	9.10	10.22	7.74
09/20/00				11.00	14.69	8.81	9.61	11.73	7.57	9.51	10.53	8.36
09/21/00				10.83	14.38	8.81	9.53	11.58	7.72	9.42	10.37	8.36
09/22/00				8.88	10.67	7.57	8.04	9.57	6.64	7.90	8.97	7.13
09/23/00				8.04	11.28	5.71	7.46	11.73	5.55	6.50	7.43	5.11
09/24/00				8.06	11.59	5.71	7.01	8.95	5.08	6.30	7.59	4.79
09/25/00				8.28	11.91	6.02	7.06	8.95	5.08	6.47	7.59	5.26
09/26/00				8.04	11.44	5.56	6.90	8.80	4.93	6.14	7.13	4.79
09/27/00				8.39	11.75	6.18	7.11	8.95	5.24	6.39	7.43	5.26
09/28/00				8.67	12.06	6.49	7.26	9.11	5.55	6.69	7.74	5.57
09/29/00				8.80	12.21	6.64	7.41	9.41	5.55	6.90	8.05	5.73
09/30/00				8.92	12.37	6.64	7.50	9.41	5.71	6.98	8.05	5.88

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00				8.75	12.37	6.64	7.43	9.26	5.71	6.83	7.74	5.88
10/02/00				8.61	12.06	6.33	7.12	8.95	5.24	6.58	7.59	5.42
10/03/00				8.42	11.75	6.18	6.99	8.80	5.08	6.35	7.28	5.11
10/04/00				8.17	11.44	6.02	6.79	8.49	5.08	6.07	6.82	5.11
10/05/00				8.40	11.75	6.33	6.90	8.80	5.24	6.10	7.13	5.11
10/06/00				8.41	11.75	6.33	6.89	8.64	5.24	6.16	6.97	5.26
10/07/00				8.42	11.28	6.49	7.04	8.95	5.24	6.33	7.13	5.42
10/08/00				8.29	11.44	6.33	6.90	8.49	5.24	6.16	6.82	5.26
10/09/00				7.56	10.67	4.93	6.39	7.88	4.77	5.59	6.51	3.54
10/10/00				3.53	4.93	2.43	3.42	5.08	2.11	2.30	3.39	1.49
10/11/00				3.25	5.24	1.96	3.10	3.68	2.27	1.81	2.44	0.85
10/12/00				3.80	6.02	2.74	3.63	4.77	2.74	2.35	3.08	1.49
10/13/00				4.28	7.11	2.43	3.48	4.62	2.27	2.59	3.70	1.33
10/14/00				4.73	7.73	3.06	3.43	4.62	2.43	3.05	4.17	2.13
10/15/00				5.09	8.19	3.22	3.58	4.93	2.43	3.28	4.32	2.28
10/16/00				5.60	8.81	3.68	3.86	5.08	2.74	3.69	4.95	2.60
10/17/00				5.88	8.96	3.99	4.12	5.39	2.90	3.94	5.11	2.76
10/18/00				5.81	7.88	4.15	4.52	5.86	3.22	4.25	5.42	3.08
10/19/00				5.98	8.96	4.15	4.53	5.71	3.37	4.10	5.11	3.08
10/20/00				6.19	8.96	4.46	4.64	5.86	3.37	4.19	5.26	3.08
10/21/00				5.32	8.66	3.53	4.31	5.55	3.37	3.72	4.63	2.76
10/22/00				3.98	6.80	2.43	3.16	4.15	2.27	2.37	3.23	1.49
10/23/00				4.16	7.11	2.59	2.90	3.99	1.96	2.34	3.23	1.49
10/24/00				4.62	7.42	2.90	3.11	4.31	2.11	2.70	3.70	1.81
10/25/00				4.55	6.49	3.37	3.53	4.62	2.43	2.87	3.70	2.13
10/26/00												
10/27/00												
10/28/00												
10/29/00												
10/30/00												
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
05/01/00			
05/02/00			
05/03/00			
05/04/00			
05/05/00			
05/06/00			
05/07/00			
05/08/00			
05/09/00			
05/10/00			
05/11/00			
05/12/00			
05/13/00			
05/14/00			
05/15/00			
05/16/00			
05/17/00			
05/18/00			
05/19/00			
05/20/00			
05/21/00			
05/22/00			
05/23/00			
05/24/00			
05/25/00			
05/26/00			
05/27/00			
05/28/00			
05/29/00			
05/30/00			
05/31/00			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
06/01/00			
06/02/00			
06/03/00			
06/04/00			
06/05/00			
06/06/00			
06/07/00			
06/08/00			
06/09/00			
06/10/00			
06/11/00			
06/12/00			
06/13/00			
06/14/00	13.7	16.2	11.1
06/15/00	14.7	17.2	12.0
06/16/00	15.7	18.1	13.4
06/17/00	15.5	17.6	13.2
06/18/00	14.8	17.3	12.6
06/19/00	14.2	16.7	11.2
06/20/00	14.8	17.3	12.3
06/21/00	15.1	17.6	12.3
06/22/00	15.3	17.8	12.8
06/23/00	15.3	18.0	12.8
06/24/00	14.8	17.2	12.1
06/25/00	14.8	17.8	12.3
06/26/00	13.5	15.1	11.8
06/27/00	13.7	16.8	11.1
06/28/00	14.0	17.0	11.7
06/29/00	14.8	17.6	11.8
06/30/00	15.4	18.3	13.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
07/01/00	14.4	17.3	11.8
07/02/00	13.9	17.0	11.1
07/03/00	13.7	16.8	11.4
07/04/00	12.8	15.9	10.0
07/05/00	13.0	16.4	10.3
07/06/00	13.5	17.2	10.6
07/07/00	13.3	17.2	10.1
07/08/00	13.6	17.6	10.3
07/09/00	14.2	18.3	10.8
07/10/00	15.0	19.1	11.7
07/11/00	15.7	19.7	12.5
07/12/00	16.1	20.5	12.9
07/13/00	15.6	20.5	12.1
07/14/00	15.7	20.7	11.8
07/15/00	16.2	21.0	12.6
07/16/00	16.0	20.4	13.2
07/17/00	15.9	21.4	12.1
07/18/00	15.8	21.5	11.7
07/19/00	15.7	21.5	11.5
07/20/00			
07/21/00			
07/22/00			
07/23/00			
07/24/00			
07/25/00			
07/26/00			
07/27/00			
07/28/00			
07/29/00			
07/30/00			
07/31/00			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
08/01/00			
08/02/00			
08/03/00			
08/04/00			
08/05/00			
08/06/00			
08/07/00			
08/08/00			
08/09/00			
08/10/00			
08/11/00			
08/12/00			
08/13/00			
08/14/00			
08/15/00	17.2	23.8	12.2
08/16/00	17.5	23.8	12.7
08/17/00	17.3	23.3	12.8
08/18/00	16.1	22.3	11.4
08/19/00	15.1	21.3	10.2
08/20/00	14.9	21.6	9.7
08/21/00	15.1	21.6	10.1
08/22/00	15.3	21.3	10.2
08/23/00	15.8	21.8	11.1
08/24/00	15.8	21.8	10.8
08/25/00	16.7	20.9	13.3
08/26/00	17.7	23.1	13.9
08/27/00	17.4	22.8	13.0
08/28/00	16.9	21.6	13.0
08/29/00	15.6	16.9	14.4
08/30/00	14.8	17.7	13.0
08/31/00	14.4	19.0	10.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
09/01/00	11.2	13.8	9.6
09/02/00	11.5	16.6	8.5
09/03/00	12.1	17.9	8.2
09/04/00	11.6	18.2	7.1
09/05/00	11.2	17.7	6.7
09/06/00	11.1	17.7	6.3
09/07/00	11.9	18.2	7.1
09/08/00	12.6	18.2	8.4
09/09/00	12.4	18.4	7.7
09/10/00	12.6	18.4	8.0
09/11/00	12.6	18.2	8.0
09/12/00	12.5	16.1	8.5
09/13/00	14.9	19.6	11.0
09/14/00	14.9	20.0	11.0
09/15/00	14.0	18.8	9.9
09/16/00	13.2	18.0	9.0
09/17/00	13.9	19.0	9.7
09/18/00	14.4	19.2	10.2
09/19/00	14.6	19.2	10.7
09/20/00	15.0	19.8	11.1
09/21/00	14.5	18.8	11.1
09/22/00	11.6	13.9	9.4
09/23/00	10.8	15.0	7.3
09/24/00	10.8	15.3	6.8
09/25/00	11.3	15.6	7.4
09/26/00	11.1	15.2	7.4
09/27/00	11.3	15.3	7.9
09/28/00	11.4	14.9	8.2
09/29/00	11.7	16.1	8.0
09/30/00	11.8	16.0	8.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2000

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
10/01/00	11.8	15.6	8.4
10/02/00	11.3	15.2	7.9
10/03/00	10.9	14.5	7.6
10/04/00	10.6	14.1	7.4
10/05/00	10.8	14.5	7.7
10/06/00	10.9	14.2	7.9
10/07/00	11.0	14.2	7.9
10/08/00	10.7	13.9	7.7
10/09/00	9.3	12.1	6.0
10/10/00	4.2	6.0	1.8
10/11/00	4.3	7.0	2.1
10/12/00	5.3	9.1	2.9
10/13/00	5.4	9.7	2.4
10/14/00	5.4	9.7	2.6
10/15/00	5.6	9.9	2.8
10/16/00	5.9	10.2	3.1
10/17/00	6.2	10.4	3.5
10/18/00	6.4	9.4	3.9
10/19/00	6.5	10.5	3.9
10/20/00	6.6	10.4	4.0
10/21/00	5.6	9.1	3.7
10/22/00	4.1	7.9	1.8
10/23/00	4.1	8.0	1.5
10/24/00	4.6	8.5	2.0
10/25/00	4.6	7.3	2.6
10/26/00			
10/27/00			
10/28/00			
10/29/00			
10/30/00			
10/31/00			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	2.3	4.7	1.1							7.0	10.9	4.2
05/02/01	2.0	4.1	0.9							5.6	8.4	3.9
05/03/01	1.9	4.4	0.4							4.3	7.5	2.0
05/04/01	2.4	5.2	0.6							5.2	8.5	2.6
05/05/01	2.9	5.8	1.2							6.5	9.9	4.0
05/06/01	3.0	6.1	1.4							7.4	11.2	4.8
05/07/01	3.2	6.3	1.7							8.1	12.0	5.6
05/08/01	3.5	6.7	1.7							7.6	11.0	5.3
05/09/01	3.7	7.0	1.7							7.8	10.9	5.3
05/10/01	4.0	7.5	1.9							8.1	11.3	5.4
05/11/01	4.3	7.5	2.2							8.5	11.3	6.4
05/12/01	3.6	5.0	2.5							8.2	9.3	7.0
05/13/01	3.8	5.3	2.3							8.4	11.3	6.1
05/14/01	4.9	8.1	2.0							8.5	11.7	5.6
05/15/01	5.5	8.3	3.0							9.1	11.5	6.5
05/16/01	6.1	9.2	3.4							10.3	12.9	7.9
05/17/01	6.5	9.8	3.4							10.4	13.2	7.8
05/18/01	6.5	9.2	3.6							9.7	12.1	7.0
05/19/01	7.1	10.3	3.9	6.4	6.7	6.1	8.4	11.2	6.1	10.3	13.1	7.6
05/20/01	8.2	11.2	5.0	6.5	7.0	6.1	8.9	11.7	6.4	10.7	13.5	7.9
05/21/01	9.2	12.1	5.9	6.5	7.0	6.1	9.5	12.3	7.0	11.7	14.5	8.9
05/22/01	9.4	11.4	6.7	6.6	7.0	6.2	10.0	12.5	7.8	12.3	14.6	9.9
05/23/01	10.1	13.1	7.3	6.7	7.2	6.2	10.3	12.8	8.0	12.4	15.1	9.9
05/24/01	10.5	12.8	8.0	6.8	7.2	6.4	10.4	12.8	8.1	12.4	14.8	9.9
05/25/01	11.0	13.5	8.6	6.9	7.3	6.5	10.2	12.5	8.1	11.8	14.1	9.9
05/26/01	10.8	12.8	8.6	7.0	7.3	6.5	9.7	11.8	7.7	10.8	12.7	9.0
05/27/01	10.6	12.9	8.3	7.1	7.5	6.7	9.6	11.8	7.5	10.7	12.9	8.7
05/28/01	10.7	12.8	8.4	7.3	7.6	6.8	9.6	11.5	7.7	10.5	12.4	8.9
05/29/01	11.6	14.1	8.9	7.4	7.8	6.8	9.9	12.3	7.7	11.2	13.8	9.0
05/30/01	12.5	14.9	10.0	7.5	7.8	7.2	10.7	12.9	8.4	12.3	14.9	10.1
05/31/01	13.5	16.0	10.7	7.6	8.1	7.2	11.3	13.4	9.0	13.3	15.7	11.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	13.5	15.7	11.2	7.7	8.2	7.3	11.4	13.1	9.5	13.2	15.4	11.2
06/02/01	12.4	14.6	10.4	7.9	8.4	7.5	10.5	12.1	8.9	11.4	13.1	9.8
06/03/01	10.9	13.4	8.1	8.0	8.5	7.6	9.4	11.2	7.3	9.4	11.5	7.5
06/04/01	11.1	13.5	8.4	8.2	8.7	7.8	9.6	11.5	7.7	10.0	12.1	8.1
06/05/01	11.6	14.1	8.9	8.2	8.7	7.8	9.8	11.7	8.0	10.2	12.1	8.4
06/06/01	12.8	15.9	9.8	8.3	8.9	7.9	10.5	12.6	8.4	11.5	14.0	9.5
06/07/01	13.3	16.2	10.6	8.4	8.9	8.1	11.0	12.9	8.7	12.2	14.6	9.9
06/08/01	13.1	16.0	10.3	8.5	9.2	8.2	10.9	12.8	8.7	11.7	14.1	9.3
06/09/01	13.3	16.3	10.4	8.7	9.3	8.4	10.8	12.6	8.7	11.5	13.5	9.6
06/10/01	13.5	16.7	10.7	8.8	9.3	8.4	10.9	12.6	9.0	11.5	13.4	9.6
06/11/01	13.0	16.0	10.4	8.9	9.5	8.5	10.5	12.0	8.6	10.9	12.6	9.2
06/12/01	13.1	16.3	10.3	9.0	9.5	8.5	10.5	11.8	8.7	11.3	13.4	9.3
06/13/01	12.4	15.6	9.7	9.1	9.6	8.5	10.1	11.8	8.0	10.2	12.3	7.9
06/14/01	12.8	16.3	9.8	9.2	9.8	8.9	10.4	12.3	8.3	10.8	12.9	8.7
06/15/01	13.5	17.5	10.1	9.3	9.8	9.0	10.8	12.8	8.7	11.4	13.7	9.2
06/16/01	14.2	18.1	10.7	9.4	9.9	9.0	11.2	12.9	9.0	11.9	14.1	9.5
06/17/01	14.5	18.4	11.4	9.5	9.9	9.2	11.4	13.1	9.4	12.2	14.1	10.1
06/18/01	14.4	18.9	10.9	9.6	10.1	9.2	11.2	13.1	9.0	11.6	13.8	9.3
06/19/01	14.7	19.4	11.1	9.6	10.1	9.3	11.3	13.2	9.2	11.8	14.0	9.6
06/20/01	15.4	20.4	11.7	9.7	10.1	9.5	11.8	13.5	9.8	12.6	14.8	10.6
06/21/01	16.3	21.3	12.4	9.8	10.2	9.5	12.3	14.2	10.3	13.5	15.7	11.3
06/22/01	17.0	22.2	13.2	9.9	10.4	9.6	12.7	14.3	10.9	14.2	16.0	12.4
06/23/01	16.9	22.5	13.4	10.0	10.4	9.6	12.6	14.3	10.9	13.9	15.7	12.3
06/24/01	15.8	20.9	12.4	10.1	10.6	9.6	11.9	13.2	10.3	12.3	13.7	11.0
06/25/01	15.0	21.0	10.9	10.2	10.6	9.8	11.2	12.8	9.4	11.0	12.7	9.2
06/26/01	15.4	20.7	12.0	10.3	10.7	9.9	11.8	13.5	10.3	12.1	14.1	10.6
06/27/01	16.0	22.0	12.6	10.3	10.7	9.9	12.1	13.7	10.8	12.8	14.3	11.7
06/28/01	16.0	22.7	11.4	10.4	10.9	10.1	11.8	13.7	9.7	12.2	14.4	10.1
06/29/01	16.8	23.5	12.0	10.4	10.9	10.2	12.4	14.2	10.4	13.4	15.6	11.2
06/30/01	17.5	24.6	12.8	10.5	11.0	10.2	12.7	14.5	10.6	13.7	15.7	11.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	18.1	25.1	13.2	10.6	11.0	10.2	12.9	14.6	11.1	14.2	16.2	12.1
07/02/01	19.0	26.3	14.1	10.6	11.2	10.4	13.5	15.3	11.5	15.0	17.1	13.1
07/03/01	19.5	26.5	15.1	10.6	11.0	10.4	14.0	15.7	12.5	16.0	17.6	14.3
07/04/01	17.8	20.9	16.3	10.6	10.9	10.4	14.0	14.6	13.4	16.5	17.5	15.6
07/05/01	18.0	23.3	14.8	10.7	11.2	10.4	14.1	15.7	12.5	16.1	17.8	14.6
07/06/01	15.9	17.0	14.6	10.8	11.0	10.6	13.6	14.3	13.2	15.7	16.2	15.4
07/07/01	14.3	14.8	13.8	10.8	10.9	10.7	13.2	13.5	12.8	15.4	16.2	14.8
07/08/01	14.8	18.6	12.8	10.8	11.3	10.6	13.4	14.8	12.1	15.5	17.0	14.0
07/09/01	15.4	19.9	12.1	10.9	11.5	10.7	13.6	15.3	11.8	15.2	17.1	13.2
07/10/01	14.6	17.1	12.3	10.9	11.3	10.7	13.6	15.3	12.1	15.1	17.0	13.4
07/11/01	15.8	21.0	12.1	11.0	11.5	10.9	13.4	15.1	12.0	14.7	16.3	13.2
07/12/01	16.2	22.5	12.1	11.1	11.6	10.9	12.9	14.5	11.1	13.6	15.4	11.7
07/13/01	15.7	20.7	12.0	11.1	11.6	10.9	12.5	14.0	10.8	13.1	14.8	11.2
07/14/01	16.1	23.0	11.7	11.2	11.6	10.9	12.6	14.3	10.9	13.1	14.8	11.3
07/15/01	15.9	23.0	11.4	11.2	11.6	11.0	12.3	14.0	10.4	12.3	14.1	10.3
07/16/01	15.8	23.0	11.1	11.3	11.6	11.0	12.2	13.8	10.4	12.2	14.0	10.3
07/17/01	16.0	23.5	11.1	11.3	11.8	11.0	12.4	14.0	10.6	12.5	14.4	10.6
07/18/01	16.5	24.0	11.5	11.4	11.8	11.2	12.5	14.2	10.9	12.9	14.8	11.2
07/19/01	16.3	23.7	11.2	11.4	11.8	11.2	12.4	14.0	10.6	12.5	14.3	10.4
07/20/01	16.5	24.4	11.4	11.5	11.9	11.3	12.5	14.2	10.8	12.7	14.6	10.9
07/21/01	16.7	24.7	11.4	11.5	12.1	11.3	12.5	14.2	10.8	12.8	14.4	11.0
07/22/01	16.6	24.7	10.9	11.6	11.9	11.3	12.3	14.0	10.4	12.4	14.3	10.4
07/23/01	16.8	24.7	11.4	11.6	11.9	11.3	12.5	14.2	10.8	12.6	14.4	10.9
07/24/01	17.6	25.4	11.8	11.6	12.1	11.3	12.9	14.6	11.1	13.4	15.2	11.5
07/25/01	18.4	26.1	12.6	11.6	12.3	11.5	13.4	14.9	11.5	14.2	15.9	12.3
07/26/01	19.4	27.3	13.7	11.7	12.3	11.5	14.0	15.7	12.3	15.5	17.3	13.8
07/27/01	19.0	26.5	13.4	11.7	12.3	11.5	13.6	15.1	11.8	14.2	15.7	12.4
07/28/01	18.6	26.5	12.8	11.8	12.4	11.6	13.3	14.9	11.5	13.4	15.1	11.7
07/29/01	18.1	26.5	12.4	11.8	12.4	11.6	13.1	14.9	11.4	13.1	14.9	11.2
07/30/01	17.6	25.4	12.1	11.9	12.4	11.6	12.9	14.5	11.4	12.9	14.4	11.3
07/31/01	18.0	26.3	12.0	12.0	12.4	11.8	13.2	14.9	11.4	13.7	15.7	11.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	18.5	26.6	12.8	12.1	12.7	11.8	13.4	15.1	11.7	14.1	16.0	12.3
08/02/01	19.0	27.2	13.4	12.1	12.6	11.9	13.7	15.4	12.0	14.7	16.3	13.1
08/03/01	18.9	27.2	13.8	12.2	12.7	11.9	13.8	15.4	12.3	14.8	16.3	13.5
08/04/01	17.1	28.8	11.8	12.2	12.7	12.1	13.2	14.8	11.4	13.5	15.1	11.7
08/05/01	17.7	36.8	8.7	12.3	12.9	12.1	12.9	14.6	10.9	12.9	14.9	10.9
08/06/01	19.3	37.9	11.4	12.4	13.0	12.1	13.7	15.4	11.5	13.7	16.0	11.3
08/07/01	20.9	38.1	13.7	12.4	13.2	12.3	15.1	16.5	13.5	15.6	17.8	13.8
08/08/01	21.0	37.9	14.3	12.6	13.2	12.3	15.3	16.7	13.8	16.0	17.8	14.6
08/09/01	20.3	37.7	13.7	12.7	13.2	12.4	15.0	16.4	13.5	15.4	17.1	13.8
08/10/01	19.9	38.1	12.8	12.7	13.3	12.4	14.9	16.4	13.4	15.3	17.1	13.8
08/11/01	19.5	38.1	11.7	12.7	13.3	12.6	14.6	16.0	12.9	14.7	16.7	12.6
08/12/01	19.0	38.1	11.2	12.8	13.5	12.6	14.5	15.9	12.9	14.3	16.0	12.3
08/13/01	18.5	37.3	11.1	12.9	13.6	12.7	14.4	15.9	12.8	14.2	16.0	12.4
08/14/01	18.7	38.1	11.4	13.0	13.6	12.7	14.4	15.9	12.8	14.2	16.0	12.4
08/15/01	18.6	37.7	10.9	13.0	13.6	12.9	14.3	15.7	12.8	14.0	15.9	12.4
08/16/01	18.6	38.1	10.6	13.1	13.6	12.9	14.3	15.7	12.8	13.9	15.6	12.0
08/17/01	18.8	38.1	11.4	13.2	13.9	13.0	14.4	15.7	12.8	14.0	15.7	12.3
08/18/01	18.9	38.1	11.5	13.3	13.9	13.0	14.8	16.2	13.2	14.8	16.7	13.1
08/19/01	18.1	38.1	10.7	13.2	13.8	13.0	14.6	15.9	13.1	14.4	16.2	12.7
08/20/01	16.7	36.4	9.8	13.3	13.9	13.0	14.2	15.6	12.8	13.6	15.2	12.1
08/21/01	15.4	34.4	8.9	13.4	13.9	13.2	13.6	14.9	12.3	12.7	14.0	11.3
08/22/01	14.7	32.2	8.0	13.4	13.9	13.2	13.3	14.6	11.8	12.3	14.0	10.7
08/23/01	14.3	34.8	6.3	13.4	13.9	13.3	13.1	14.5	11.4	12.1	14.0	10.1
08/24/01	14.8	33.5	7.0	13.5	14.1	13.3	13.2	14.6	11.5	12.4	14.4	10.1
08/25/01	16.7	37.3	9.3	13.6	14.1	13.3	13.8	15.3	12.1	13.6	15.6	11.5
08/26/01	17.6	37.9	10.7	13.7	14.3	13.5	14.3	15.7	12.6	14.1	16.0	12.3
08/27/01	17.7	37.7	10.6	13.7	14.3	13.5	14.4	15.7	12.9	14.4	16.0	12.6
08/28/01	18.0	38.1	10.6	13.8	14.3	13.5	14.5	15.9	12.8	14.3	16.3	12.3
08/29/01	17.3	37.3	10.4	13.9	14.4	13.6	14.5	15.7	12.9	14.5	16.2	12.7
08/30/01	16.1	34.6	10.1	13.9	14.6	13.6	14.1	15.4	12.8	13.9	15.2	12.4
08/31/01	15.5	34.8	8.6	14.0	14.6	13.8	13.8	15.1	12.1	13.3	15.2	11.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	15.3	35.6	8.7	14.1	14.6	13.8	13.7	14.9	12.1	13.2	14.9	11.2
09/02/01	16.0	35.8	9.5	14.1	14.6	13.9	14.0	15.3	12.5	13.5	15.6	11.7
09/03/01	14.3	22.7	11.1	14.2	14.7	13.9	14.3	15.1	13.2	14.2	15.2	13.1
09/04/01	15.8	36.8	9.3	14.2	14.7	13.9	14.1	15.4	12.8	14.0	15.9	12.1
09/05/01	15.6	34.6	10.1	14.3	14.9	14.1	14.1	15.4	12.9	14.1	15.7	12.9
09/06/01	14.2	37.3	7.0	14.4	14.7	14.1	13.2	14.3	11.8	12.2	13.7	10.6
09/07/01	14.7	37.9	7.7	14.5	14.9	14.3	13.3	14.6	11.8	12.4	14.0	10.9
09/08/01	14.7	37.3	7.8	14.6	14.9	14.3	13.3	14.5	11.7	12.2	14.0	10.4
09/09/01	14.9	38.1	8.1	14.6	15.0	14.4	13.3	14.5	11.8	12.1	13.8	10.4
09/10/01	14.5	32.8	7.7	14.8	15.2	14.6	13.3	14.5	11.8	12.2	14.1	10.3
09/11/01	14.5	24.9	10.3	14.8	15.0	14.6	13.7	14.5	12.9	13.0	14.1	12.1
09/12/01	13.2	35.4	6.4	14.9	15.2	14.6	13.2	14.2	11.8	12.3	13.8	10.6
09/13/01	12.0	36.0	4.7	14.9	15.2	14.6	12.6	13.7	10.9	11.4	13.4	9.2
09/14/01	10.2	12.9	7.6	14.9	15.0	14.7	12.6	13.7	10.9	11.3	13.2	9.2
09/15/01	10.1	12.4	7.6	14.9	15.2	14.7	12.5	13.5	11.1	11.2	12.7	9.3
09/16/01	10.1	12.4	7.9	15.0	15.2	14.7	12.5	13.5	11.1	11.4	13.1	9.6
09/17/01	10.4	13.0	7.9	14.9	15.2	14.7	12.6	13.7	11.2	11.7	13.4	10.1
09/18/01	10.9	13.5	8.5	14.9	15.2	14.7	12.9	13.8	11.5	12.2	14.0	10.6
09/19/01	11.1	13.2	8.8	15.0	15.2	14.7	12.9	13.8	11.5	12.3	13.8	10.6
09/20/01	11.3	13.5	9.3	15.1	15.4	14.9	13.0	14.0	11.7	12.7	14.1	11.2
09/21/01	11.0	13.2	8.7	15.1	15.4	14.9	12.7	13.7	11.4	12.2	13.7	10.6
09/22/01	10.9	13.0	8.7	15.1	15.4	14.9	12.7	13.7	11.4	12.2	13.7	10.7
09/23/01	10.9	13.0	8.7	15.2	15.5	15.0	12.6	13.5	11.4	11.7	12.9	10.4
09/24/01	10.1	12.2	7.7	15.3	15.5	15.0	12.3	13.4	10.9	11.2	12.7	9.5
09/25/01	11.6	13.2	10.4	15.4	15.7	15.2	13.4	14.5	12.8	12.9	14.6	11.8
09/26/01	9.9	12.1	7.6	15.6	15.7	15.4	11.9	12.8	10.6	11.7	13.2	10.1
09/27/01	9.5	11.5	7.4	15.7	15.8	15.5	11.8	12.9	10.4	11.4	12.7	9.9
09/28/01	8.7	10.8	6.5	15.7	15.8	15.5	11.4	12.5	10.1	10.8	12.0	9.5
09/29/01	9.1	11.5	7.0	15.6	15.7	15.5	11.5	12.5	10.1	10.9	12.3	9.6
09/30/01	9.8	12.1	7.6	15.6	15.7	15.5	11.8	12.8	10.4	11.2	12.6	9.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake			Big Creek downstream of Dam 1			Big Creek Canyon			Big Creek upstream Powerhouse 1		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	10.6	12.7	8.7	15.6	15.7	15.5	12.3	13.1	11.1	11.7	12.7	10.7
10/02/01	10.6	12.2	8.7	15.7	15.8	15.5	12.5	13.4	11.4	12.0	13.4	10.7
10/03/01	10.3	11.8	8.5	15.6	15.7	15.5	12.5	13.2	11.4	12.3	13.4	11.0
10/04/01	10.1	11.5	8.4	15.6	15.8	15.5	12.3	13.1	11.2	12.2	13.2	11.0
10/05/01	9.8	11.3	8.4	15.6	15.7	15.5	12.0	12.8	11.2	11.6	12.6	10.7
10/06/01	8.4	10.2	6.5	15.6	15.8	15.5	11.0	11.7	10.0	10.4	11.5	9.2
10/07/01	7.7	9.7	5.6	15.6	15.8	15.5	10.6	11.4	9.4	9.8	11.0	8.4
10/08/01	8.5	10.7	6.5	15.7	15.8	15.5	11.0	11.7	10.0	10.2	11.0	9.2
10/09/01	7.1	8.8	5.0	15.6	15.8	15.5	10.5	11.2	9.4	9.7	10.6	8.1
10/10/01	6.7	8.8	4.6	15.5	15.7	15.5	10.1	10.8	8.9	9.1	10.3	7.8
10/11/01	7.4	9.6	5.4	15.5	15.7	15.4	10.4	11.1	9.4	9.3	9.9	8.4
10/12/01	6.8	9.0	5.0	15.4	15.5	15.2	10.3	10.9	9.0	9.2	10.4	7.9
10/13/01	6.4	8.5	4.3	15.2	15.4	15.2	10.0	10.6	8.7	9.1	10.3	7.6
10/14/01	6.6	8.7	4.6	15.1	15.2	15.0	10.0	10.9	8.7	9.0	10.3	7.6
10/15/01	7.1	9.0	5.4							9.3	10.4	8.2
10/16/01	7.3	9.1	5.6							9.2	10.1	8.1
10/17/01	7.0	8.4	5.4							9.1	9.9	8.1
10/18/01	6.3	8.1	4.6							8.9	10.3	7.6
10/19/01	6.8	8.5	5.1							9.1	9.9	8.1
10/20/01	6.7	8.1	5.0							9.0	9.8	7.9
10/21/01	6.3	7.6	4.8							8.9	9.9	7.8
10/22/01	5.5	7.0	4.2							8.5	9.3	7.5
10/23/01	5.6	7.1	4.3							8.8	9.8	7.8
10/24/01	5.5	7.4	4.2							8.0	9.2	6.9
10/25/01										8.0	9.2	6.9
10/26/01										8.2	9.2	7.2
10/27/01										7.9	8.7	7.0
10/28/01										7.9	8.9	6.9
10/29/01										7.8	8.6	7.0
10/30/01										8.8	9.2	7.6
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	11.5	13.2	10.1	12.4	14.9	10.4	11.8	13.3	9.6	7.7	8.2	7.1
05/02/01	11.3	12.6	10.4	11.9	13.7	10.6	11.3	12.7	10.1	7.0	7.3	6.3
05/03/01	10.6	12.1	9.3	10.0	12.3	8.1	8.9	10.2	7.1	6.5	7.1	5.9
05/04/01	10.6	12.4	9.3	10.3	12.9	8.3	9.4	11.3	7.6	6.7	7.3	6.2
05/05/01	11.3	13.0	9.8	11.5	14.0	9.5	10.8	12.9	8.8	6.8	7.6	6.2
05/06/01	11.9	13.6	10.4	12.6	15.2	10.6	12.2	14.2	10.2	7.2	7.9	6.7
05/07/01	12.7	14.6	11.2	13.7	16.3	11.5	13.4	15.5	11.5	7.3	8.1	6.7
05/08/01	12.9	14.9	11.3	14.2	16.6	12.3	13.8	15.5	11.9	7.3	8.1	6.7
05/09/01	13.2	15.0	11.6	14.2	16.5	12.3	13.9	15.8	12.1	7.4	8.4	6.7
05/10/01	13.4	15.0	11.8	14.2	16.5	12.1	14.0	16.0	12.1	7.5	8.5	6.7
05/11/01	13.8	16.5	12.2	14.6	17.0	12.4	14.5	16.8	12.7	7.6	8.7	7.0
05/12/01	13.1	13.6	12.7	13.7	14.4	12.9	13.7	14.4	13.2	7.3	7.9	7.0
05/13/01	13.2	14.9	11.9	13.9	16.0	12.0	13.8	16.0	11.9	7.3	8.4	6.8
05/14/01	13.5	15.2	12.1	14.1	16.3	12.1	14.2	16.5	12.1	7.5	8.7	6.7
05/15/01	13.7	15.0	12.6	14.3	16.2	12.6	14.2	15.8	12.6	7.6	8.5	6.8
05/16/01	14.4	16.0	12.9	15.1	17.4	13.2	15.3	17.7	13.2	7.9	9.0	7.1
05/17/01	14.7	16.3	13.3	15.6	17.8	13.5	16.0	18.2	13.8	7.9	9.0	7.1
05/18/01	14.5	16.2	13.2	15.1	16.8	13.2	15.6	17.7	13.5	7.8	8.8	7.1
05/19/01	14.7	16.5	13.2	15.5	17.9	13.0	15.6	18.4	13.2	7.9	9.0	7.1
05/20/01	15.2	17.1	13.5	16.0	18.4	13.5	15.8	18.0	13.3	8.1	9.3	7.1
05/21/01	15.7	17.6	13.9	16.8	19.2	14.3	16.3	18.5	13.9	8.3	9.3	7.4
05/22/01	16.1	17.9	14.4	17.5	19.7	15.2	17.0	19.2	14.7	8.4	9.4	7.6
05/23/01	16.3	18.2	14.7	17.9	20.0	15.5	17.4	19.7	15.2	8.4	9.6	7.4
05/24/01	11.6	16.3	7.6	14.4	19.7	9.0	17.8	20.3	14.6	8.3	9.3	7.4
05/25/01	8.3	10.7	7.3	10.2	13.7	8.3	13.3	15.5	10.9	8.3	9.4	7.7
05/26/01	7.7	8.4	7.3	9.1	10.7	8.1	13.0	14.6	10.7	8.1	9.1	7.4
05/27/01	8.0	10.2	7.3	9.4	12.6	7.9	12.5	14.7	10.4	8.2	9.3	7.4
05/28/01	7.7	8.2	7.4	8.9	10.4	8.1	12.0	14.1	9.8	8.2	9.1	7.6
05/29/01	7.7	8.2	7.4	8.7	9.9	7.9	11.6	13.8	9.8	8.5	9.4	7.7
05/30/01	8.0	8.5	7.6	9.0	10.4	8.1	11.7	14.6	9.5	8.7	9.9	7.9
05/31/01	8.2	9.1	7.9	9.3	11.0	8.4	12.3	15.0	10.2	8.9	9.9	8.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	8.2	8.8	7.8	9.4	11.0	8.4	12.6	15.2	10.7	8.9	9.9	8.2
06/02/01	8.0	8.4	7.6	8.8	10.1	7.9	11.3	13.6	9.8	8.6	9.6	8.1
06/03/01	7.9	8.4	7.6	8.5	9.9	7.6	10.4	12.9	8.5	8.4	9.3	7.7
06/04/01	8.1	8.5	7.9	8.8	10.1	8.1	10.8	13.3	9.0	8.6	9.6	7.9
06/05/01	9.7	11.8	8.1	10.8	14.0	8.3	12.0	14.9	9.3	8.6	9.4	8.1
06/06/01	11.5	13.6	9.8	13.9	16.6	11.7	15.1	17.7	12.4	8.9	9.9	8.2
06/07/01	12.7	14.7	11.0	15.8	18.2	13.7	17.0	19.3	14.2	9.1	10.2	8.4
06/08/01	13.2	15.2	11.6	16.5	18.9	14.4	17.3	19.3	14.1	9.0	10.2	8.2
06/09/01	13.5	15.2	11.9	16.9	19.0	14.7	17.6	19.2	15.5	9.1	10.1	8.4
06/10/01	13.8	15.5	12.4	17.0	19.2	15.1	17.7	19.2	15.5	9.1	10.1	8.5
06/11/01	13.8	15.2	12.6	16.6	18.6	14.7	17.3	18.7	15.2	9.1	10.1	8.5
06/12/01	14.0	15.8	12.7	16.8	18.9	14.9	17.4	19.2	15.2	9.4	10.4	8.7
06/13/01	13.7	15.4	12.2	16.4	18.4	14.3	16.5	18.0	13.3	9.2	10.2	8.4
06/14/01	14.0	15.8	12.6	16.7	19.0	14.4	16.2	18.4	12.9	9.4	10.5	8.7
06/15/01	14.4	16.3	12.9	17.3	19.7	14.9	16.7	19.0	13.2	9.6	10.7	8.8
06/16/01	14.8	16.8	13.2	18.0	20.3	15.5	17.1	19.3	13.8	9.8	10.8	9.0
06/17/01	15.1	16.9	13.5	18.4	20.7	16.2	17.6	19.7	14.1	9.9	11.0	9.1
06/18/01	15.1	16.9	13.5	18.4	20.7	16.0	17.5	19.5	13.9	9.9	11.0	9.1
06/19/01	15.3	17.1	13.6	18.5	20.8	16.2	17.5	19.7	13.9	10.0	11.0	9.1
06/20/01	15.7	17.6	14.1	19.0	21.2	16.6	18.0	20.0	14.6	10.2	11.2	9.4
06/21/01	16.2	18.2	14.6	19.7	22.0	17.3	18.4	20.5	14.9	10.5	11.5	9.9
06/22/01	16.7	18.6	15.2	20.3	22.5	18.2	18.8	20.8	15.5	10.6	11.6	9.9
06/23/01	16.8	18.7	15.5	20.4	22.3	18.4	18.9	20.8	15.7	10.6	11.6	9.9
06/24/01	16.3	17.6	15.4	19.4	21.0	17.8	18.1	19.8	15.2	10.5	11.3	9.8
06/25/01	15.7	17.1	14.6	18.4	20.2	16.3	17.1	18.9	14.1	10.4	11.2	9.8
06/26/01	16.2	17.7	14.9	18.7	20.8	16.6	17.4	19.1	14.8	10.7	11.6	9.9
06/27/01	16.4	17.9	15.4	19.0	21.2	17.1	17.3	18.7	14.8	10.7	11.6	10.1
06/28/01	16.4	17.9	15.0	19.0	21.2	16.6	17.0	19.1	14.0	10.7	11.6	9.9
06/29/01	16.8	18.6	15.2	19.5	21.7	17.1	17.4	19.7	14.3	11.0	12.1	10.2
06/30/01	17.1	18.9	15.5	20.1	22.3	17.6	17.8	20.0	14.8	11.1	12.2	10.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	17.4	19.0	15.8	20.6	22.8	18.4	18.3	20.5	15.2	11.3	12.4	10.7
07/02/01	17.9	20.3	16.3	21.3	23.7	18.9	18.8	21.0	15.7	11.5	12.7	10.7
07/03/01	18.5	21.0	17.1	22.1	24.2	20.0	19.6	21.8	16.5	11.7	12.9	11.0
07/04/01	18.3	19.4	17.7	22.1	23.2	21.2	19.6	21.8	17.8	11.8	12.7	11.2
07/05/01	18.6	20.5	17.3	22.2	24.2	20.3	19.6	21.0	17.1	11.8	12.9	11.2
07/06/01	17.6	18.7	16.9	20.8	22.2	19.9	18.7	21.2	17.4	11.6	12.1	11.2
07/07/01	16.8	17.3	16.5	19.6	20.5	18.7	18.9	20.5	17.3	11.9	12.7	11.3
07/08/01	17.3	19.0	16.0	20.4	22.2	18.6	19.0	21.0	16.6	11.8	12.6	11.3
07/09/01	17.6	19.5	16.2	21.0	23.2	18.9	19.9	21.8	17.1	11.6	12.6	11.0
07/10/01	17.7	19.2	16.5	21.1	23.0	19.4	19.6	21.2	17.1	11.6	12.6	10.8
07/11/01	17.5	19.0	16.5	21.0	23.0	19.2	19.3	20.8	16.8	11.6	12.6	11.2
07/12/01	17.2	18.7	15.8	20.4	22.3	18.4	18.5	20.4	15.5	11.6	12.6	11.0
07/13/01	16.7	17.9	15.7	19.9	21.7	17.9	17.7	19.5	15.1	11.6	12.7	11.0
07/14/01	16.7	18.4	15.5	19.9	21.8	17.9	17.4	19.1	15.2	11.6	12.6	11.0
07/15/01	16.4	18.1	15.0	19.5	21.3	17.4	16.7	18.6	14.4	11.6	12.6	11.0
07/16/01	16.4	17.7	15.2	19.2	21.0	17.3	16.8	18.7	14.4	11.6	12.4	11.2
07/17/01	16.3	17.7	15.0	19.1	21.0	17.1	17.0	19.1	14.6	11.7	12.6	11.2
07/18/01	16.4	17.9	15.0	19.2	21.2	17.3	17.1	18.9	14.6	11.7	12.7	11.0
07/19/01	16.3	17.9	15.0	19.2	21.0	17.1	17.3	18.7	14.8	11.7	12.9	11.0
07/20/01	16.4	18.1	15.0	19.3	21.3	17.3	17.2	18.6	14.8	11.8	12.7	11.2
07/21/01	16.5	18.1	15.2	19.3	21.3	17.4	17.3	18.4	14.9	11.8	12.9	11.2
07/22/01	16.5	18.1	15.2	19.2	21.2	17.1	16.7	18.1	14.4	11.8	12.9	11.2
07/23/01	16.6	18.4	15.2	19.3	21.3	17.3	17.2	19.1	14.6	11.9	12.9	11.2
07/24/01	16.9	18.6	15.5	19.8	21.8	17.6	17.9	19.5	15.1	12.1	13.2	11.5
07/25/01	17.4	19.0	15.8	20.4	22.3	18.4	18.5	20.2	15.7	12.2	13.3	11.5
07/26/01	17.9	19.7	16.5	21.2	23.2	19.2	19.2	20.8	16.5	12.5	13.8	11.8
07/27/01	17.7	19.4	16.3	21.2	23.0	19.0	18.9	20.5	15.9	12.3	13.3	11.5
07/28/01	17.5	19.0	16.2	20.9	22.8	18.9	18.3	19.7	15.7	12.2	13.5	11.5
07/29/01	17.3	19.0	15.8	20.5	22.3	18.6	17.7	18.9	15.4	12.2	13.5	11.5
07/30/01	17.0	18.2	15.8	20.1	21.7	18.2	17.5	19.1	15.1	12.1	13.2	11.5
07/31/01	17.1	18.7	15.8	20.0	21.8	18.1	18.0	19.7	15.4	12.4	13.5	11.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	17.4	19.0	16.0	20.3	22.2	18.2	18.8	20.5	16.2	12.4	13.5	11.8
08/02/01	17.6	19.4	16.3	20.8	22.7	18.9	19.5	21.0	17.1	12.6	13.6	11.9
08/03/01	17.7	19.2	16.6	21.0	22.7	19.4	19.8	21.0	17.8	12.6	13.6	12.1
08/04/01	17.3	18.7	16.2	20.4	22.0	18.6	18.3	19.9	15.9	12.6	13.6	11.9
08/05/01	17.1	18.6	15.8	20.0	21.7	17.9	17.8	19.4	15.1	12.6	13.8	11.9
08/06/01	17.2	18.7	15.8	20.3	22.2	18.4	18.4	20.5	15.4	12.7	13.8	11.8
08/07/01	17.9	19.7	16.5	21.4	23.2	19.5	19.8	21.5	17.1	13.1	14.1	12.4
08/08/01	18.2	19.8	16.9	22.0	23.7	20.3	20.3	21.7	17.8	13.2	14.1	12.6
08/09/01	18.2	19.7	16.9	21.8	23.3	20.2	20.7	21.3	20.0	13.0	13.9	12.4
08/10/01	18.1	19.4	17.1	21.6	23.0	20.0	19.3	20.2	17.1	13.2	14.3	12.6
08/11/01	17.9	19.4	16.6	21.2	22.7	19.5	18.7	20.2	16.0	13.1	14.3	12.4
08/12/01	17.6	19.0	16.6	21.0	22.5	19.4	18.7	20.0	16.3	13.2	14.1	12.7
08/13/01	17.4	18.9	16.3	20.8	22.2	19.2	18.6	20.4	16.0	13.2	14.1	12.6
08/14/01	17.2	18.7	16.0	20.6	22.0	19.0	19.2	20.8	16.6	13.2	14.1	12.7
08/15/01	16.9	18.4	15.8	20.4	21.7	19.0	19.3	20.0	18.1	13.2	14.1	12.6
08/16/01	16.9	18.4	15.7	20.3	21.7	18.7	18.5	20.0	15.9	13.4	14.3	12.9
08/17/01	16.9	18.2	15.7	20.3	21.5	18.9	19.6	21.0	18.6	13.5	14.4	12.9
08/18/01	16.9	18.2	15.8	20.4	21.7	19.0	17.8	19.5	16.2	13.8	14.6	13.2
08/19/01	16.9	18.4	15.8	20.3	21.5	19.0	17.3	19.1	15.9	13.9	14.9	13.2
08/20/01	16.8	18.2	15.8	19.8	20.8	18.6	17.2	18.6	15.5	13.5	14.6	12.9
08/21/01	16.3	17.4	15.5	18.9	19.9	17.9	16.8	18.1	15.1	13.3	13.9	13.0
08/22/01	15.8	16.8	14.9	18.1	19.2	17.1	16.9	18.1	15.2	13.4	14.1	13.0
08/23/01	15.5	16.6	14.4	17.7	18.9	16.5	17.1	18.2	15.2	13.6	14.3	13.0
08/24/01	15.4	16.8	14.3	17.7	19.0	16.3	17.3	18.7	15.2	13.8	14.6	13.3
08/25/01	15.9	17.4	14.7	18.2	19.7	16.6	17.3	18.4	15.1	14.1	14.9	13.6
08/26/01	16.3	17.7	15.0	19.0	20.3	17.6	17.9	19.4	15.7	14.3	15.0	13.6
08/27/01	16.5	17.9	15.4	19.4	20.7	18.1	18.0	19.5	15.9	14.3	15.2	13.9
08/28/01	16.7	18.1	15.5	19.5	20.7	18.2	18.8	20.0	17.0	14.5	15.2	13.9
08/29/01	16.8	18.1	15.7	19.6	20.7	18.4	19.0	19.7	17.8	14.5	15.4	14.1
08/30/01	16.5	17.7	15.7	19.2	20.0	18.2	18.2	19.2	16.3	14.5	15.2	14.1
08/31/01	16.3	17.6	15.2	18.5	19.5	17.3	17.5	19.1	15.2	14.6	15.2	13.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	16.1	17.4	15.0	18.3	19.4	17.1	16.8	18.1	15.5	14.7	15.5	13.9
09/02/01	16.2	17.6	15.0	18.5	19.5	17.3	17.0	18.7	15.1	14.5	15.4	13.9
09/03/01	16.3	17.1	15.5	18.9	19.9	17.9	17.7	18.9	15.9	14.4	15.2	13.8
09/04/01	16.3	17.6	15.4	18.8	19.9	17.8	18.0	19.5	15.9	14.7	15.5	13.9
09/05/01	16.3	17.6	15.5	18.7	19.4	17.8	18.3	19.5	16.5	14.8	15.7	14.3
09/06/01	15.7	16.8	14.7	17.7	18.6	16.8	17.1	18.1	15.1	14.8	15.4	14.4
09/07/01	15.6	16.8	14.7	17.3	18.4	16.3	16.9	18.2	15.1	14.8	15.5	14.1
09/08/01	15.5	16.8	14.6	17.2	18.2	16.0	16.9	17.8	15.7	15.0	15.7	14.6
09/09/01	15.4	16.8	14.4	17.1	18.2	16.2	16.6	18.2	15.2	15.1	15.8	14.6
09/10/01	15.4	16.8	14.4	17.1	18.2	15.9	16.2	18.1	14.8	15.3	15.8	14.6
09/11/01	15.5	16.0	15.2	17.2	17.8	16.6	16.4	17.6	15.5	15.5	15.8	15.0
09/12/01	15.2	16.3	14.4	16.6	17.6	15.5	15.9	17.4	14.6	15.4	16.2	14.9
09/13/01	14.8	16.0	13.9	15.9	17.0	14.9	15.6	16.8	14.3	15.1	15.8	14.6
09/14/01	14.7	16.0	13.8	15.7	16.8	14.6	15.2	16.6	13.4	14.8	15.8	13.6
09/15/01	14.7	16.0	13.8	15.7	16.6	14.7	15.4	16.5	13.7	15.1	15.8	14.3
09/16/01	14.7	15.8	13.8	15.6	16.6	14.6	15.1	16.2	13.8	15.6	16.2	15.2
09/17/01	14.8	16.0	13.9	15.6	16.8	14.6	15.0	16.3	13.7	15.5	16.0	15.0
09/18/01	15.0	16.2	14.3	15.8	17.0	14.7	15.4	16.8	13.8	15.7	16.2	15.0
09/19/01	15.1	16.3	14.3	16.0	17.1	15.1	15.7	16.8	14.1	15.8	16.3	15.4
09/20/01	15.3	16.5	14.4	16.2	17.3	15.2	15.9	17.1	14.4	16.0	16.5	15.5
09/21/01	15.2	16.3	14.4	16.1	17.1	15.2	15.6	16.8	14.1	16.0	16.5	15.7
09/22/01	15.2	16.3	14.4	16.1	17.1	15.2	15.7	16.8	14.3	16.1	16.6	15.7
09/23/01	15.0	15.8	14.3	16.0	16.6	15.2	15.4	16.3	14.1	16.0	16.5	15.5
09/24/01	14.8	16.0	13.9	15.6	16.6	14.7	15.0	16.3	13.4	15.9	16.5	15.4
09/25/01	15.2	16.5	14.6	16.0	17.0	15.4	15.9	17.0	14.9	16.4	16.8	16.0
09/26/01	15.0	16.0	14.3	15.2	16.0	14.4	14.9	15.9	13.4	16.1	16.6	15.5
09/27/01	14.9	16.0	14.1	14.9	16.0	14.1	14.6	15.9	13.2	16.2	16.8	15.5
09/28/01	14.6	15.7	13.9	14.7	15.5	14.0	14.5	15.4	13.7	16.1	16.6	15.7
09/29/01	14.6	15.7	13.9	14.3	15.4	13.5	14.1	15.2	12.7	16.2	16.6	15.8
09/30/01	14.8	16.2	13.9	14.8	16.0	13.8	14.3	15.7	12.9	16.3	16.8	15.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

	Big Creek downstream of Dam 4			Big Creek upstream of Balsam Creek			Big Creek upstream Powerhouse 2			Big Creek downstream of Dam 5		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	14.9	15.8	14.3	15.4	16.5	14.6	15.1	16.5	13.8	16.6	17.3	16.0
10/02/01	15.1	16.2	14.4	15.5	16.3	14.7	15.2	16.5	14.0	16.6	17.1	16.0
10/03/01	15.2	16.2	14.4	15.6	16.5	14.9	15.3	16.5	14.1	16.7	17.3	16.2
10/04/01	15.2	16.2	14.6	15.5	16.3	14.7	15.2	16.2	14.3	16.7	17.3	16.3
10/05/01	15.0	15.7	14.6	15.1	15.7	14.7	15.0	15.9	14.3	16.6	16.9	16.3
10/06/01	14.4	15.0	13.9	14.0	14.9	13.4	13.9	14.8	12.9	16.4	16.8	15.8
10/07/01	14.0	14.9	13.5	13.4	14.1	12.7	13.4	14.3	12.3	16.3	16.9	15.5
10/08/01	14.0	14.7	13.5	13.4	14.1	12.7	13.6	14.6	12.6	15.9	16.5	14.9
10/09/01	13.7	14.3	13.2	13.1	13.8	12.4	13.3	14.1	12.4	15.7	16.0	15.2
10/10/01	13.4	14.3	12.9	12.5	13.4	11.8	12.9	13.8	11.8	15.5	15.7	15.2
10/11/01	13.5	14.1	12.9	12.7	13.4	12.1	13.0	14.0	12.1	15.6	16.0	15.2
10/12/01	13.3	14.1	12.7	12.5	13.4	11.8	12.8	13.7	12.0	15.4	15.7	14.9
10/13/01	13.4	14.3	12.7	12.2	13.2	11.5	12.7	13.7	11.8	15.3	15.7	14.9
10/14/01	13.4	14.3	12.9	12.3	13.2	11.5	12.7	13.7	11.8	15.3	15.7	14.7
10/15/01	13.5	14.3	13.0	12.5	13.5	11.8	12.9	14.0	12.0	15.3	15.7	14.9
10/16/01	13.5	14.1	13.0	12.6	13.5	12.1	12.9	14.0	12.1	15.3	15.7	14.9
10/17/01	13.3	13.8	13.0	12.5	13.0	12.0	12.8	13.5	12.1	15.1	15.5	14.9
10/18/01	13.1	13.8	12.6	12.1	13.0	11.5	12.6	13.4	11.7	15.0	15.4	14.6
10/19/01	13.2	13.8	12.7	12.1	12.9	11.5	12.6	13.4	11.7	15.0	15.4	14.7
10/20/01	13.1	13.6	12.7	12.2	12.9	11.7	12.6	13.4	11.8	14.9	15.2	14.6
10/21/01	13.0	13.5	12.6	12.0	12.6	11.3	12.4	13.0	11.7	14.7	15.0	14.4
10/22/01	12.6	13.2	12.2	11.5	12.3	11.0	11.9	12.6	11.2	14.6	14.9	14.3
10/23/01	12.8	13.3	12.4	11.3	12.1	10.7	11.8	12.6	11.2	14.7	14.9	14.6
10/24/01	12.6	13.0	12.2	10.9	11.7	10.3	11.5	12.1	10.6	14.4	14.9	13.9
10/25/01	12.4	13.0	11.9	10.9	11.7	10.4	11.3	12.1	10.6	14.3	14.7	13.9
10/26/01	12.4	13.0	12.1	11.0	11.7	10.4	11.3	12.1	10.7	14.3	14.6	14.1
10/27/01	12.4	13.0	12.1	10.9	11.5	10.4	11.5	12.3	10.7	14.2	14.6	13.9
10/28/01	12.2	12.7	11.9	10.8	11.5	10.4	11.4	12.1	10.7	14.1	14.6	13.8
10/29/01	12.3	12.7	11.9	10.8	11.3	10.1	11.3	12.1	10.6	14.0	14.4	13.8
10/30/01	12.4	12.6	11.9	11.3	11.5	10.7	11.8	12.1	10.9	14.1	14.3	13.6
10/31/01							11.0	11.7	10.3	13.5	13.6	13.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	14.1	16.5	11.8				6.1	7.0	5.6			
05/02/01	13.6	15.4	12.2				5.6	7.0	5.0			
05/03/01	11.7	13.9	9.8				5.0	5.9	4.2			
05/04/01	11.6	14.0	9.4				5.3	6.0	4.8			
05/05/01	12.6	15.0	10.5				5.9	6.7	5.1			
05/06/01	13.7	16.2	11.4				6.2	7.3	5.1			
05/07/01	14.7	17.3	12.5				6.2	7.9	5.1			
05/08/01	15.0	17.5	12.8				6.4	8.1	5.4			
05/09/01	14.9	17.5	12.8				6.1	7.5	5.0			
05/10/01	15.4	18.0	13.1				5.8	7.6	5.1			
05/11/01	15.9	18.5	13.9				5.7	8.1	4.6			
05/12/01	15.1	15.7	14.3				5.5	7.9	4.6			
05/13/01	14.0	16.7	12.5				5.0	5.9	4.2			
05/14/01	13.5	16.5	11.2				5.1	6.0	4.5			
05/15/01	14.9	17.2	13.1				5.9	7.8	4.3			
05/16/01	16.3	18.8	14.2				6.5	8.7	5.3			
05/17/01	16.7	19.3	14.8				6.4	8.7	5.1			
05/18/01	16.3	18.6	14.6				6.3	8.4	4.8			
05/19/01	16.3	18.9	14.0				6.4	7.5	5.3	10.1	12.0	7.5
05/20/01	16.7	19.4	14.2				6.9	8.8	5.0	10.5	12.7	7.6
05/21/01	17.4	20.1	15.0				7.0	9.3	5.1			
05/22/01	18.0	20.6	15.9				7.6	9.8	6.5			
05/23/01	18.3	20.9	16.1				7.4	9.3	6.2			
05/24/01	18.2	20.7	16.1				7.2	8.4	6.0			
05/25/01	17.7	20.2	15.7				7.5	8.4	6.8			
05/26/01	16.8	19.4	14.8				7.4	8.4	6.7			
05/27/01	16.4	19.1	14.3				7.4	7.9	6.7			
05/28/01	16.1	18.6	14.2				7.4	8.1	6.8			
05/29/01	16.3	18.9	14.2				7.8	8.5	7.0			
05/30/01	17.3	20.2	14.8				7.8	8.4	7.3			
05/31/01	18.2	21.1	15.7				8.2	9.0	7.5			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	18.4	20.9	16.4				8.4	9.0	7.8			
06/02/01	17.2	19.8	15.4				8.0	8.7	7.6			
06/03/01	15.8	18.5	13.7				7.8	8.4	7.1			
06/04/01	15.7	18.5	13.5				7.9	8.5	7.5			
06/05/01	16.0	18.6	13.9				8.1	8.8	7.8			
06/06/01	16.6	19.4	14.3				8.4	9.0	8.1			
06/07/01	17.5	20.4	15.1	13.9	14.5	12.0	8.9	9.8	8.2			
06/08/01	17.6	20.6	15.3	13.8	15.3	11.9	8.8	9.5	8.1			
06/09/01	17.3	20.1	15.1	13.3	15.4	11.4	8.8	9.3	8.2			
06/10/01	17.2	19.9	15.3	13.5	15.1	11.7	8.9	9.5	8.5			
06/11/01	16.7	19.1	14.6	13.8	15.1	11.9	9.0	9.5	8.4			
06/12/01	16.9	19.8	14.8	14.0	15.3	12.2	8.9	9.3	8.4			
06/13/01	16.5	19.1	14.3	13.7	15.6	11.4	8.8	10.2	8.2			
06/14/01	16.6	19.4	14.3	14.6	15.4	13.4	9.0	10.2	8.5			
06/15/01	17.1	19.9	14.6	14.8	15.4	14.5	9.1	9.8	8.7			
06/16/01	17.6	20.4	15.3	15.5	15.9	15.1	9.4	10.1	9.0			
06/17/01	17.9	20.6	15.7	15.9	16.4	15.6	9.5	10.2	9.1			
06/18/01	17.6	20.4	15.3	15.8	16.4	14.3	9.8	11.8	9.1			
06/19/01	17.7	20.4	15.3	16.1	16.4	15.3	9.7	11.3	9.3			
06/20/01	18.2	20.9	15.9	16.4	17.2	16.1	9.8	10.2	9.5			
06/21/01	18.8	21.7	16.5	16.9	17.8	16.1	10.0	10.4	9.6			
06/22/01	19.4	22.1	17.2	17.4	17.8	17.0	10.0	10.6	9.6	15.2	16.8	12.6
06/23/01	19.2	21.7	17.3	17.9	18.5	17.5	10.2	10.6	9.9	15.2	16.8	12.6
06/24/01	18.0	20.2	16.4	18.3	18.6	17.8	10.2	10.6	10.1	15.2	16.8	12.4
06/25/01	17.0	19.8	15.0	18.0	18.6	16.9	10.2	10.7	9.8	15.3	16.8	12.7
06/26/01	17.4	19.8	15.9	17.6	18.0	17.2	10.4	10.7	9.9	15.3	16.8	12.7
06/27/01	18.0	20.7	16.4	17.6	17.8	17.4	10.4	11.0	9.9	15.4	16.7	13.1
06/28/01	18.0	20.7	15.7	17.7	18.3	17.4	10.6	11.6	9.9	15.7	16.8	13.1
06/29/01	18.6	21.6	16.4	17.8	18.3	17.5	11.2	11.8	10.6	16.1	17.0	13.2
06/30/01	19.0	21.9	16.7	17.7	18.5	17.4	10.9	11.5	10.6	16.2	17.3	13.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	19.4	22.2	17.2	18.4	19.3	18.0	11.5	12.3	10.9	16.6	17.6	14.0
07/02/01	19.9	22.7	17.7	18.8	19.1	18.2	11.2	12.1	10.4	17.2	17.9	14.6
07/03/01	20.8	23.6	18.6	19.1	19.4	19.0	10.8	11.8	10.6	18.3	19.2	16.8
07/04/01	20.9	22.6	20.1	18.8	19.1	18.6	10.8	11.0	10.6	17.8	19.2	14.4
07/05/01	20.7	23.2	18.9	18.8	19.3	18.5	11.1	11.3	10.9	16.5	19.1	14.3
07/06/01	20.0	20.4	19.4	19.0	19.1	18.6	11.4	11.5	11.2	17.5	18.6	16.0
07/07/01	19.6	20.6	18.8	18.5	18.8	18.3	11.1	11.6	11.0	17.0	18.6	15.2
07/08/01	20.0	22.6	18.1	18.3	18.6	18.2	11.4	12.1	10.9	17.1	18.4	15.4
07/09/01	20.3	22.9	18.5	17.9	18.2	17.5	11.3	11.6	10.7	17.6	18.6	14.6
07/10/01	20.2	22.6	18.5	17.6	17.8	17.4	11.0	11.3	10.6	17.5	18.9	15.1
07/11/01	19.9	22.4	18.3	17.8	18.2	17.5	11.5	11.8	10.9	17.5	18.7	15.7
07/12/01	19.1	21.7	17.0	17.9	18.2	17.7	11.4	11.9	10.7	17.7	18.9	14.9
07/13/01	18.8	21.2	16.7	17.7	18.2	17.4	11.5	11.9	11.2	17.9	18.9	15.4
07/14/01	18.6	21.2	16.7	17.9	18.2	17.8	11.5	12.1	11.0	17.6	18.6	15.2
07/15/01	18.1	20.7	15.9	17.7	18.0	17.5	11.5	12.1	10.9	17.3	18.6	14.9
07/16/01	18.1	20.6	16.1	17.5	17.8	17.2	11.4	12.3	10.6	17.4	18.4	15.4
07/17/01	18.2	20.7	16.2	17.4	17.7	17.0	12.0	12.3	10.9	17.3	18.3	14.9
07/18/01	18.3	20.9	16.4	17.3	17.5	17.0	12.2	12.5	11.8	17.5	18.3	15.7
07/19/01	18.3	20.9	16.2	17.1	17.5	16.9	12.0	12.8	11.2	17.5	18.3	15.6
07/20/01	18.3	21.1	16.2	17.1	17.7	16.7	11.5	12.1	10.9	17.8	18.1	17.1
07/21/01	18.3	20.9	16.2	17.2	17.8	16.9	11.5	12.1	10.9	17.7	18.3	15.9
07/22/01	18.1	20.7	16.1	17.3	17.8	16.9	11.5	12.1	10.9	17.8	18.3	16.3
07/23/01	18.2	20.9	16.1	17.3	17.7	16.9	11.6	12.3	11.1	17.8	18.3	17.1
07/24/01	18.8	21.6	16.5	17.5	18.2	16.9	12.2	12.9	11.5	17.8	18.3	16.8
07/25/01	19.6	22.2	17.5	17.8	18.3	17.5	12.2	12.8	11.7	17.9	18.4	16.7
07/26/01	20.2	22.9	18.3	18.0	18.5	17.7	12.3	12.8	12.0	18.1	18.7	16.7
07/27/01	19.8	22.6	17.5	17.9	18.3	17.5	12.4	12.9	11.7	18.3	19.1	17.6
07/28/01	19.4	22.2	17.2	18.3	18.5	18.0	12.4	12.9	11.9	18.3	18.7	17.6
07/29/01	19.0	21.9	16.9	18.3	18.6	18.0	12.7	13.5	12.1	18.0	18.7	16.0
07/30/01	18.7	21.2	16.7	18.3	18.8	18.0	12.6	13.5	11.6	18.2	18.6	16.8
07/31/01	19.2	21.9	17.2	18.1	18.6	17.7	12.4	13.0	11.9	18.1	18.6	17.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	19.4	22.2	17.2	18.4	19.3	17.7	12.7	13.2	12.4	18.3	18.6	17.8
08/02/01	19.8	22.6	17.7	18.7	19.8	18.0	13.0	13.3	12.6	18.5	18.9	18.3
08/03/01	19.7	22.2	17.8	18.7	19.1	18.3	12.8	13.2	12.4	18.5	19.1	17.3
08/04/01	19.1	21.7	17.0	19.1	19.9	18.6	12.4	12.6	12.1	18.5	18.9	18.4
08/05/01	18.8	21.7	16.5	18.9	19.8	18.5	12.5	12.9	12.3	18.4	18.9	17.5
08/06/01	19.1	21.7	16.7	19.2	19.6	19.0	12.5	13.0	11.9	18.4	18.9	16.7
08/07/01	20.1	22.7	18.0	19.0	20.1	18.6	12.2	13.2	11.8	18.5	19.1	18.1
08/08/01	20.8	23.4	18.9	19.2	20.1	18.6	12.4	14.2	12.0	18.3	19.2	16.3
08/09/01	20.5	23.1	18.6	19.7	20.3	19.0	12.3	12.6	12.1	18.7	19.2	17.7
08/10/01	20.2	22.7	18.5	19.4	20.1	18.6	12.3	12.9	11.3	18.9	19.3	17.9
08/11/01	19.8	22.4	17.8	19.8	20.3	19.4	12.5	12.7	12.3	18.8	19.3	17.2
08/12/01	19.7	22.2	17.8	19.7	20.1	19.4	12.4	12.9	12.1	18.8	19.3	17.1
08/13/01	19.1	21.7	17.0	19.8	20.1	19.4	12.5	12.9	12.3	18.8	19.3	16.7
08/14/01	18.6	21.2	16.4	20.0	21.1	19.4	12.6	13.5	11.5	18.7	19.3	17.4
08/15/01	18.7	21.4	16.7	19.5	20.3	19.0	12.9	13.5	12.4	18.8	19.3	18.7
08/16/01	19.0	21.7	16.9	19.5	20.6	19.0	13.3	13.7	13.0	18.8	19.3	17.7
08/17/01	19.1	21.4	17.0	19.5	19.8	19.1	13.4	14.1	13.2	18.8	19.2	18.4
08/18/01	19.4	22.1	17.5	19.7	20.1	19.4	13.3	14.0	12.6	18.8	19.2	18.7
08/19/01	19.3	21.7	17.5	19.9	20.1	19.6	12.8	14.0	11.8	18.8	19.2	18.5
08/20/01	18.9	21.4	17.2	19.7	19.9	19.4	12.5	14.3	11.3	18.5	19.2	16.6
08/21/01	17.9	19.6	16.5	19.6	20.4	19.1	13.7	14.9	12.9	18.5	18.8	18.4
08/22/01	17.2	19.3	15.7	19.0	19.4	18.8	13.8	14.1	13.7	18.4	18.7	18.0
08/23/01	17.1	19.3	15.4	19.0	19.9	18.5	14.0	14.3	13.7	18.2	18.5	18.0
08/24/01	17.5	19.9	15.6	18.9	19.9	18.3	14.2	14.4	14.0	18.1	18.4	17.9
08/25/01	18.2	20.7	16.2	18.8	19.8	18.3	14.4	14.7	14.3	18.0	18.4	17.9
08/26/01	18.7	21.4	16.7	19.0	20.6	18.2	14.6	14.9	14.4	18.0	18.5	17.9
08/27/01	19.0	21.6	17.2				14.8	15.2	14.4	18.1	18.5	17.9
08/28/01	19.3	21.7	17.3				15.0	15.2	14.7	18.1	18.8	17.9
08/29/01	19.4	21.9	17.7				15.1	15.4	14.7	18.2	18.7	18.0
08/30/01	19.0	21.1	17.5				15.5	15.9	15.1	18.2	18.5	17.9
08/31/01	18.5	20.9	16.7				15.8	16.5	15.4	18.0	18.4	17.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	18.4	20.9	16.5				16.5	16.8	16.3	18.0	18.4	17.9
09/02/01	18.5	21.1	16.5				16.4	16.6	16.0	18.0	18.5	17.9
09/03/01	19.0	20.9	17.5				16.1	16.6	15.9	18.0	18.2	17.7
09/04/01	19.1	21.6	17.3				16.6	17.3	16.0	17.9	18.4	17.7
09/05/01	19.0	21.4	17.5				17.1	17.8	16.8	17.9	18.5	17.7
09/06/01	17.7	19.9	16.1				17.6	17.8	17.4	17.8	18.0	17.5
09/07/01	17.4	19.8	15.7				17.6	17.8	17.4	17.7	18.4	17.5
09/08/01	17.2	19.6	15.4				17.6	17.8	17.4	17.7	18.2	17.5
09/09/01	17.2	19.6	15.4				17.7	18.1	17.6	17.8	18.0	17.5
09/10/01	17.3	19.8	15.4				17.7	18.1	17.4	17.6	18.0	17.4
09/11/01	17.6	18.6	16.7				17.8	18.1	17.6	17.7	17.9	17.5
09/12/01	17.2	19.4	15.4				17.6	17.9	17.4	17.6	18.0	17.4
09/13/01	16.9	19.3	15.0				17.5	17.9	17.3	17.5	17.9	17.2
09/14/01	16.6	19.1	14.8				17.2	17.4	17.0	17.4	17.9	17.1
09/15/01	16.5	18.8	14.6				17.1	17.3	16.8	17.3	17.7	17.1
09/16/01	16.4	18.8	14.8				17.0	17.3	16.6	17.3	17.7	17.1
09/17/01	16.6	18.9	15.0				16.6	17.1	16.5	17.2	17.5	16.9
09/18/01	16.9	19.3	15.3				16.7	17.0	16.5	17.2	17.7	16.9
09/19/01	17.0	19.3	15.3				16.8	17.3	16.6	17.2	17.7	16.9
09/20/01	17.1	19.1	15.6				16.7	16.8	15.4	17.2	17.7	16.9
09/21/01	17.0	19.1	15.3				16.8	17.0	16.6	17.1	17.4	16.9
09/22/01	16.9	18.8	15.4				16.7	16.8	16.6	17.1	17.4	16.7
09/23/01	16.5	18.3	15.1				16.7	16.8	16.5	17.0	17.2	16.7
09/24/01	16.2	18.5	14.3				16.5	16.8	16.0	16.8	17.1	16.6
09/25/01	17.3	19.4	16.1				16.6	16.6	16.5	16.9	17.4	16.7
09/26/01	16.5	18.6	15.0				16.4	16.6	16.2	16.9	17.2	16.6
09/27/01	16.1	18.3	14.3				16.2	16.3	16.0	16.8	17.1	16.6
09/28/01	15.7	17.8	14.3				16.0	16.2	15.9	16.7	17.1	16.4
09/29/01	15.3	17.3	13.9				15.9	16.3	15.7	16.7	17.1	16.3
09/30/01	15.6	17.8	13.9				15.7	15.9	15.5	16.6	16.9	16.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Powerhouse 8			Ward Tunnel Intake			Portal Powerhouse Tailrace			Tunnel 1 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	16.4	18.8	14.6				15.6	15.7	15.5	16.5	16.9	16.3
10/02/01	16.7	18.6	15.3				15.5	15.7	15.4	16.5	16.7	16.3
10/03/01	16.8	18.8	15.3				15.5	15.5	15.4	16.5	16.9	16.3
10/04/01	16.8	18.6	15.4				15.4	15.5	15.2	16.4	16.7	16.1
10/05/01	16.3	17.8	15.3				15.4	15.5	15.1	16.3	16.6	16.1
10/06/01	15.3	16.9	14.2				15.2	15.4	14.9	16.2	16.4	16.0
10/07/01	14.8	16.5	13.4				15.0	15.2	14.7	16.1	16.4	15.8
10/08/01	15.0	16.7	13.7				14.8	15.1	14.6	16.0	16.1	15.8
10/09/01	14.8	16.5	13.5				14.6	14.9	14.3	15.8	16.0	15.5
10/10/01	14.1	15.9	12.8				14.3	14.6	14.0	15.7	16.0	15.5
10/11/01	13.8	15.3	12.8				14.0	14.3	13.8	15.5	15.6	15.3
10/12/01	13.6	15.3	12.3				13.9	14.3	13.5	15.4	15.8	15.2
10/13/01	13.6	15.4	12.2				13.6	14.1	13.2	15.4	15.6	15.2
10/14/01	13.4	15.3	12.2				13.2	13.5	12.9	15.3	15.6	15.0
10/15/01	13.5	15.3	12.2				13.1	13.3	12.9			
10/16/01	13.5	15.1	12.3				13.3	13.7	12.9			
10/17/01	13.6	15.0	12.5				13.1	13.3	12.9			
10/18/01	13.4	15.0	12.2				12.9	13.5	12.7			
10/19/01	13.3	14.8	12.2									
10/20/01	13.3	14.8	12.2									
10/21/01	13.2	14.6	12.2									
10/22/01	12.7	14.0	11.7									
10/23/01	12.6	14.0	11.5									
10/24/01	12.3	13.5	11.1									
10/25/01	12.0	13.7	10.9									
10/26/01	11.9	13.4	10.9									
10/27/01	11.9	13.2	10.9									
10/28/01	11.9	13.2	10.9									
10/29/01	12.0	12.9	11.1									
10/30/01	12.8	13.2	12.5									
10/31/01	12.2	13.2	11.2									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

	Big Creek Powerhouse 1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	5.6	6.0	4.9				10.4	12.2	9.6	9.2	11.6	7.3
05/02/01	5.1	5.9	4.6				10.3	11.8	9.6	9.8	12.5	7.4
05/03/01	6.2	7.0	4.9				10.5	12.4	9.6	8.7	11.5	7.0
05/04/01	5.6	6.2	5.3				10.7	13.6	9.6	10.0	11.5	7.6
05/05/01	5.9	6.3	5.4				10.8	14.2	9.6	10.2	12.2	8.1
05/06/01	6.0	6.5	5.6				10.9	13.3	9.7	10.3	12.9	8.2
05/07/01	5.8	6.5	5.6				10.7	11.9	9.7	10.7	12.9	9.0
05/08/01	5.7	6.3	5.4				11.0	12.7	9.7	10.5	13.2	8.7
05/09/01	5.8	6.3	5.4				10.9	12.1	9.9	10.4	11.8	9.3
05/10/01	5.9	6.3	5.6				11.1	12.2	9.9	10.6	12.5	9.3
05/11/01	6.0	6.5	5.7				11.2	12.2	10.0	11.5	16.5	9.0
05/12/01	6.0	6.3	5.7				11.3	12.7	10.2	10.4	13.0	9.1
05/13/01	5.9	6.3	5.7				11.5	13.0	10.2	10.2	10.8	9.4
05/14/01	6.1	6.5	5.9				11.9	13.0	10.2	10.6	11.9	9.4
05/15/01	6.0	6.3	5.9				10.9	12.4	10.2	10.7	12.5	9.4
05/16/01	6.1	6.3	5.9				10.8	12.1	10.2	10.9	12.1	9.7
05/17/01	6.2	6.5	6.0				10.9	13.1	10.5	11.0	13.0	9.9
05/18/01	6.2	6.5	6.0				11.2	12.4	10.5	11.1	13.3	10.1
05/19/01	6.3	6.5	6.0				11.3	12.4	10.5	11.2	13.0	10.4
05/20/01	6.4	6.8	6.2				11.5	12.4	10.8	11.2	12.4	10.4
05/21/01	6.4	6.7	6.3				11.9	13.8	10.8	11.2	12.7	10.5
05/22/01	6.5	6.8	6.3				12.1	13.5	10.7	11.2	11.8	10.8
05/23/01	6.5	7.0	6.3				11.8	13.8	10.8	11.3	12.2	10.7
05/24/01	6.6	7.1	6.3				11.7	12.7	10.8	11.4	12.7	10.5
05/25/01	6.7	7.3	6.5				11.8	13.0	10.7	11.6	13.3	10.8
05/26/01	6.8	7.3	6.7				12.2	13.8	10.8	11.6	12.9	11.0
05/27/01	6.9	7.3	6.7				12.2	14.1	11.0	11.7	12.5	11.2
05/28/01	6.9	7.3	6.8				12.6	14.5	11.1	11.9	13.2	11.0
05/29/01	7.0	7.4	6.8				12.6	14.1	11.1	12.0	13.5	11.5
05/30/01	7.1	7.6	7.0				12.3	13.9	11.0	12.1	13.3	11.6
05/31/01	7.3	7.7	7.1				12.3	14.2	11.1	12.1	12.5	11.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek Powerhouse 1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	7.3	7.9	7.1				12.4	14.2	11.1	12.2	12.7	11.8
06/02/01	7.5	7.9	7.3				12.2	15.8	11.4	12.3	13.2	11.9
06/03/01	7.5	7.9	7.3				12.2	14.1	11.3	12.4	13.0	11.9
06/04/01	7.7	8.2	7.4				12.6	14.5	11.4	12.6	13.5	12.2
06/05/01	7.7	8.0	7.4				12.6	14.2	11.4	12.6	13.3	12.2
06/06/01	7.8	8.2	7.6				12.4	14.1	11.3	12.8	13.9	12.2
06/07/01	7.9	8.4	7.7				12.5	14.2	11.4	12.9	14.1	12.4
06/08/01	8.0	8.8	7.7				12.1	13.3	11.6	13.0	13.6	12.7
06/09/01	8.1	8.7	7.9				12.2	13.6	11.8	13.2	14.1	12.9
06/10/01	8.2	8.8	7.9				12.2	13.0	11.8	13.3	14.1	12.9
06/11/01	8.3	8.8	8.0				12.6	13.5	11.9	13.5	14.2	12.9
06/12/01	8.4	9.0	8.2				12.5	13.3	11.8	13.7	14.4	13.2
06/13/01	8.6	9.4	8.2				12.8	15.0	11.8	13.9	15.0	13.2
06/14/01	8.7	9.7	8.4				12.7	13.9	11.9	14.0	15.0	13.3
06/15/01	8.9	9.7	8.5				12.9	14.5	12.1	14.2	14.9	13.6
06/16/01	9.1	9.9	8.7				12.7	14.1	12.2	14.3	14.9	13.9
06/17/01	9.2	9.9	8.7				13.3	15.2	12.1	14.4	14.9	14.2
06/18/01	9.2	9.9	8.8				13.3	14.9	12.1	14.6	15.0	14.4
06/19/01	9.3	10.1	9.0				12.9	13.8	12.4	14.8	15.3	14.6
06/20/01	9.3	10.1	9.0				13.1	14.2	12.4	15.0	15.3	14.7
06/21/01	9.5	10.4	9.0				13.1	14.1	12.4	15.1	15.5	14.7
06/22/01	9.6	10.2	9.1				13.2	13.6	12.7	15.2	15.7	14.9
06/23/01	9.6	10.1	9.3				13.4	13.9	12.7	15.5	16.0	14.9
06/24/01	9.7	10.1	9.3				13.4	14.2	13.0	15.6	16.0	15.2
06/25/01	9.7	10.1	9.4				14.9	15.8	13.6	15.9	16.5	15.3
06/26/01	9.8	10.2	9.4				14.2	15.6	12.8	16.2	16.9	15.2
06/27/01	10.1	11.0	9.6	10.2	10.6	9.9	13.7	14.7	12.7	16.0	16.9	15.3
06/28/01	10.1	10.8	9.7	10.3	10.6	9.9	13.9	14.9	13.0	16.3	16.8	15.7
06/29/01	10.2	10.8	9.7	10.4	10.7	10.1	13.9	14.1	13.3	16.4	17.1	15.8
06/30/01	10.4	11.0	9.9	10.6	11.0	10.3	14.2	14.5	13.5	16.5	16.9	16.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek Powerhouse 1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	10.5	11.3	9.9	10.7	11.3	10.4	14.4	14.9	13.5	16.6	17.1	16.5
07/02/01	10.7	11.8	9.9	10.8	11.5	10.4	14.4	14.9	13.8	16.9	17.4	16.5
07/03/01	10.9	12.1	10.2	11.0	11.8	10.4	14.7	15.2	13.9	17.1	17.4	16.5
07/04/01	10.6	11.3	10.1	11.1	12.0	10.3	14.7	15.2	13.9	17.1	17.6	16.8
07/05/01	10.6	11.1	10.1	10.9	12.1	10.4	15.0	15.3	14.1	17.4	18.2	16.9
07/06/01	10.6	11.4	10.1	11.0	11.6	10.6	15.2	15.5	14.4	17.3	17.9	16.8
07/07/01	10.5	10.8	10.1	10.9	11.5	10.4	15.3	16.0	14.5	17.4	18.2	16.8
07/08/01	10.4	10.8	10.1	10.8	11.2	10.4	15.3	15.8	14.5	17.5	18.0	17.1
07/09/01	10.4	10.8	10.2	10.6	10.9	10.4	15.5	15.8	14.1	17.7	18.0	17.2
07/10/01	10.4	10.8	10.1	10.7	10.9	10.4	15.2	16.0	14.1	17.8	18.5	17.4
07/11/01	10.5	10.8	10.2	10.8	11.0	10.6	15.0	16.1	14.2	17.9	18.2	17.6
07/12/01	10.6	11.1	10.2	10.8	11.2	10.4	15.5	16.1	14.5	18.1	18.9	17.4
07/13/01	10.7	11.1	10.2	11.0	11.2	10.7	15.8	16.3	15.0	18.2	18.9	17.6
07/14/01	11.0	12.2	10.4	11.1	11.8	10.7	16.1	16.6	15.2	18.2	18.7	17.7
07/15/01	11.0	12.1	10.5	11.0	11.6	10.9	16.2	16.6	15.2	18.4	18.7	17.7
07/16/01	10.7	11.3	10.4	10.9	11.2	10.7	16.6	16.9	15.6	18.5	19.7	17.7
07/17/01	10.7	11.3	10.4	11.0	11.2	10.7	16.8	17.2	16.1	18.6	18.9	18.0
07/18/01	11.2	12.1	10.7	11.3	12.0	10.9	16.8	17.2	15.6	18.7	19.0	18.4
07/19/01	11.1	11.9	10.7	11.2	11.5	10.9	16.9	17.4	15.8	18.9	19.3	18.2
07/20/01	11.1	11.9	10.7	11.3	11.6	11.0	17.0	17.6	16.0	19.0	19.5	18.4
07/21/01	11.3	12.2	10.8	11.4	12.1	11.0	16.7	17.4	15.2	18.9	19.5	18.4
07/22/01	11.3	11.8	10.8	11.4	12.1	11.2	16.3	17.4	14.5	19.1	19.8	18.5
07/23/01	11.2	11.8	10.8	11.4	11.6	11.0	16.9	17.6	15.6	19.3	19.8	18.7
07/24/01	11.2	11.8	10.8	11.4	11.6	11.2	16.8	17.6	16.3	19.3	20.3	18.7
07/25/01	11.4	12.2	10.8	11.5	11.8	11.2	16.3	16.8	16.1	19.4	20.0	18.7
07/26/01	11.5	12.4	11.0	11.6	12.0	11.3	17.2	17.9	16.1	19.3	19.7	18.9
07/27/01	11.5	12.4	11.0	11.6	12.0	11.3	17.7	18.0	16.3	19.5	20.0	19.0
07/28/01	11.6	12.7	11.1	11.7	12.6	11.3	17.8	18.2	16.6	19.6	20.0	19.0
07/29/01	11.6	12.7	11.1	11.7	12.7	11.5	17.9	18.4	16.9	19.8	20.6	19.2
07/30/01	11.5	12.2	11.1	11.6	11.8	11.5	18.2	18.5	17.1	19.7	20.1	19.3
07/31/01	11.6	12.2	11.1	11.7	12.0	11.5	18.2	18.5	17.1	19.9	20.3	19.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek Powerhouse 1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	11.5	12.1	11.1	11.6	12.0	11.3	18.2	18.7	17.1	20.4	21.1	19.5
08/02/01	11.5	12.1	11.3	11.7	12.0	11.3	18.5	18.8	17.6	19.8	20.3	19.2
08/03/01	11.6	12.1	11.3	11.7	12.0	11.5	18.4	18.8	17.4	20.2	20.6	19.7
08/04/01	11.9	12.7	11.4	12.0	12.4	11.8	18.5	19.0	17.2	20.2	20.8	19.5
08/05/01	11.9	12.5	11.6	12.0	12.3	11.8	18.6	18.8	17.6	20.4	21.0	19.8
08/06/01	11.9	12.2	11.4	12.0	12.3	11.5	18.4	19.0	16.6	20.8	21.5	20.0
08/07/01	12.0	12.5	11.4	12.1	12.6	11.8	18.3	19.0	16.9	21.0	21.3	20.3
08/08/01	12.1	12.7	11.6	12.2	12.7	11.8	18.5	18.8	17.4	21.2	22.8	19.8
08/09/01	12.0	12.7	11.6	12.2	12.6	11.8	18.6	19.0	17.7	20.3	20.8	19.8
08/10/01	12.4	13.0	11.6	12.6	13.2	12.1	18.7	19.0	17.7	20.8	21.3	20.3
08/11/01	12.5	13.2	11.8	12.5	12.9	12.1	18.7	18.8	18.2	21.0	21.8	20.1
08/12/01	12.4	13.0	11.6	12.6	12.9	12.1	18.6	19.0	18.0	21.2	22.0	20.3
08/13/01	12.3	13.0	11.8	12.5	12.9	12.1	18.6	19.0	18.0	21.9	23.0	20.6
08/14/01	12.4	13.0	11.9	12.5	12.9	12.1	18.4	18.8	16.0	21.1	23.0	20.0
08/15/01	12.4	13.0	11.9	12.5	12.9	12.3	17.5	18.2	15.5	20.7	21.1	20.3
08/16/01	12.6	13.0	12.1	12.7	13.0	12.4	17.6	18.2	16.4	21.6	23.0	21.0
08/17/01	12.5	13.0	12.2	12.7	12.9	12.3	17.3	18.0	16.0	21.3	23.0	20.8
08/18/01	12.8	13.2	12.4	13.4	14.0	12.9	17.2	18.0	16.3	21.0	21.3	20.8
08/19/01	12.6	12.8	12.4	13.7	14.0	13.3	17.1	18.0	16.1	21.5	22.0	20.8
08/20/01	12.8	13.9	12.4	13.2	13.8	12.7	17.0	17.9	16.1	22.1	22.6	21.1
08/21/01	12.8	13.3	12.2	12.9	13.2	12.6	16.9	17.7	16.0	21.6	22.5	20.6
08/22/01	12.8	13.2	12.4	12.9	13.2	12.6	16.8	17.7	16.1	21.3	21.6	20.6
08/23/01	12.8	13.3	12.4	12.9	13.3	12.6	16.7	17.7	16.0	21.2	21.5	20.8
08/24/01	12.9	13.3	12.5	13.0	13.3	12.7	16.7	17.6	15.8	21.0	21.1	20.8
08/25/01	13.2	13.9	12.7	13.3	13.5	13.0	16.6	17.4	15.8	21.0	21.3	20.8
08/26/01	13.1	13.6	12.7	13.2	13.5	13.0	16.5	17.4	15.6	21.1	21.5	20.8
08/27/01	13.3	13.8	12.8	13.3	13.7	13.0	16.3	17.1	15.6	21.1	21.3	21.0
08/28/01	13.2	13.9	12.7	13.3	13.7	13.0	16.0	16.8	15.5	21.1	21.3	21.0
08/29/01	13.2	13.8	12.8	13.4	13.7	13.0	16.3	17.1	15.3	21.1	21.3	21.1
08/30/01	13.4	14.2	12.8	13.5	13.8	13.2	16.3	16.9	15.2	21.4	21.8	21.1
08/31/01	13.5	13.9	12.8	13.5	13.8	13.0	16.0	16.8	15.0	21.3	21.6	21.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek Powerhouse 1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	13.5	14.2	13.0	13.5	14.1	13.3	15.9	16.6	14.9	21.2	21.5	21.0
09/02/01	13.4	13.9	13.0	13.5	13.7	13.3	15.8	16.6	14.9	21.1	21.3	21.0
09/03/01	13.5	14.2	13.0	13.6	13.8	13.3	15.6	16.4	14.9	21.1	21.3	21.0
09/04/01	13.5	13.9	13.2	13.7	14.0	13.3	15.7	16.3	15.2	21.1	21.3	20.6
09/05/01	13.6	14.1	13.2	13.8	14.0	13.3	15.7	16.3	14.5	21.0	21.1	21.0
09/06/01	13.7	14.2	13.3	13.8	14.0	13.5	15.4	16.0	13.9	21.0	21.1	20.8
09/07/01	13.7	14.1	13.3	13.8	14.1	13.5	14.7	15.2	13.9	20.7	21.0	20.6
09/08/01	13.8	14.2	13.3	13.8	14.0	13.5	16.6	16.9	15.6	20.8	21.5	20.5
09/09/01	13.9	14.2	13.6	13.9	14.3	13.7	16.8	17.2	16.1	21.1	21.5	21.0
09/10/01	13.9	14.2	13.6	13.9	14.1	13.8	16.8	17.2	15.6	21.1	21.1	21.0
09/11/01	14.0	14.4	13.6	14.1	14.3	14.0	16.9	17.4	15.8	21.0	21.1	20.6
09/12/01	14.0	14.2	13.6	14.1	14.3	13.8	17.0	17.6	16.0	20.7	21.0	20.6
09/13/01	14.0	14.4	13.6	14.1	14.3	13.8	16.7	17.4	15.2	20.5	20.8	20.3
09/14/01	14.0	14.5	13.6	14.1	14.6	13.7	16.3	17.4	14.5	20.3	20.8	20.1
09/15/01	14.1	14.7	13.6	14.2	14.6	13.8	16.9	17.6	15.6	20.3	20.6	20.0
09/16/01	14.4	14.7	13.8	14.4	14.7	14.1	16.8	17.6	16.3	20.0	20.1	20.0
09/17/01	14.2	14.5	13.8	14.3	14.6	14.0	16.3	16.8	16.1	19.9	20.1	19.8
09/18/01	14.1	14.7	13.5	14.2	14.4	13.8	17.2	17.9	16.1	19.8	20.1	19.7
09/19/01	14.4	14.7	13.8	14.4	14.6	14.1	17.7	18.0	16.3	19.8	20.1	19.7
09/20/01	14.4	14.7	13.9	14.4	14.6	14.1	17.8	18.2	16.6	19.8	20.0	19.7
09/21/01	14.4	14.9	13.8	14.5	14.7	14.1	17.9	18.4	16.9	19.8	20.1	19.7
09/22/01	14.4	14.7	13.9	14.5	14.7	14.1	18.2	18.5	17.1	19.8	20.0	19.7
09/23/01	14.4	14.7	13.9	14.5	14.7	14.1	18.2	18.5	17.1	19.9	20.1	19.7
09/24/01	14.4	14.9	13.9	14.5	14.7	14.1	18.2	18.7	17.1	20.0	20.3	19.7
09/25/01	14.6	15.0	14.2	14.7	14.9	14.6	18.5	18.8	17.6	20.1	20.3	19.8
09/26/01	14.7	15.0	14.1	14.7	15.1	14.4	18.4	18.8	17.4	19.9	20.1	19.7
09/27/01	14.8	15.2	14.1	14.9	15.1	14.4	18.5	19.0	17.2	19.6	19.8	19.5
09/28/01	14.9	15.2	14.1	15.0	15.2	14.6	18.6	18.8	17.6	19.5	19.7	19.3
09/29/01	14.9	15.3	14.2	15.0	15.2	14.6	18.4	19.0	16.6	19.3	19.7	19.2
09/30/01	14.9	15.3	14.1	15.0	15.5	14.4	18.3	19.0	16.9	19.3	19.7	19.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek Powerhouse 1 Tailrace			Tunnel 2 Intake			Powerhouse 2 Tailrace			Tunnel 5 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	15.0	15.5	14.5	15.1	15.4	14.7	18.5	18.8	17.4	19.4	19.8	19.2
10/02/01	15.1	15.6	14.5	15.2	15.5	14.7	18.6	19.0	17.7	19.2	19.5	19.0
10/03/01	15.2	16.1	14.4	15.4	15.7	14.7	18.7	19.0	17.7	19.2	19.5	19.0
10/04/01				15.4	15.7	15.1	18.7	18.8	18.2	19.2	19.5	19.0
10/05/01				15.4	15.7	14.7	18.6	19.0	18.0	19.2	19.3	19.0
10/06/01				15.4	15.7	15.1	18.6	19.0	18.0	19.0	19.2	19.0
10/07/01				15.3	15.5	14.9	18.4	18.8	16.0	18.9	19.0	18.9
10/08/01				15.2	15.4	14.9	17.5	18.2	15.5	18.8	18.9	18.7
10/09/01				15.0	15.4	14.7	17.6	18.2	16.4	18.7	18.7	18.5
10/10/01				14.9	15.2	14.7	17.3	18.0	16.0	18.6	18.7	18.5
10/11/01				14.9	15.2	14.6	17.2	18.0	16.3	18.5	18.5	18.4
10/12/01				15.0	15.4	14.6	17.1	18.0	16.1	18.4	18.4	18.2
10/13/01				14.9	15.2	14.6	17.0	17.9	16.1	18.3	18.5	18.0
10/14/01				14.9	15.4	14.6	16.9	17.7	16.0	18.2	18.4	18.0
10/15/01				14.8	15.2	14.6	16.8	17.7	16.1	18.1	18.4	18.0
10/16/01				14.8	15.1	14.4	16.7	17.7	16.0	18.1	18.2	18.0
10/17/01				14.7	15.1	14.4	16.7	17.6	15.8	17.8	18.0	17.7
10/18/01				14.6	14.9	14.3	16.6	17.4	15.8	17.7	17.7	17.6
10/19/01				14.5	14.7	14.3	16.5	17.4	15.6	17.6	17.7	17.6
10/20/01				14.4	14.7	14.1	16.3	17.1	15.6	17.5	17.7	17.4
10/21/01				14.3	14.6	14.1	16.0	16.8	15.5	17.4	17.6	17.2
10/22/01				14.2	14.6	14.0	16.3	17.1	15.3	17.2	17.2	17.1
10/23/01				14.2	14.6	14.0	16.3	16.9	15.2	17.1	17.1	17.1
10/24/01				14.1	14.4	13.8	16.0	16.8	15.0	17.0	17.1	16.9
10/25/01				14.0	14.3	13.7	15.9	16.6	14.9	17.0	17.2	16.8
10/26/01				13.9	14.1	13.7	15.8	16.6	14.9	16.9	16.9	16.8
10/27/01				13.8	14.0	13.7	15.6	16.4	14.9			
10/28/01				13.6	13.8	13.3	15.7	16.3	15.2			
10/29/01				13.6	13.8	13.5	15.7	16.3	14.5			
10/30/01				13.5	13.7	13.0	15.4	16.0	13.9			
10/31/01							14.7	15.2	13.9			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	11.2	12.7	8.8	7.3	8.1	6.9	7.6	8.5	7.1			
05/02/01	10.1	12.4	8.2	6.6	7.8	6.2	6.9	7.9	6.7			
05/03/01	7.8	9.4	6.7	6.3	6.9	5.8	6.6	7.0	6.1			
05/04/01	7.3	9.4	6.5	6.3	6.5	6.1	6.6	6.8	6.4			
05/05/01	7.9	10.5	6.8	6.4	6.9	6.2	6.7	7.0	6.5			
05/06/01	8.1	9.4	7.0	6.6	6.9	6.4	6.9	7.1	6.7			
05/07/01	8.6	10.7	7.1	6.6	6.9	6.4	6.9	7.1	6.7			
05/08/01	8.9	12.9	7.4	6.6	6.9	6.4	6.9	7.1	6.7			
05/09/01	8.8	11.5	7.3	6.6	6.9	6.4	6.9	7.0	6.7			
05/10/01	8.7	15.0	7.3	6.7	7.3	6.4	6.9	7.5	6.7			
05/11/01	10.3	15.5	7.3	6.7	7.0	6.5	7.0	7.1	6.8			
05/12/01	9.8	13.3	7.3	6.7	7.0	6.4	6.9	7.1	6.8			
05/13/01	9.3	12.2	7.3	6.6	7.0	6.4	6.9	7.1	6.8			
05/14/01	8.8	12.4	7.3	6.7	7.0	6.4	7.0	7.1	6.8			
05/15/01	9.3	11.9	7.6	6.8	7.2	6.5	7.0	7.5	6.8			
05/16/01	8.7	10.8	7.4	6.9	7.0	6.7	7.1	7.3	6.8			
05/17/01	8.8	11.0	7.6	6.9	7.2	6.7						
05/18/01	10.8	12.7	7.9	7.0	7.2	6.9						
05/19/01	11.6	16.0	7.4	7.0	7.3	6.9	7.3	7.6	7.1	5.9	9.9	3.4
05/20/01	13.8	16.8	8.2	7.3	7.8	6.9	7.6	8.1	7.1	6.4	10.4	3.7
05/21/01	14.3	17.1	8.8	7.3	7.9	6.9	7.7	8.1	7.3	7.1	11.2	4.2
05/22/01	14.3	17.9	10.5	7.4	7.8	7.0				7.8	11.8	5.0
05/23/01	13.5	16.5	7.8	7.4	7.8	7.0				8.3	12.1	5.3
05/24/01	8.5	10.8	7.6	7.3	7.8	7.0	7.6	8.1	7.3	8.6	12.3	5.8
05/25/01	8.5	9.1	7.9	7.4	7.6	7.3	7.7	7.9	7.5	8.8	12.4	5.9
05/26/01	8.6	9.0	8.1	7.4	7.6	7.3	7.7	7.8	7.5	8.4	11.8	5.8
05/27/01	8.3	9.3	7.6	7.5	7.6	7.3	7.7	7.9	7.6	8.5	11.9	5.8
05/28/01	8.5	9.9	7.9	7.5	7.8	7.3	7.8	7.9	7.6	8.6	11.6	5.9
05/29/01	8.8	11.6	7.8	7.7	7.9	7.5	7.9	8.2	7.8	9.2	12.7	6.4
05/30/01	9.0	10.4	8.2	7.8	8.2	7.6	8.1	8.4	7.8	10.0	13.5	7.0
05/31/01	9.3	13.8	8.5	8.0	8.9	7.8	8.2	8.8	8.1	11.0	14.4	8.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	9.3	11.5	8.4	8.0	8.2	7.8	8.2	8.4	8.1	11.1	14.1	8.4
06/02/01	9.0	9.8	8.4	8.0	8.2	7.9	8.3	8.4	8.1	10.1	13.0	7.9
06/03/01	8.8	9.6	8.1	8.0	8.2	7.8	8.2	8.4	8.1	8.6	11.8	5.9
06/04/01	8.9	9.8	8.2	8.1	8.2	7.9	8.4	8.5	8.2	8.9	12.1	6.1
06/05/01	8.3	8.8	8.1	8.0	8.1	7.9	8.3	8.4	8.2	9.2	12.3	6.4
06/06/01	8.4	8.5	8.2	8.1	8.2	8.1	8.4	8.5	8.2	10.3	13.8	7.3
06/07/01	8.5	8.8	8.4	8.2	8.4	8.1	8.5	8.7	8.4	10.8	14.1	7.8
06/08/01	8.8	10.4	8.4	8.3	8.4	8.2	8.6	8.7	8.4	10.7	14.0	7.8
06/09/01	8.7	9.0	8.5	8.4	8.6	8.2	8.7	8.8	8.5	10.8	14.0	7.9
06/10/01	8.7	9.0	8.5	8.5	8.6	8.4	8.8	8.8	8.7	10.9	14.1	8.4
06/11/01	8.8	9.0	8.7	8.6	8.7	8.4	8.9	9.0	8.7	10.4	13.3	7.8
06/12/01	8.9	9.3	8.7	8.7	8.9	8.6	9.0	9.1	8.8	10.3	13.3	7.8
06/13/01	9.0	9.3	8.8	8.8	9.0	8.6	9.0	9.1	8.8	9.5	12.7	6.5
06/14/01	9.1	9.3	9.0	8.9	9.0	8.7	9.1	9.3	9.0	10.1	13.3	7.2
06/15/01	9.3	9.9	9.1	9.0	9.2	8.9	9.3	9.6	9.1	10.7	14.1	7.8
06/16/01	9.3	9.6	9.1	9.1	9.3	8.9	9.4	9.6	9.1	11.2	14.6	8.1
06/17/01	9.7	14.1	9.3	9.2	9.5	9.0	9.5	10.2	9.3	11.6	14.7	8.8
06/18/01	10.4	14.4	9.3	9.3	9.6	9.2	9.6	10.4	9.5	11.3	14.7	8.2
06/19/01	9.9	15.0	9.3	9.4	9.6	9.2	9.7	9.9	9.5	11.5	15.0	8.4
06/20/01	10.7	15.2	9.4	9.5	9.8	9.3	9.8	10.5	9.6	12.1	15.5	9.3
06/21/01	11.1	15.5	9.4	9.8	10.4	9.5	10.2	11.3	9.8	12.8	16.3	9.8
06/22/01	11.4	15.7	9.6	9.8	10.4	9.5	10.3	11.6	9.9	13.3	16.6	10.6
06/23/01	11.3	14.4	9.6	9.9	10.6	9.6	10.3	11.5	9.9	13.3	16.6	10.9
06/24/01	11.9	14.7	9.8	10.1	10.7	9.8	10.6	11.6	9.9	12.2	14.9	10.1
06/25/01	11.5	14.4	9.8	10.1	10.6	9.8	10.6	11.8	10.1	11.4	14.6	8.7
06/26/01	11.0	14.9	9.8	10.2	10.9	9.8	10.7	11.9	10.1	12.0	15.0	9.8
06/27/01	11.6	14.9	9.8	10.4	12.0	9.8	11.0	12.6	10.2	12.4	15.5	10.4
06/28/01	11.5	16.6	9.8	10.3	11.3	9.9	11.0	12.4	10.2	12.2	15.8	9.2
06/29/01	12.2	16.9	9.9	10.4	11.2	10.1	11.1	12.6	10.4	12.8	16.5	9.8
06/30/01	12.8	15.5	9.9	10.5	11.0	10.1	11.2	12.4	10.5	13.2	16.8	10.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	12.8	16.8	10.1	10.7	11.5	10.3	11.5	13.0	10.5	13.7	17.1	10.9
07/02/01	13.0	16.0	10.2	10.8	11.2	10.3	11.5	12.9	10.7	14.4	17.9	11.3
07/03/01	13.2	16.3	10.2	10.9	11.5	10.4	11.7	13.2	10.9	15.2	18.4	12.6
07/04/01	13.3	15.7	10.4	11.0	11.7	10.4	11.9	13.3	10.9	14.9	16.0	14.0
07/05/01	13.0	15.7	10.5	11.0	12.1	10.6	11.8	13.2	10.7	15.1	18.4	12.6
07/06/01	13.0	15.7	10.4	11.1	11.7	10.6	12.0	13.8	10.9	13.9	14.9	13.2
07/07/01	14.0	16.1	10.7	11.2	11.8	10.6	11.8	13.3	10.9	13.1	13.8	12.4
07/08/01	12.2	16.3	10.5	10.9	11.5	10.6	11.4	12.6	10.9	13.3	15.7	11.5
07/09/01	11.5	15.3	10.5	10.8	11.3	10.6	11.1	11.8	10.9	13.8	17.1	11.0
07/10/01	11.5	18.0	10.8	10.9	13.8	10.6	11.1	12.7	10.9	14.2	17.4	11.8
07/11/01	12.3	15.5	10.8	11.0	11.5	10.7	11.3	12.2	11.0	14.1	17.3	11.6
07/12/01	12.4	15.5	10.8	11.0	11.5	10.7	11.4	12.4	11.0	13.4	16.8	10.4
07/13/01	13.1	15.5	11.2	11.2	11.7	10.9	11.8	13.0	11.2	12.7	15.4	10.2
07/14/01	13.6	15.7	11.2	11.5	12.7	11.0	12.5	14.3	11.3	12.8	16.0	10.1
07/15/01	13.5	15.5	11.0	11.7	13.4	11.0	13.0	14.6	11.3	12.3	15.5	9.5
07/16/01	13.1	16.1	11.0	11.3	12.0	11.0	12.3	14.3	11.3	12.2	15.2	9.5
07/17/01	13.2	15.3	11.0	11.3	12.0	11.0	12.0	13.3	11.3	12.2	15.4	9.3
07/18/01	13.1	15.5	11.0	11.6	13.1	11.0	12.6	13.9	11.3	12.4	15.7	9.6
07/19/01	12.8	15.0	11.0	11.6	13.4	11.2	12.6	13.9	11.3	12.2	15.4	9.3
07/20/01	12.9	15.3	11.2	11.6	13.2	11.2	12.4	13.6	11.5	12.3	15.5	9.5
07/21/01	13.4	17.1	11.3	11.8	13.8	11.2	13.0	14.7	11.5	12.4	15.5	9.6
07/22/01	13.6	16.6	11.3	11.9	13.8	11.2	13.3	15.0	11.5	12.1	15.4	9.2
07/23/01	12.9	15.2	11.3	11.6	12.6	11.3	12.6	14.1	11.6	12.3	15.4	9.5
07/24/01	12.9	15.3	11.3	11.7	12.6	11.3	12.6	14.1	11.6	12.9	16.0	9.9
07/25/01	12.9	15.7	11.5	11.7	12.6	11.3	12.7	14.3	11.6	13.5	16.5	10.6
07/26/01	13.5	16.9	11.6	11.8	13.1	11.5	12.9	14.6	11.8	14.3	17.4	11.6
07/27/01	13.5	16.9	11.5	11.8	12.4	11.5	12.5	14.3	11.8	13.7	16.6	10.9
07/28/01	14.0	16.9	11.6	12.2	14.0	11.5	12.9	13.9	11.8	13.4	16.3	10.6
07/29/01	13.8	17.1	11.6	12.1	13.7	11.5	13.1	14.3	11.8	13.1	16.2	10.4
07/30/01	13.0	15.2	11.6	11.9	12.9	11.5	12.8	14.1	11.9	12.8	15.7	10.2
07/31/01	13.1	15.3	11.6	12.0	13.1	11.7	12.8	13.9	11.9	13.0	16.2	10.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	12.6	15.3	11.8	11.9	12.1	11.7	12.3	13.5	11.9	13.3	16.3	10.6
08/02/01	12.6	15.3	11.9	11.9	12.3	11.8	12.4	14.1	12.1	13.7	16.6	11.0
08/03/01	12.8	15.5	12.1	12.0	12.3	11.8	12.4	13.6	12.1	13.9	16.8	11.5
08/04/01	14.0	16.3	12.1	12.4	13.5	12.1	13.0	13.9	12.2	13.1	15.8	10.6
08/05/01	13.9	16.0	12.1	12.3	13.4	12.0	13.0	14.3	12.2	12.5	15.5	9.5
08/06/01	13.5	16.8	11.9	12.3	12.9	12.1	12.9	14.6	12.2	13.3	16.3	10.2
08/07/01	13.5	16.5	12.2	12.4	13.1	12.1	12.9	14.1	12.4	14.5	17.3	11.9
08/08/01	13.7	16.9	12.2	12.5	13.4	12.3	13.1	14.7	12.6	14.8	17.4	12.4
08/09/01	13.4	16.5	12.4	12.5	13.2	12.3	13.0	14.4	12.6	14.6	17.3	12.3
08/10/01	14.5	17.6	12.4	12.9	14.6	12.4	13.8	15.2	12.7	14.5	17.1	12.1
08/11/01	14.5	16.9	12.4	12.9	13.8	12.6	13.7	15.0	12.7	14.0	16.8	11.3
08/12/01	14.4	16.9	12.7	12.8	13.1	12.6	13.5	16.3	12.9	13.9	16.6	11.3
08/13/01	13.8	16.8	12.7	12.8	13.4	12.4	13.3	14.6	12.9	13.6	16.3	11.2
08/14/01	13.7	16.5	12.5	12.9	13.2	12.6	13.3	14.7	12.9	13.4	16.0	11.0
08/15/01	13.7	16.1	12.7	12.9	13.2	12.6	13.3	14.3	12.9	13.1	15.5	10.9
08/16/01	14.4	17.1	12.9	13.1	13.4	12.9	13.6	14.4	13.2	13.2	15.8	10.7
08/17/01	13.7	16.0	13.0	13.1	13.4	12.9	13.5	15.4	13.2	13.5	16.0	10.9
08/18/01	16.5	17.7	13.9	14.4	15.4	13.4	16.0	17.1	13.8	13.8	16.3	11.5
08/19/01	15.5	17.9	13.0	14.3	15.9	13.1	15.9	17.6	13.5	13.6	16.2	11.3
08/20/01	14.2	16.1	12.9	13.5	14.0	12.9	14.3	16.1	13.3	13.1	15.5	11.0
08/21/01	14.3	16.3	13.0	13.4	13.7	13.1	14.3	16.3	13.3	12.4	14.7	10.4
08/22/01	14.3	15.5	13.3	13.5	13.8	13.2	14.0	15.2	13.5	11.8	14.1	9.6
08/23/01	14.4	15.7	13.5	13.6	13.8	13.4	14.2	16.5	13.6	11.4	14.0	8.8
08/24/01	14.7	16.0	13.6	13.7	13.8	13.5	14.3	16.3	13.8	11.4	14.0	8.7
08/25/01	15.2	16.1	13.9	14.0	14.8	13.7	14.9	15.8	13.9	12.1	14.6	9.6
08/26/01	15.2	16.8	13.9	14.1	14.6	13.7	14.8	15.8	13.9	12.6	15.2	10.2
08/27/01	15.6	17.7	14.1	14.2	14.4	13.7	15.0	16.1	13.9	12.9	15.4	10.6
08/28/01	15.4	17.1	14.2	14.3	14.8	13.8	14.8	16.0	14.3	13.0	15.5	10.6
08/29/01	15.4	16.6	14.6	14.4	14.9	14.1	14.8	16.1	14.4	13.0	15.4	10.9
08/30/01	15.7	16.9	14.6	14.5	14.9	14.1	15.3	17.7	14.4	12.6	14.7	10.6
08/31/01	15.7	17.4	14.7	14.8	15.4	14.0	15.5	16.9	14.3	12.1	14.3	9.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	15.8	17.6	14.9	15.0	15.9	14.3	15.7	17.6	14.7	12.0	14.3	9.8
09/02/01	16.1	17.2	14.6	14.5	15.2	13.8	15.8	18.2	14.4	12.1	14.3	9.9
09/03/01	16.2	17.2	14.6	14.4	15.1	14.0	15.7	17.4	14.3	12.3	14.1	10.7
09/04/01	16.2	17.2	14.6	14.7	15.1	14.3	15.6	17.3	14.6	12.3	14.4	10.2
09/05/01	16.3	17.4	14.9	14.9	15.2	14.6	15.6	16.9	14.9	12.2	14.3	10.4
09/06/01	16.4	16.9	15.2	15.1	15.6	14.6	15.8	17.1	14.9	11.2	13.2	9.2
09/07/01	16.5	17.1	15.2	15.1	15.4	14.8	15.8	17.3	14.9	11.1	13.2	9.0
09/08/01	16.8	17.6	15.7	15.4	16.0	14.9	15.9	17.9	15.2	11.0	13.0	8.7
09/09/01	17.0	17.9	16.6	15.6	16.2	15.4	16.2	17.9	15.5	10.8	12.7	8.8
09/10/01	16.9	17.6	15.8	15.6	16.0	15.1	16.3	17.7	15.4	10.7	12.7	8.7
09/11/01	17.1	17.7	15.8	15.8	16.4	15.2	16.4	18.1	15.5	10.8	11.9	9.9
09/12/01	17.1	17.9	16.0	15.7	16.4	15.1	16.4	17.7	15.4	10.4	12.1	8.5
09/13/01	17.2	17.9	16.1	15.6	15.9	14.8	16.3	17.7	15.0	9.8	11.8	7.6
09/14/01	16.7	17.6	14.7	15.4	15.9	14.3	16.4	17.6	14.7	9.4	11.3	7.3
09/15/01	17.0	17.7	15.0	15.7	16.2	15.1	16.5	17.6	15.5	9.4	11.3	7.5
09/16/01	16.7	17.6	15.3	16.6	17.3	15.9	17.4	18.1	16.6	9.4	11.2	7.6
09/17/01	16.2	17.1	15.3	16.2	16.7	15.9	17.4	17.9	16.8	9.5	11.3	7.6
09/18/01	17.2	18.0	15.8	16.1	16.4	15.6	16.6	17.6	15.8	9.7	11.5	7.8
09/19/01	17.6	18.0	16.3	16.3	16.7	15.7	16.7	17.6	16.0	9.9	11.5	8.1
09/20/01	17.8	18.4	16.8	16.4	17.3	15.7	17.0	18.1	16.1	10.0	11.8	8.2
09/21/01	17.7	18.5	16.1	16.6	17.0	15.7	17.1	18.1	16.1	9.8	11.5	7.9
09/22/01	18.0	18.5	16.9	16.5	16.7	15.9	17.0	17.7	16.3	9.9	11.3	8.2
09/23/01	18.0	18.5	16.6	16.6	17.6	16.0	17.1	17.7	16.3	9.5	10.9	8.1
09/24/01	18.0	18.7	16.6	16.5	16.8	15.9	17.0	17.4	16.3	9.3	10.9	7.5
09/25/01	18.4	18.9	17.6	16.7	17.0	16.2	17.1	17.7	16.5	10.6	12.1	9.5
09/26/01	18.3	18.9	17.1	16.8	17.0	16.2	17.1	17.6	16.5	9.4	10.9	7.6
09/27/01	18.3	18.9	16.6	16.8	17.1	16.0	17.3	17.7	16.5	9.0	10.6	7.3
09/28/01	18.4	18.9	16.8	16.9	17.1	16.5	17.2	17.7	16.8	8.6	10.1	7.0
09/29/01	18.1	18.9	16.6	17.0	17.3	16.7	17.6	18.4	16.9	8.5	10.1	6.8
09/30/01	17.9	19.0	15.5	16.9	17.3	16.4	17.6	18.5	16.6	8.6	9.9	7.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Powerhouse 2A Tailrace			Tunnel 8 Intake			Powerhouse 8 Tailrace			Home Camp Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	18.2	18.9	16.8	17.1	17.3	16.7	17.6	18.1	16.9	9.2	10.7	7.6
10/02/01	18.4	19.0	17.2	17.2	17.5	16.7	17.6	18.1	17.1	9.3	10.6	7.8
10/03/01	18.5	19.0	16.9	17.4	17.6	17.0	17.8	18.2	17.3	9.4	10.6	7.8
10/04/01	18.6	18.9	17.7	17.4	18.3	17.0	17.7	18.2	17.3	9.3	10.4	7.9
10/05/01	18.4	18.9	16.9	17.4	17.8	17.0	17.8	18.4	17.4	8.9	10.1	7.8
10/06/01	18.4	18.9	17.4	17.2	17.5	16.8	17.7	17.9	17.1	7.9	9.2	6.5
10/07/01	17.8	18.9	13.5	17.2	17.5	16.8	17.6	17.9	17.1	7.3	8.5	5.8
10/08/01	16.5	17.6	13.6	16.6	17.3	15.7	17.2	17.9	16.1	7.6	8.8	6.2
10/09/01	16.9	17.4	15.5	16.6	16.7	16.4				7.0	8.1	5.4
10/10/01	16.9	17.6	15.8	16.5	16.7	16.0	17.1	18.1	16.5	6.5	7.8	5.0
10/11/01	16.9	17.9	15.3	16.5	16.7	16.0	17.2	18.1	16.6	6.5	7.8	5.3
10/12/01	17.1	17.7	16.3	16.1	16.4	15.9	16.9	17.7	16.1	6.5	7.8	5.0
10/13/01	17.0	17.6	16.6	16.0	16.4	15.9	16.8	17.7	16.1	6.3	7.6	4.7
10/14/01	16.8	17.4	15.5	16.1	16.7	15.7	16.8	17.4	16.1	6.2	7.5	4.7
10/15/01	17.0	17.6	16.3	16.0	16.2	15.9	16.7	17.4	16.1			
10/16/01	16.8	17.6	14.9	15.9	16.0	15.7	16.6	17.4	16.1			
10/17/01	16.3	17.4	13.6	15.8	15.9	15.6	16.5	17.1	16.0			
10/18/01	15.8	17.2	13.9	15.7	15.7	15.6	16.3	16.9	15.8			
10/19/01	15.6	17.2	13.8	15.6	15.7	15.4	16.3	16.8	15.8			
10/20/01	16.2	17.2	13.9	15.6	16.4	15.4	16.3	17.4	15.8			
10/21/01	16.6	17.1	16.1	15.4	15.9	15.2	16.2	16.8	15.5			
10/22/01	16.0	16.5	13.9	15.4	15.6	15.2	15.9	16.3	15.5			
10/23/01	16.3	17.1	13.5	15.4	16.0	15.2	15.9	16.5	15.5			
10/24/01	16.4	16.9	15.7	15.1	15.2	14.9	15.6	16.0	15.4			
10/25/01	16.3	16.8	15.3	15.0	15.1	14.8	15.6	16.1	15.2			
10/26/01	16.3	16.8	14.6	14.9	15.2	14.6	15.5	16.0	15.0			
10/27/01	16.1	16.5	15.0	15.0	15.4	14.6	15.5	15.8	15.0			
10/28/01	16.0	16.5	15.2	14.8	15.4	14.6	15.3	15.7	14.9			
10/29/01	16.1	16.8	14.7	14.6	14.8	14.4	15.0	15.4	14.9			
10/30/01	15.3	16.3	11.8	14.5	14.8	14.3	14.9	15.2	14.7			
10/31/01	14.2	15.7	11.5	14.3	14.8	13.8	14.8	15.2	14.6			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01				4.6	7.9	2.8	2.9	5.7	1.5			
05/02/01				3.7	6.5	2.0	2.6	4.9	1.5			
05/03/01				2.9	6.1	0.9	2.2	4.9	0.5			
05/04/01				3.6	7.0	1.3	2.7	5.5	0.8			
05/05/01				4.7	8.1	2.6	3.4	6.3	1.6			
05/06/01				5.2	8.8	2.9	3.7	7.0	1.9			
05/07/01				5.8	9.3	3.7	3.9	7.1	2.4			
05/08/01				5.8	9.5	3.7	4.0	7.4	2.3			
05/09/01				6.0	9.6	3.9	4.2	7.6	2.4			
05/10/01				6.2	10.1	3.9	4.5	8.0	2.4			
05/11/01				6.5	10.2	4.5	4.7	8.2	2.9			
05/12/01				5.9	7.3	4.8	4.3	5.5	3.4			
05/13/01				5.8	7.8	4.0	4.2	5.9	2.7			
05/14/01				6.2	10.2	3.6	4.9	8.8	2.3			
05/15/01				6.9	10.4	4.5	5.6	8.8	3.2			
05/16/01				7.8	11.6	5.1	6.3	10.0	3.8			
05/17/01				7.7	11.5	5.1	6.4	10.4	3.7			
05/18/01				7.3	11.5	4.7	6.2	9.7	3.4			
05/19/01	6.2	10.3	3.6	7.7	11.5	5.0	6.8	10.7	3.8	7.1	11.7	3.6
05/20/01	6.7	10.9	3.9	8.1	12.1	5.3	7.4	11.4	4.3	7.8	12.6	4.1
05/21/01	7.5	11.8	4.4	8.9	12.9	5.9	8.2	12.4	4.9	8.7	13.5	4.7
05/22/01	8.0	12.0	5.0	9.3	12.6	6.7	8.3	11.3	5.5	9.4	13.8	5.6
05/23/01	8.3	12.6	5.2	9.5	13.3	6.7	8.7	12.5	5.5	9.9	14.3	5.9
05/24/01	8.4	12.6	5.3	9.5	13.2	6.7	9.0	12.7	5.9	10.0	14.5	6.3
05/25/01	8.5	12.8	5.5	9.4	13.2	6.8	9.1	12.8	6.0	10.0	14.3	6.6
05/26/01	8.0	11.7	5.2	8.6	11.9	6.1	8.5	11.7	5.7	9.3	13.4	6.1
05/27/01	8.1	11.8	5.2	8.5	12.1	5.9	8.4	11.9	5.4	9.2	13.4	5.9
05/28/01	8.1	11.5	5.3	8.4	11.6	5.9	8.3	11.4	5.5	9.1	12.8	6.1
05/29/01	8.7	12.3	5.7	9.0	12.4	6.2	9.1	12.5	5.9	10.0	14.3	6.6
05/30/01	9.6	13.4	6.4	9.9	13.5	7.1	10.1	13.5	7.0	10.9	15.1	7.6
05/31/01	10.5	14.3	7.4	10.7	14.3	7.9	10.9	14.4	7.7	11.6	15.9	8.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	10.5	14.0	7.7	10.6	13.9	8.1	10.8	13.9	8.0	11.4	15.4	8.6
06/02/01	9.2	12.6	7.0	9.1	12.4	7.0	9.3	12.2	7.1	10.0	13.8	7.8
06/03/01	7.8	11.4	4.7	7.6	11.3	4.7	7.7	11.0	4.8	8.5	12.6	5.3
06/04/01	8.2	11.7	5.2	8.0	11.5	5.1	8.1	11.3	5.1	8.8	12.8	5.8
06/05/01	8.5	12.0	5.5	8.3	11.8	5.4	8.5	11.6	5.5	9.1	13.1	6.1
06/06/01	9.7	13.7	6.6	9.6	13.5	6.5	9.8	13.3	6.5	10.2	14.6	7.0
06/07/01	10.2	13.8	7.0	9.9	13.5	7.0	10.1	13.1	7.1	10.6	14.8	7.5
06/08/01	9.9	13.7	6.7	9.6	13.2	6.7	9.7	12.8	6.5	10.2	14.3	7.2
06/09/01	10.0	13.5	6.9	9.7	13.2	6.8	9.8	13.0	6.8	10.2	14.3	7.3
06/10/01	10.1	13.7	7.4	9.7	13.2	7.1	9.8	12.8	7.1	10.2	14.3	7.6
06/11/01	9.6	13.1	6.7	9.3	12.4	6.5	9.3	11.9	6.5	9.8	13.5	6.9
06/12/01	9.6	13.4	6.9	9.2	12.4	6.7	9.3	12.1	6.6	9.8	13.7	7.0
06/13/01	8.7	12.5	5.7	8.2	11.8	5.1	8.6	11.4	5.5	8.9	13.1	5.6
06/14/01	9.3	13.1	6.4	8.8	12.4	5.9	9.0	12.2	6.0	9.4	13.5	6.4
06/15/01	10.0	14.0	6.9	9.5	13.3	6.5	9.6	13.0	6.5	10.0	14.3	6.7
06/16/01	10.4	14.3	7.0	9.9	13.5	6.7	10.1	13.3	6.8	10.5	14.6	7.2
06/17/01	10.7	14.3	7.8	10.1	13.5	7.3	10.3	13.1	7.4	10.7	14.5	7.6
06/18/01	10.3	14.3	7.0	9.8	13.5	6.7	10.0	13.1	7.0	10.3	14.5	7.0
06/19/01	10.5	14.5	7.4	10.1	13.8	7.1	10.1	13.3	7.3	10.5	14.5	7.2
06/20/01	11.3	15.3	8.3	10.9	14.4	8.1	10.9	14.1	8.0	11.2	15.1	8.1
06/21/01	12.0	16.0	9.0	11.5	15.0	8.5	11.6	14.7	8.8	11.9	15.6	8.9
06/22/01	12.6	16.5	9.8	12.1	15.4	9.6	12.2	15.2	9.7	12.3	15.7	9.7
06/23/01	12.6	16.5	10.0	11.9	15.4	9.6	12.1	15.2	9.7	12.1	15.6	9.7
06/24/01	11.4	14.6	9.2	10.7	13.6	8.7	11.0	13.5	9.0	10.8	13.7	8.7
06/25/01	10.4	14.1	7.8	9.8	13.3	7.1	10.0	13.0	7.4	9.9	13.7	7.0
06/26/01	11.1	14.5	8.9	10.7	14.1	8.5	10.8	13.5	8.6	10.8	14.1	8.6
06/27/01	11.6	15.4	9.7	11.0	14.3	9.5	11.3	14.1	9.6	11.1	14.1	9.3
06/28/01	11.3	15.6	8.3	10.9	14.7	7.8	10.9	14.4	8.0	10.9	14.6	7.6
06/29/01	12.0	16.0	9.0	11.6	15.5	8.5	11.6	14.9	8.8	11.7	15.4	8.4
06/30/01	12.3	16.4	9.2	11.9	15.7	8.8	12.2	15.5	9.4	12.1	15.6	8.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	12.9	16.8	10.1	12.4	16.1	9.6	12.5	15.8	9.7	12.5	15.9	9.5
07/02/01	13.7	17.8	10.9	13.2	16.9	10.4	13.3	16.7	10.7	13.3	16.7	10.6
07/03/01	14.5	18.4	12.1	13.9	17.3	11.6	13.5	16.3	11.4	14.2	17.0	11.7
07/04/01	14.3	16.0	13.4	13.6	15.8	12.6	13.4	14.5	11.9	14.1	15.2	13.1
07/05/01	14.4	18.3	12.1	13.7	16.9	11.6	13.6	16.3	11.6	13.7	16.4	11.5
07/06/01	13.4	14.1	12.8	12.8	13.3	12.1	12.7	13.1	12.2	12.8	13.5	12.0
07/07/01	12.8	13.4	12.3	11.9	12.4	11.5	12.0	12.5	11.7	12.4	13.2	11.5
07/08/01	12.9	15.7	11.1	11.9	14.7	10.2	11.9	13.8	10.4	12.4	15.1	10.6
07/09/01	13.0	17.0	10.3	12.1	15.8	9.5	11.9	14.5	9.6	12.5	16.2	9.7
07/10/01	13.4	17.3	11.1	12.2	15.0	10.1	12.0	14.5	9.9	12.6	15.1	10.6
07/11/01	13.3	17.1	11.1	12.3	16.0	10.1	12.1	15.0	9.7	12.4	15.2	10.1
07/12/01	12.6	16.7	10.0	11.8	15.5	9.1	11.8	14.9	9.3	11.8	14.9	9.0
07/13/01	12.0	15.1	9.7	11.2	14.1	8.8	11.2	13.6	9.0	11.1	13.5	8.6
07/14/01	12.1	16.0	9.7	11.3	15.2	8.8	11.3	14.2	8.8	11.1	14.0	8.7
07/15/01	11.6	15.6	8.9	10.7	14.4	7.9	10.7	13.6	8.0	10.5	13.4	7.8
07/16/01	11.4	15.3	8.9	10.6	14.4	7.9	10.5	13.3	7.9	10.4	13.2	7.8
07/17/01	11.5	15.4	8.9	10.9	14.9	7.9	10.7	13.8	8.0	10.6	13.4	8.0
07/18/01	11.7	15.7	9.4	11.2	15.2	8.7	11.1	13.9	8.5	10.8	13.5	8.3
07/19/01	11.5	15.6	8.9	10.8	14.7	7.9	10.7	13.6	8.0	10.5	13.2	8.0
07/20/01	11.6	15.7	9.0	11.0	15.0	8.4	10.8	13.8	8.2	10.6	13.5	8.1
07/21/01	11.8	15.9	9.4	11.1	15.4	8.5	10.8	13.8	8.2	10.7	13.4	8.4
07/22/01	11.6	15.7	8.9	10.9	15.2	7.9	10.7	13.8	7.9	10.4	13.2	7.8
07/23/01	11.7	15.9	9.0	11.2	15.2	8.5	10.8	13.9	8.3	10.6	13.2	8.1
07/24/01	12.3	16.5	9.7	11.7	16.0	9.0	11.4	14.4	8.6	11.2	13.8	8.7
07/25/01	12.9	17.1	10.3	12.4	16.6	9.5	11.9	14.9	9.1	11.9	14.5	9.3
07/26/01	13.8	18.1	11.2	13.4	17.7	10.9	12.8	16.0	10.0	12.8	15.4	10.6
07/27/01	13.5	17.8	10.8	12.6	16.6	9.8	12.5	15.5	9.7	12.1	14.3	9.8
07/28/01	13.1	17.5	10.4	12.1	16.3	9.5	12.0	15.0	9.1	11.6	13.7	9.3
07/29/01	12.8	17.5	10.1	11.9	16.5	9.1	11.7	14.9	8.8	11.2	13.5	8.9
07/30/01	12.4	16.7	10.0	11.7	15.8	9.1	11.3	14.2	8.5	10.9	12.9	8.9
07/31/01	12.6	17.3	9.8	12.0	16.5	9.1	11.5	14.7	8.6	11.3	13.7	8.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	13.0	17.5	10.3	12.4	16.9	9.8	12.0	15.2	9.1	11.6	13.8	9.5
08/02/01	13.4	17.8	10.8	12.9	17.1	10.4	12.4	15.5	9.6	12.0	14.0	10.0
08/03/01	13.6	17.8	11.2	13.1	17.4	10.7	12.6	15.6	10.0	12.1	14.0	10.4
08/04/01	12.9	17.3	10.3	11.8	15.8	9.1	11.6	14.4	8.6	10.9	12.6	8.7
08/05/01	12.5	17.3	9.4	11.7	16.5	8.7	11.4	14.7	8.3	10.6	12.9	8.1
08/06/01	13.0	17.6	10.1	12.5	17.1	9.5	11.7	15.2	8.8	11.4	13.7	9.0
08/07/01	14.1	18.6	11.4	13.7	18.1	11.2	12.6	15.6	10.0	12.8	14.6	10.9
08/08/01	14.6	19.1	12.0	14.0	18.4	11.6	13.2	16.3	10.7	13.2	14.8	11.5
08/09/01	14.4	18.6	11.8	13.9	18.4	11.5	13.2	16.3	10.5	12.8	14.3	11.2
08/10/01	14.4	18.6	11.8	13.9	18.4	11.5	13.2	16.3	10.5	12.7	14.1	11.1
08/11/01	14.0	18.1	11.2	13.4	18.1	10.5	12.8	16.0	9.7	12.2	13.8	10.3
08/12/01	13.8	17.8	11.1	13.1	17.7	10.2	12.6	15.8	9.7	12.0	13.4	10.1
08/13/01	13.5	17.5	10.9	12.9	17.4	10.4	12.3	15.5	9.4	11.6	12.9	10.0
08/14/01	13.4	17.5	10.8	12.9	17.4	10.4	12.3	15.5	9.4	11.5	12.8	10.0
08/15/01	13.1	17.0	10.6	12.7	16.6	10.2	12.0	15.0	9.4	11.4	12.8	9.8
08/16/01	13.2	17.1	10.6	12.8	17.4	9.9	12.1	15.3	9.3	11.2	12.6	9.5
08/17/01	13.3	17.0	10.6	13.0	17.4	10.2	12.1	15.5	9.3	11.4	12.9	9.7
08/18/01	13.6	17.3	11.1	13.4	17.7	10.7	12.4	15.5	9.6	11.7	13.1	10.1
08/19/01	13.6	17.5	11.1	13.2	17.7	10.5	12.2	15.5	9.6	11.5	12.8	10.1
08/20/01	13.1	16.7	10.8	12.6	17.3	10.1	11.8	15.0	9.1	10.9	12.1	9.7
08/21/01	12.3	15.7	10.1	11.7	16.0	9.5	11.0	14.1	8.6	10.1	11.1	8.9
08/22/01	11.8	15.3	9.5	11.3	15.2	8.8	10.4	13.3	8.0	9.5	10.6	8.3
08/23/01	11.4	15.1	8.6	11.0	15.5	8.1	10.1	13.3	7.3	9.0	10.4	7.3
08/24/01	11.3	14.9	8.6	11.1	15.5	7.9	10.1	13.3	7.1	9.1	10.6	7.3
08/25/01	12.1	15.9	9.4	12.0	16.5	9.1	10.9	14.1	8.0	9.8	11.2	8.3
08/26/01	12.7	16.4	10.0	12.6	17.1	9.9	11.4	14.7	8.6	10.4	11.7	8.9
08/27/01	12.9	16.5	10.3	12.9	17.4	10.2	11.6	14.9	9.0	10.7	11.8	9.3
08/28/01	13.1	16.8	10.4	13.1	17.7	10.2	11.8	15.2	9.0	10.9	12.1	9.3
08/29/01	13.0	16.4	10.4	13.1	17.4	10.4	11.7	14.9	9.0	11.0	12.0	9.7
08/30/01	12.5	15.6	10.4	12.7	17.3	10.2	11.4	14.5	9.0	10.6	11.5	9.5
08/31/01	12.2	15.1	10.0	12.2	16.6	9.6	11.0	14.1	8.3	10.1	11.1	8.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	12.0	15.1	9.8	12.0	16.5	9.1	10.8	13.9	8.2	9.8	10.7	8.4
09/02/01	12.1	15.1	9.8	12.2	16.8	9.5	10.8	14.1	8.2	9.8	10.9	8.6
09/03/01	11.9	13.2	10.6	12.1	15.0	10.5	10.5	13.0	9.1	10.3	10.9	9.5
09/04/01	12.0	14.9	9.8	12.2	16.6	9.5	10.6	13.6	8.0	10.0	11.1	8.7
09/05/01	12.1	14.9	10.1	12.2	16.6	9.9	10.8	13.8	8.5	10.0	10.9	9.0
09/06/01	11.2	14.0	9.0	11.1	15.4	8.4	9.7	12.7	7.1	8.8	9.7	7.5
09/07/01	11.2	14.0	9.0	11.2	15.7	8.5	9.8	12.8	7.3	8.9	9.8	7.6
09/08/01	11.1	14.0	8.9	11.2	15.7	8.5	9.7	12.8	7.1	8.7	9.8	7.5
09/09/01	11.0	13.7	8.9	11.0	15.4	8.5	9.6	12.7	7.1	8.5	9.5	7.3
09/10/01	11.0	13.5	8.9	11.1	14.9	8.5	9.6	12.7	7.1	8.6	9.7	7.5
09/11/01	11.1	12.6	10.0	11.1	12.9	9.8	10.0	12.2	8.5	9.3	10.1	8.7
09/12/01	10.6	13.1	8.7	10.6	14.7	8.2	9.5	12.4	7.3	8.5	9.2	7.5
09/13/01	10.0	12.6	7.8	10.0	14.1	7.1	8.7	11.4	6.0	7.4	8.4	6.1
09/14/01	9.7	12.5	7.5	9.9	14.3	7.1	8.5	11.4	5.9	7.2	8.3	5.9
09/15/01	9.7	12.3	7.7	9.9	14.1	7.3	8.4	11.3	5.9	7.1	8.1	5.9
09/16/01	9.7	12.1	7.7	9.9	13.9	7.5	8.3	11.1	5.9	7.1	8.1	6.1
09/17/01	9.8	12.3	7.8	10.1	14.3	7.6	8.4	11.1	6.0	7.3	8.3	6.1
09/18/01	10.0	12.5	8.0	10.4	14.6	7.9	8.7	11.4	6.5	7.6	8.6	6.4
09/19/01	10.1	12.5	8.1	10.5	14.6	8.1	8.8	11.4	6.5	7.8	8.7	6.6
09/20/01	10.3	12.8	8.4	10.9	15.0	8.5	9.1	11.9	7.0	8.1	9.0	7.0
09/21/01	10.2	12.5	8.3	10.6	14.6	8.1	8.9	11.6	6.6	7.8	8.7	6.7
09/22/01	10.2	12.3	8.4	10.5	13.9	8.2	8.8	11.4	6.6	7.9	8.9	6.9
09/23/01	9.9	11.7	8.3	9.9	12.2	8.1	8.5	10.7	6.5	7.8	8.7	6.7
09/24/01	9.8	12.0	7.7	9.8	13.3	7.5	8.5	13.6	6.0	7.3	8.4	6.1
09/25/01	10.8	12.8	9.7	11.1	14.9	9.3	9.5	12.4	7.9	8.5	9.3	7.8
09/26/01	9.8	12.0	7.8	10.0	13.9	7.5	8.5	11.1	6.2	7.4	8.3	6.3
09/27/01	9.5	11.7	7.8	9.8	13.9	7.6	8.2	11.0	6.0	7.1	8.0	6.3
09/28/01	9.1	11.1	7.4	9.3	13.0	7.0	7.7	10.4	5.5	6.6	7.5	5.6
09/29/01	9.1	11.4	7.4	9.6	13.5	7.1	7.7	10.5	5.5	6.6	7.5	5.6
09/30/01	9.3	11.2	7.5	9.6	12.4	7.3	8.0	10.4	5.7	6.9	8.0	5.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Line Creek			Potter Creek			Rancheria Creek			Coon Creek		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	9.6	11.4	8.0	9.9	12.9	7.9	8.3	10.4	6.3	7.5	8.4	6.4
10/02/01	10.0	12.0	8.1	10.3	13.3	8.1	8.6	11.1	6.5	7.7	8.4	6.9
10/03/01	10.0	11.8	8.3	10.4	13.9	8.2	8.6	11.0	6.5	7.7	8.4	6.7
10/04/01	9.8	11.7	8.3	10.3	13.8	8.1	8.4	10.8	6.5	7.6	8.3	6.9
10/05/01	9.5	11.2	8.1	9.8	13.3	8.1	8.0	10.5	6.5	7.3	7.8	6.7
10/06/01	8.6	10.3	7.0	8.8	12.1	6.8	7.1	9.4	5.4	6.3	6.9	5.5
10/07/01	8.1	9.8	6.3	8.4	11.8	6.1	6.6	8.8	4.6	5.6	6.4	4.7
10/08/01	8.2	9.7	6.9	8.5	11.2	6.7	7.0	9.1	5.2	5.9	6.6	5.0
10/09/01	7.6	9.0	5.8	7.7	10.7	5.1	6.1	8.0	4.1	5.1	6.1	4.1
10/10/01	7.3	8.9	5.5	7.3	10.5	5.0	5.6	7.9	3.7	4.6	5.3	3.4
10/11/01	7.4	9.0	5.8	7.3	9.6	5.6	5.8	7.9	4.0	4.9	5.8	4.1
10/12/01	7.3	9.0	5.7	7.6	11.2	5.3	5.8	8.0	3.8	4.9	5.8	3.9
10/13/01	7.2	9.0	5.5	7.6	11.2	5.1	5.5	7.7	3.5	4.6	5.5	3.6
10/14/01	7.2	8.9	5.5	7.5	10.4	5.3	5.4	7.6	3.4	4.5	5.3	3.4
10/15/01				7.8	11.0	5.7	5.8	7.9	4.0	4.8	5.6	3.9
10/16/01				7.9	11.0	5.7	5.9	8.0	4.1	4.9	5.8	4.1
10/17/01				7.6	10.1	5.9	5.8	7.4	4.3	4.9	5.5	4.2
10/18/01				7.4	10.7	5.3	5.4	7.4	3.7	4.4	5.2	3.6
10/19/01				7.3	9.5	5.6	5.4	7.4	3.7	4.5	5.3	3.6
10/20/01				7.3	10.2	5.3	5.5	7.1	3.8	4.5	5.0	3.6
10/21/01				6.9	9.5	5.3	5.2	7.1	3.7	4.3	4.9	3.6
10/22/01				6.5	9.6	4.7	4.6	6.3	3.1	3.7	4.2	3.0
10/23/01				6.9	10.1	5.1	4.6	6.5	3.2	3.9	4.5	3.3
10/24/01				6.5	9.6	4.2	4.3	8.2	2.4	3.4	4.2	2.3
10/25/01												
10/26/01												
10/27/01												
10/28/01												
10/29/01												
10/30/01												
10/31/01												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
05/01/01	2.3	4.7	1.1
05/02/01	2.0	4.1	0.9
05/03/01	1.9	4.4	0.4
05/04/01	2.4	5.2	0.6
05/05/01	2.9	5.8	1.2
05/06/01	3.0	6.1	1.4
05/07/01	3.2	6.3	1.7
05/08/01	3.5	6.7	1.7
05/09/01	3.7	7.0	1.7
05/10/01	4.0	7.5	1.9
05/11/01	4.3	7.5	2.2
05/12/01	3.6	5.0	2.5
05/13/01	3.8	5.3	2.3
05/14/01	4.9	8.1	2.0
05/15/01	5.5	8.3	3.0
05/16/01	6.1	9.2	3.4
05/17/01	6.5	9.8	3.4
05/18/01	6.5	9.2	3.6
05/19/01	7.1	10.3	3.9
05/20/01	8.2	11.2	5.0
05/21/01	9.2	12.1	5.9
05/22/01	9.4	11.4	6.7
05/23/01	10.1	13.1	7.3
05/24/01	10.5	12.8	8.0
05/25/01	11.0	13.5	8.6
05/26/01	10.8	12.8	8.6
05/27/01	10.6	12.9	8.3
05/28/01	10.7	12.8	8.4
05/29/01	11.6	14.1	8.9
05/30/01	12.5	14.9	10.0
05/31/01	13.5	16.0	10.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
06/01/01	13.5	15.7	11.2
06/02/01	12.4	14.6	10.4
06/03/01	10.9	13.4	8.1
06/04/01	11.1	13.5	8.4
06/05/01	11.6	14.1	8.9
06/06/01	12.8	15.9	9.8
06/07/01	13.3	16.2	10.6
06/08/01	13.1	16.0	10.3
06/09/01	13.3	16.3	10.4
06/10/01	13.5	16.7	10.7
06/11/01	13.0	16.0	10.4
06/12/01	13.1	16.3	10.3
06/13/01	12.4	15.6	9.7
06/14/01	12.8	16.3	9.8
06/15/01	13.5	17.5	10.1
06/16/01	14.2	18.1	10.7
06/17/01	14.5	18.4	11.4
06/18/01	14.4	18.9	10.9
06/19/01	14.7	19.4	11.1
06/20/01	15.4	20.4	11.7
06/21/01	16.3	21.3	12.4
06/22/01	17.0	22.2	13.2
06/23/01	16.9	22.5	13.4
06/24/01	15.8	20.9	12.4
06/25/01	15.0	21.0	10.9
06/26/01	15.4	20.7	12.0
06/27/01	16.0	22.0	12.6
06/28/01	16.0	22.7	11.4
06/29/01	16.8	23.5	12.0
06/30/01	17.5	24.6	12.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
07/01/01	18.1	25.1	13.2
07/02/01	19.0	26.3	14.1
07/03/01	19.5	26.5	15.1
07/04/01	17.8	20.9	16.3
07/05/01	18.0	23.3	14.8
07/06/01	15.9	17.0	14.6
07/07/01	14.3	14.8	13.8
07/08/01	14.8	18.6	12.8
07/09/01	15.4	19.9	12.1
07/10/01	14.6	17.1	12.3
07/11/01	15.8	21.0	12.1
07/12/01	16.2	22.5	12.1
07/13/01	15.7	20.7	12.0
07/14/01	16.1	23.0	11.7
07/15/01	15.9	23.0	11.4
07/16/01	15.8	23.0	11.1
07/17/01	16.0	23.5	11.1
07/18/01	16.5	24.0	11.5
07/19/01	16.3	23.7	11.2
07/20/01	16.5	24.4	11.4
07/21/01	16.7	24.7	11.4
07/22/01	16.6	24.7	10.9
07/23/01	16.8	24.7	11.4
07/24/01	17.6	25.4	11.8
07/25/01	18.4	26.1	12.6
07/26/01	19.4	27.3	13.7
07/27/01	19.0	26.5	13.4
07/28/01	18.6	26.5	12.8
07/29/01	18.1	26.5	12.4
07/30/01	17.6	25.4	12.1
07/31/01	18.0	26.3	12.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
08/01/01	18.5	26.6	12.8
08/02/01	19.0	27.2	13.4
08/03/01	18.9	27.2	13.8
08/04/01	17.1	28.8	11.8
08/05/01	17.7	36.8	8.7
08/06/01	19.3	37.9	11.4
08/07/01	20.9	38.1	13.7
08/08/01	21.0	37.9	14.3
08/09/01	20.3	37.7	13.7
08/10/01	19.9	38.1	12.8
08/11/01	19.5	38.1	11.7
08/12/01	19.0	38.1	11.2
08/13/01	18.5	37.3	11.1
08/14/01	18.7	38.1	11.4
08/15/01	18.6	37.7	10.9
08/16/01	18.6	38.1	10.6
08/17/01	18.8	38.1	11.4
08/18/01	18.9	38.1	11.5
08/19/01	18.1	38.1	10.7
08/20/01	16.7	36.4	9.8
08/21/01	15.4	34.4	8.9
08/22/01	14.7	32.2	8.0
08/23/01	14.3	34.8	6.3
08/24/01	14.8	33.5	7.0
08/25/01	16.7	37.3	9.3
08/26/01	17.6	37.9	10.7
08/27/01	17.7	37.7	10.6
08/28/01	18.0	38.1	10.6
08/29/01	17.3	37.3	10.4
08/30/01	16.1	34.6	10.1
08/31/01	15.5	34.8	8.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
09/01/01	15.3	35.6	8.7
09/02/01	16.0	35.8	9.5
09/03/01	14.3	22.7	11.1
09/04/01	15.8	36.8	9.3
09/05/01	15.6	34.6	10.1
09/06/01	14.2	37.3	7.0
09/07/01	14.7	37.9	7.7
09/08/01	14.7	37.3	7.8
09/09/01	14.9	38.1	8.1
09/10/01	14.5	32.8	7.7
09/11/01	14.5	24.9	10.3
09/12/01	13.2	35.4	6.4
09/13/01	12.0	36.0	4.7
09/14/01	10.2	12.9	7.6
09/15/01	10.1	12.4	7.6
09/16/01	10.1	12.4	7.9
09/17/01	10.4	13.0	7.9
09/18/01	10.9	13.5	8.5
09/19/01	11.1	13.2	8.8
09/20/01	11.3	13.5	9.3
09/21/01	11.0	13.2	8.7
09/22/01	10.9	13.0	8.7
09/23/01	10.9	13.0	8.7
09/24/01	10.1	12.2	7.7
09/25/01	11.6	13.2	10.4
09/26/01	9.9	12.1	7.6
09/27/01	9.5	11.5	7.4
09/28/01	8.7	10.8	6.5
09/29/01	9.1	11.5	7.0
09/30/01	9.8	12.1	7.6

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, 2001

Date	Big Creek upstream of Huntington Lake		
	Mean	Maximum	Minimum
10/01/01	10.6	12.7	8.7
10/02/01	10.6	12.2	8.7
10/03/01	10.3	11.8	8.5
10/04/01	10.1	11.5	8.4
10/05/01	9.8	11.3	8.4
10/06/01	8.4	10.2	6.5
10/07/01	7.7	9.7	5.6
10/08/01	8.5	10.7	6.5
10/09/01	7.1	8.8	5.0
10/10/01	6.7	8.8	4.6
10/11/01	7.4	9.6	5.4
10/12/01	6.8	9.0	5.0
10/13/01	6.4	8.5	4.3
10/14/01	6.6	8.7	4.6
10/15/01	7.1	9.0	5.4
10/16/01	7.3	9.1	5.6
10/17/01	7.0	8.4	5.4
10/18/01	6.3	8.1	4.6
10/19/01	6.8	8.5	5.1
10/20/01	6.7	8.1	5.0
10/21/01	6.3	7.6	4.8
10/22/01	5.5	7.0	4.2
10/23/01	5.6	7.1	4.3
10/24/01	5.5	7.4	4.2
10/25/01			
10/26/01			
10/27/01			
10/28/01			
10/29/01			
10/30/01			
10/31/01			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek Downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00									
05/02/00									
05/03/00									
05/04/00									
05/05/00									
05/06/00									
05/07/00									
05/08/00									
05/09/00									
05/10/00									
05/11/00									
05/12/00									
05/13/00									
05/14/00									
05/15/00									
05/16/00									
05/17/00									
05/18/00									
05/19/00									
05/20/00									
05/21/00									
05/22/00									
05/23/00									
05/24/00									
05/25/00									
05/26/00									
05/27/00									
05/28/00									
05/29/00									
05/30/00									
05/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek Downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00							8.64	9.30	8.07
06/02/00							8.75	9.30	8.37
06/03/00							9.00	9.61	8.37
06/04/00							9.24	9.92	8.68
06/05/00							9.42	10.08	8.99
06/06/00							9.50	10.08	9.14
06/07/00							9.75	10.39	9.14
06/08/00							9.47	9.77	9.14
06/09/00							9.54	10.08	9.30
06/10/00							9.60	10.08	9.30
06/11/00							9.78	10.39	9.30
06/12/00							10.01	10.55	9.61
06/13/00							10.13	10.71	9.77
06/14/00	13.42	17.76	9.78				10.39	11.02	9.92
06/15/00	14.43	18.41	11.02				10.40	10.86	10.08
06/16/00	15.25	19.22	12.11				10.49	11.02	10.24
06/17/00	15.25	19.06	12.11				10.59	11.17	10.39
06/18/00	14.80	18.57	11.79				10.48	11.17	10.24
06/19/00	14.03	18.08	10.40				10.50	11.17	10.24
06/20/00	14.67	18.73	11.18				10.62	11.32	10.39
06/21/00	15.04	19.22	11.33				10.73	11.32	10.39
06/22/00	15.44	19.38	11.95				11.02	11.48	10.71
06/23/00	15.18	18.89	11.79				10.91	11.48	10.71
06/24/00	14.89	18.89	11.18				10.87	11.48	10.55
06/25/00	14.92	18.08	11.64				10.89	11.48	10.71
06/26/00	14.91	18.73	11.48				10.92	11.48	10.55
06/27/00	14.76	18.89	11.18				11.01	11.48	10.71
06/28/00	15.73	19.87	12.11	16.49	18.85	14.55	11.04	11.48	10.71
06/29/00	16.20	20.19	12.57	16.70	19.01	14.55	11.12	11.63	10.86
06/30/00	16.39	20.03	13.04	16.84	18.85	15.18	11.52	12.10	11.17

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek Downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	15.09	18.73	11.48	15.00	16.76	13.01	11.44	11.94	11.17
07/02/00	14.21	18.08	10.40	13.73	15.97	11.45	11.43	11.94	11.17
07/03/00	14.06	17.60	10.87	13.73	15.66	12.07	11.38	11.79	11.17
07/04/00	13.10	16.80	9.47	12.57	14.55	10.37	11.37	11.94	11.02
07/05/00	13.06	16.64	9.62	12.59	14.71	10.53	11.57	12.26	11.17
07/06/00	13.38	17.12	9.78	13.08	15.34	11.14	11.77	12.41	11.32
07/07/00	13.42	17.12	9.62	12.92	15.18	10.53	11.75	12.26	11.48
07/08/00	13.56	17.28	9.78	13.00	15.34	10.84	11.75	12.26	11.48
07/09/00	13.94	17.60	10.09	13.37	15.66	11.14	11.85	12.41	11.48
07/10/00	14.71	18.24	11.18	14.07	16.29	12.07	11.85	12.41	11.63
07/11/00	15.32	18.89	11.64	14.85	17.08	12.85	11.92	12.41	11.63
07/12/00	15.69	19.22	11.95	15.31	17.40	13.47	12.17	12.72	11.79
07/13/00	15.42	19.06	11.48	14.77	17.08	12.54	12.22	12.72	11.94
07/14/00	15.28	18.73	11.33	14.61	16.76	12.38	12.28	12.72	11.94
07/15/00	15.90	19.22	12.26	14.93	16.92	13.01	12.24	12.72	11.94
07/16/00	16.19	19.22	13.19	15.29	17.24	13.62	12.21	12.72	11.94
07/17/00	15.67	18.89	11.95	14.86	16.76	12.85	12.17	12.72	11.94
07/18/00	15.45	18.89	11.48	14.44	16.60	12.23	12.22	12.72	11.94
07/19/00	15.38	18.73	11.33	14.28	16.44	11.92	12.33	12.88	11.94
07/20/00	15.68	19.06	11.48	14.62	16.76	12.38	12.55	13.34	12.10
07/21/00	15.83	19.38	11.64	14.73	17.08	12.54	12.75	13.34	12.41
07/22/00	16.05	19.54	12.11	14.85	17.08	12.54	12.75	13.19	12.57
07/23/00	15.88	19.38	11.79	14.62	16.76	12.38	12.77	13.34	12.41
07/24/00	16.43	19.87	12.73	14.94	17.08	13.01	13.16	13.65	12.72
07/25/00	16.40	20.03	12.73	14.99	16.92	13.01	13.49	14.11	12.88
07/26/00	16.30	20.03	12.57	15.00	16.92	13.16	13.66	14.11	13.19
07/27/00	15.92	19.87	11.95	14.56	16.60	12.38	14.06	14.74	13.34
07/28/00	15.54	19.54	11.48	14.22	16.13	12.07	14.35	14.89	13.80
07/29/00	15.84	19.54	11.95	14.49	16.60	12.54	14.54	15.22	14.11
07/30/00	17.35	21.01	13.81	15.69	17.72	13.93	14.78	15.38	14.27
07/31/00	17.98	21.67	14.27	16.66	18.52	15.02	15.27	15.85	14.58

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek Downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	18.95	22.34	16.17	17.51	19.01	16.13	15.86	16.48	15.22
08/02/00	17.74	20.51	15.22	17.11	18.04	15.97	15.77	16.33	15.53
08/03/00	17.55	21.01	14.58	17.11	18.85	15.66	15.80	16.33	15.53
08/04/00	17.88	21.84	14.43	17.52	19.33	15.82	15.94	16.48	15.53
08/05/00	17.52	21.67	13.81	17.05	18.68	15.18	16.08	16.64	15.69
08/06/00	17.41	21.51	13.96	16.91	18.52	15.50	16.22	16.80	15.85
08/07/00	16.89	21.17	13.50	16.48	17.88	15.02	16.38	16.96	16.01
08/08/00	16.31	20.68	12.73	15.98	17.40	14.39	15.99	16.48	15.69
08/09/00	15.78	20.19	11.95	15.29	16.60	13.62	15.95	16.48	15.69
08/10/00	15.05	19.71	11.02	14.46	15.97	12.69	15.38	15.69	15.06
08/11/00	14.50	19.22	10.24	14.09	15.66	12.38	15.24	15.85	14.89
08/12/00	14.33	19.22	9.93	14.13	15.66	12.38	15.37	15.85	14.89
08/13/00	14.40	19.38	10.40	14.19	15.66	12.54	15.61	16.17	15.06
08/14/00	14.17	19.22	9.93	14.11	15.66	12.54	15.70	16.33	15.38
08/15/00	15.09	19.87	11.33	14.67	16.29	13.16	16.03	16.64	15.53
08/16/00	15.43	20.19	11.64	15.20	16.60	13.77	16.14	16.64	15.85
08/17/00	15.45	20.19	11.64	15.37	16.60	14.08	16.27	16.80	15.85
08/18/00	14.23	19.22	10.24	14.72	15.82	13.47	16.16	16.64	15.85
08/19/00	12.94	17.92	8.69	13.71	14.87	12.38	16.04	16.48	15.85
08/20/00	12.60	17.76	8.38	13.16	14.39	11.76	16.09	16.64	15.85
08/21/00	12.53	17.60	8.23	13.09	14.39	11.76	16.34	16.80	15.85
08/22/00	12.78	17.60	8.54	13.23	14.55	11.76	16.44	16.80	16.17
08/23/00	13.44	18.08	9.62	13.68	15.02	12.38	16.49	16.96	16.17
08/24/00	13.38	17.92	9.00	13.78	15.02	12.38	16.93	17.61	16.17
08/25/00	15.29	19.71	11.79	14.94	16.29	13.93	17.11	17.61	16.64
08/26/00	16.33	20.51	13.34	15.95	17.24	14.87	17.18	17.61	16.96
08/27/00	15.52	20.03	11.79	16.06	17.24	15.02	17.14	17.61	16.80
08/28/00	14.92	19.06	11.48	15.85	16.44	15.02	16.92	17.44	16.64
08/29/00	14.64	15.53	13.81	15.40	16.13	15.02	17.03	17.44	16.64
08/30/00	14.36	16.32	13.19	14.80	15.34	14.39	16.96	17.28	16.80
08/31/00	12.42	14.43	10.24	14.05	14.71	13.32	16.86	17.44	16.48

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek Downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	10.73	12.26	9.78	12.55	13.93	11.30	16.47	16.64	16.33
09/02/00	10.07	11.02	9.00	10.93	11.45	10.37	16.27	16.48	15.85
09/03/00	10.17	11.64	8.54	10.72	11.45	9.90	15.60	15.85	15.38
09/04/00	9.26	11.79	6.84	10.30	11.45	9.13	15.50	16.01	15.22
09/05/00	9.50	13.81	6.22	10.02	11.45	8.67	15.77	16.33	15.38
09/06/00	9.52	13.96	5.90	9.86	11.14	8.51	16.15	16.64	15.69
09/07/00	9.79	14.12	5.90	9.99	11.45	8.67	15.82	16.17	15.53
09/08/00	10.56	14.74	7.15	10.62	11.92	9.43	16.37	17.12	15.53
09/09/00	10.30	14.58	6.68	10.76	11.92	9.59	16.70	17.44	16.01
09/10/00	10.41	14.90	6.68	10.99	12.23	9.74	15.96	16.48	15.53
09/11/00	10.24	14.74	6.37	11.11	12.23	9.90	16.30	17.12	15.53
09/12/00	10.07	13.66	6.37	10.80	11.61	9.90	16.72	17.44	16.17
09/13/00	12.31	16.17	9.16	11.80	13.32	10.68	16.69	17.12	16.33
09/14/00	12.83	16.80	9.62	13.01	14.24	11.92	16.79	17.44	16.17
09/15/00	12.34	16.64	8.84	13.40	14.55	12.38	17.04	17.77	16.48
09/16/00	11.13	15.37	7.31	12.69	13.62	11.61	16.31	16.64	16.01
09/17/00	11.12	15.37	7.31	12.60	13.62	11.61	15.82	16.01	15.53
09/18/00	11.45	15.53	7.61	12.96	14.08	12.07	15.94	16.48	15.53
09/19/00	11.88	15.69	8.23	13.21	14.08	12.38	16.94	17.77	15.85
09/20/00	12.37	16.32	8.84	13.59	14.71	12.69	17.57	18.25	16.80
09/21/00	12.15	15.85	9.00	13.69	14.55	12.85	17.58	18.25	16.80
09/22/00	9.54	11.48	8.08	12.31	13.77	11.30	17.14	17.93	16.48
09/23/00	9.08	11.79	6.22	10.61	11.30	10.06	15.94	16.48	15.69
09/24/00	9.06	12.88	5.90	10.40	11.45	9.43	15.43	15.69	15.06
09/25/00	9.02	12.88	5.74	10.51	11.45	9.59	15.10	15.38	14.89
09/26/00	8.75	12.26	5.43	10.40	11.14	9.59	15.05	15.38	14.89
09/27/00	8.83	12.57	5.59	10.48	11.45	9.74	15.04	15.38	14.89
09/28/00	9.01	12.57	5.74	10.61	11.45	9.90	15.04	15.38	14.89
09/29/00	9.29	12.88	5.90	10.67	11.61	9.90	15.06	15.53	14.89
09/30/00	9.26	12.88	5.90	10.81	11.76	10.06	15.07	15.38	14.89

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek Downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	9.02	12.42	5.90	10.87	11.76	10.22	15.06	15.38	14.89
10/02/00	8.67	12.11	5.43	10.65	11.45	9.90	15.18	15.53	14.89
10/03/00	8.44	11.79	5.12	10.52	11.30	9.74	15.18	15.53	15.06
10/04/00	8.17	11.48	5.12	10.24	10.99	9.59	15.77	16.33	15.06
10/05/00	8.10	11.33	4.97	10.21	11.14	9.59	16.39	16.96	15.69
10/06/00	8.18	11.33	5.12	10.29	10.99	9.59	16.91	17.44	16.17
10/07/00	8.65	11.79	5.59	10.41	11.14	9.74	17.28	17.77	16.64
10/08/00	8.43	11.79	5.43	10.39	10.99	9.74	17.58	18.09	17.12
10/09/00	7.41	10.09	4.49	9.86	10.53	9.28	16.99	17.61	16.17
10/10/00	4.26	6.37	3.09	7.27	9.59	6.19	16.31	16.80	15.69
10/11/00	3.40	4.34	2.13	5.38	6.19	4.94	15.63	16.01	15.22
10/12/00	3.97	4.97	2.93	5.18	5.57	4.78	15.26	15.53	14.89
10/13/00	4.85	7.61	2.77	5.40	6.19	4.63	15.01	15.38	14.74
10/14/00	5.19	8.23	3.09	5.98	6.97	5.26	14.29	14.74	13.96
10/15/00	5.09	7.92	3.09	6.37	7.28	5.72	13.83	14.11	13.65
10/16/00	5.30	8.38	3.09	6.87	7.90	6.19	13.69	13.96	13.49
10/17/00	5.43	8.54	3.24	7.20	8.05	6.51	13.46	13.80	13.34
10/18/00	5.46	7.92	3.41	7.42	8.21	6.82	13.34	13.65	13.19
10/19/00	5.46	8.38	3.24	7.48	8.05	6.82	13.27	13.65	13.19
10/20/00	5.35	8.08	3.09	7.47	8.05	6.97	13.19	13.49	13.03
10/21/00	4.72	5.90	3.72	7.23	7.90	6.66	13.03	13.34	12.72
10/22/00	4.00	6.84	2.29	5.77	6.66	5.26	12.52	12.88	12.26
10/23/00	3.57	6.37	1.50	5.19	5.72	4.63	12.37	12.72	12.26
10/24/00	3.78	6.53	1.82	5.43	6.04	4.94	12.32	12.57	12.10
10/25/00	3.84	5.74	2.29	5.69	6.04	5.26	12.07	12.26	11.48
10/26/00	3.06	4.03	1.82	5.57	5.88	5.26			
10/27/00	2.43	3.87	1.18						
10/28/00	3.24	4.18	2.13						
10/29/00	1.17	3.41	0.22						
10/30/00	0.68	1.34	0.22						
10/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek Upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00	11.28	14.23	8.51	12.06	15.24	9.32	12.47	14.73	9.63			
05/27/00	12.57	15.81	9.91	13.55	18.11	10.73	13.57	16.16	10.72			
05/28/00	12.32	15.49	9.44	13.31	15.87	10.88	13.59	16.16	10.88			
05/29/00	11.47	14.54	8.82	12.37	14.92	10.11	12.71	15.21	10.10			
05/30/00	10.86	13.47	8.82	11.66	13.82	9.94	12.05	14.11	9.94			
05/31/00	9.81	13.01	6.81	10.50	12.90	7.93	11.18	13.50	8.55			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek Upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00	10.42	13.92	7.43	11.04	13.82	8.39	11.43	13.96	8.55			
06/02/00	10.31	13.77	7.12	10.97	13.52	8.09	11.51	14.11	8.55			
06/03/00	11.23	14.70	8.20	11.91	14.60	9.17	12.17	14.73	9.32			
06/04/00	11.46	14.39	8.97	12.24	14.44	10.11	12.65	14.89	10.41			
06/05/00	11.08	13.77	9.13	11.85	13.82	10.26	12.28	14.27	10.26			
06/06/00	10.64	13.92	7.74	11.30	13.82	8.71	11.63	13.96	9.01			
06/07/00	11.04	14.08	8.51	11.77	14.60	9.63	12.08	14.11	9.78			
06/08/00	8.20	10.37	6.81	8.74	10.73	7.01	9.50	11.64	7.94			
06/09/00	8.15	10.99	5.72	8.68	11.66	5.91	8.58	10.26	6.08			
06/10/00	9.33	12.38	6.34	9.87	13.06	6.85	10.18	12.42	7.78			
06/11/00	9.95	13.47	6.81	10.44	13.98	7.32	10.61	13.04	7.78			
06/12/00	11.27	13.92	8.51	11.89	14.44	9.01	11.75	13.65	9.32			
06/13/00	13.31	17.08	10.22	14.07	17.94	10.88	13.53	16.32	10.57			
06/14/00	13.77	17.56	10.37	14.75	19.57	11.19	14.33	17.27	11.18			
06/15/00	14.78	17.72	11.92	15.89	18.43	13.36	15.44	17.91	12.88			
06/16/00	15.22	18.36	13.01	16.39	19.08	14.44	15.93	18.39	13.81			
06/17/00	14.77	17.72	12.54	15.90	18.43	13.98	15.64	18.07	13.50			
06/18/00	14.02	16.61	12.07	15.14	17.30	13.36	15.10	17.27	13.04			
06/19/00	13.09	16.13	10.22	14.09	16.51	11.66	14.12	16.64	11.49			
06/20/00	13.81	17.08	10.99	14.81	17.46	12.28	14.70	17.27	12.11			
06/21/00	14.01	17.08	10.99	14.92	17.30	12.28	14.82	17.43	11.95			
06/22/00	14.32	17.08	11.76	15.30	17.78	13.06	15.19	17.59	12.88			
06/23/00	13.73	16.44	11.29	14.71	17.30	12.59	14.62	17.43	11.95			
06/24/00	13.40	16.28	10.37	14.31	16.82	11.81	14.28	16.79	11.49			
06/25/00	13.85	16.61	11.76	14.79	17.46	12.74	14.91	17.75	12.42			
06/26/00	13.72	16.61	11.29	14.67	17.14	12.59	14.88	17.43	12.42			
06/27/00	14.12	16.92	11.45	15.11	17.62	12.74	15.10	17.59	12.42			
06/28/00	15.00	17.72	12.69	15.95	18.59	13.82	15.83	18.39	13.34	15.26	17.48	13.69
06/29/00	15.02	17.72	12.69	16.06	18.59	13.98	15.86	18.56	13.34	15.38	17.63	13.84
06/30/00	14.64	16.76	13.01	15.70	18.11	14.13	15.60	18.39	13.50	15.27	17.63	14.00

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek Upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	12.80	15.33	10.84	13.70	16.03	12.12	13.88	16.48	11.49	14.20	16.36	12.61
07/02/00	12.05	15.02	9.44	12.86	15.56	10.57	13.02	16.00	10.10	13.43	15.73	11.68
07/03/00	11.90	14.23	10.22	12.69	15.08	11.34	12.66	15.21	10.57	13.09	15.09	11.83
07/04/00	10.82	13.47	8.20	11.55	13.98	9.32	11.68	14.42	8.86	12.27	14.47	10.60
07/05/00	10.91	13.31	8.82	11.67	14.13	9.79	11.77	14.58	9.01	12.27	14.47	10.60
07/06/00	11.43	14.08	9.13	12.17	14.76	10.11	12.05	14.89	9.32	12.44	14.62	10.76
07/07/00	11.59	14.39	8.97	12.32	14.92	10.11	12.27	15.21	9.63	12.62	14.78	11.06
07/08/00	11.67	14.39	9.28	12.44	15.08	10.26	12.32	15.21	9.47	12.59	14.78	10.91
07/09/00	11.74	14.70	8.82	12.48	15.24	9.94	12.45	15.53	9.32	12.74	15.09	10.91
07/10/00	12.53	15.18	10.22	13.24	15.87	11.04	13.09	16.00	10.26	13.21	15.57	11.37
07/11/00	13.30	15.97	10.84	14.11	16.82	11.81	13.86	16.79	11.03	13.42	15.26	11.99
07/12/00	13.43	16.44	10.99	14.29	17.30	12.12	14.09	17.43	11.18	13.73	16.52	11.99
07/13/00	12.96	15.97	10.22	13.84	16.82	11.34	13.76	16.96	10.41	13.53	15.89	11.68
07/14/00	12.75	15.65	9.91	13.59	16.35	11.04	13.55	16.64	10.10	13.56	16.21	11.52
07/15/00	13.07	15.81	10.53	13.91	16.67	11.66	13.96	17.11	10.88	13.96	16.52	11.99
07/16/00	13.58	15.97	11.92	14.38	17.14	12.90	14.40	17.27	12.26	14.23	16.68	12.77
07/17/00	12.76	15.33	10.22	13.67	16.19	11.34	13.84	16.79	10.88	13.79	16.36	11.99
07/18/00	12.55	15.49	9.75	13.41	16.19	10.88	13.59	16.64	10.26	13.64	16.36	11.68
07/19/00	12.55	15.33	9.75	13.40	16.03	10.88	13.60	16.64	10.26	13.71	16.52	11.52
07/20/00				13.64	16.35	10.88	13.84	16.79	10.57	13.95	16.84	11.83
07/21/00				13.89	17.14	11.04	14.23	17.27	11.03	14.55	17.48	12.30
07/22/00				14.38	17.30	12.12	14.80	17.75	12.11	15.02	17.96	12.92
07/23/00				13.86	16.67	11.19	14.29	17.11	11.03	14.90	17.79	12.30
07/24/00				14.12	16.98	11.97	14.56	17.27	11.80	15.21	18.12	12.92
07/25/00				14.21	16.98	12.12	14.59	17.27	12.11	15.32	18.28	13.08
07/26/00				14.05	16.98	12.12	14.57	17.11	12.11	15.24	18.28	13.08
07/27/00				13.73	16.67	11.66	14.18	16.79	11.64	14.99	18.12	12.61
07/28/00				13.38	16.19	10.88	13.79	16.32	10.88	14.89	17.96	12.14
07/29/00				13.94	16.67	11.50	14.16	16.64	11.64	15.22	18.28	12.61
07/30/00				15.27	17.94	13.06	15.44	17.59	13.34	15.95	18.44	13.69
07/31/00				16.19	18.75	14.13	16.27	18.23	14.27	16.65	19.58	14.31

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek Upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00				17.28	19.73	15.56	17.33	19.20	15.68	17.57	20.38	15.73
08/02/00				17.02	19.24	15.40	17.16	18.39	15.68	17.51	19.90	15.89
08/03/00				16.93	19.40	15.40	17.10	18.88	15.53	17.39	20.06	15.41
08/04/00				16.78	19.24	15.24	17.05	19.04	15.37	17.41	20.38	15.26
08/05/00				16.12	18.75	14.44	16.55	18.56	14.89	16.93	19.74	14.62
08/06/00				15.70	18.27	14.13	16.16	18.07	14.58	16.64	19.41	14.47
08/07/00				15.09	17.46	13.67	15.69	17.75	14.11	16.26	18.44	14.16
08/08/00				14.56	17.30	12.74	15.13	17.11	13.50	15.99	18.76	13.69
08/09/00				13.90	16.67	11.81	14.51	16.79	12.73	15.53	18.44	13.08
08/10/00				13.44	16.19	11.34	14.07	16.64	12.26	15.13	17.96	12.61
08/11/00				12.92	15.56	10.42	13.51	16.16	11.49	14.86	18.28	12.14
08/12/00				12.99	15.87	10.42	13.51	16.00	11.34	14.87	18.12	12.30
08/13/00				13.07	15.87	11.19	13.66	16.16	11.80	14.91	18.12	12.61
08/14/00				12.97	15.56	10.88	13.36	15.84	11.18	14.95	18.12	12.46
08/15/00				13.76	16.51	11.97	14.07	16.48	12.11	15.58	18.60	13.54
08/16/00	12.96	15.24	11.66	14.10	16.82	12.28	14.26	16.64	12.26	15.65	18.60	13.54
08/17/00	12.92	14.92	11.66	14.01	16.51	12.43	14.29	16.79	12.42	15.62	18.44	13.54
08/18/00	11.83	13.98	10.43	13.02	15.72	11.34	13.53	16.16	11.49	14.88	17.48	12.77
08/19/00	10.65	12.91	9.03	11.84	14.44	9.94	12.38	14.89	10.26	13.78	16.21	11.52
08/20/00	10.56	12.91	8.88	11.64	14.13	9.63	12.09	14.58	10.10	13.20	14.94	11.22
08/21/00	10.48	13.06	8.73	11.65	14.13	9.48	11.97	14.42	9.94	13.16	15.89	11.06
08/22/00	10.82	13.37	9.19	11.95	14.60	9.79	12.03	14.42	9.94	13.47	16.36	11.22
08/23/00	11.51	13.52	10.27	12.50	15.24	10.88	12.29	14.73	10.57	13.85	16.52	11.83
08/24/00	11.38	13.98	9.81	12.63	15.24	10.57	12.25	14.58	10.10	13.90	16.21	11.68
08/25/00	13.43	15.24	12.59	14.27	16.67	12.90	13.46	15.53	11.95	14.81	17.16	13.23
08/26/00	14.14	15.56	13.37	14.96	17.14	13.67	14.33	16.64	12.88	15.63	18.28	14.00
08/27/00	13.59	15.39	12.44	14.65	16.98	13.06	14.09	16.32	12.42	15.50	18.12	13.69
08/28/00	13.52	15.24	12.13	14.43	16.19	12.90	14.02	15.84	12.42	15.58	17.96	13.69
08/29/00	13.94	14.29	13.52	14.35	14.76	13.98	13.97	14.58	13.34	14.92	15.73	14.31
08/30/00	13.70	14.44	12.91	14.19	15.24	13.36	14.08	14.89	13.50	14.37	15.26	13.69
08/31/00	12.33	13.21	11.20	13.03	14.13	12.12	13.08	14.11	12.26	13.30	14.31	12.61

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek Upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	11.07	12.13	10.43	11.62	12.43	10.73	11.83	12.88	10.57	12.05	12.77	11.52
09/02/00	10.81	11.66	10.12	11.28	12.12	10.57	11.29	12.42	10.41	11.74	12.30	11.22
09/03/00	10.89	11.97	9.65	11.35	12.28	10.11	11.33	12.11	10.41	11.74	12.30	11.06
09/04/00	9.91	11.20	8.57	10.52	12.12	9.32	10.35	11.49	9.01	11.23	12.30	10.44
09/05/00	9.36	11.20	7.49	9.81	11.81	8.24	9.68	11.34	8.09	10.84	12.61	9.67
09/06/00	9.06	11.35	7.03	9.48	11.81	7.62	9.23	10.72	7.63	10.57	12.30	9.20
09/07/00	9.34	11.51	7.81	10.03	12.43	8.09	9.33	10.88	7.78	11.01	13.08	9.36
09/08/00	10.19	11.97	8.57	10.55	12.59	9.01	9.85	11.49	8.71	11.83	14.31	10.13
09/09/00	10.16	12.13	8.42	10.50	12.59	8.86	9.77	11.34	8.55	11.61	13.69	10.13
09/10/00	10.17	12.13	8.73	10.83	13.06	9.17	10.01	11.49	8.86	11.94	14.00	10.60
09/11/00	10.30	12.28	8.11	10.64	12.90	8.71	9.91	11.34	8.71	12.20	14.78	10.44
09/12/00	10.72	12.91	8.73	10.88	12.59	9.01	9.84	10.88	8.55	12.13	13.84	10.44
09/13/00	12.38	14.13	10.74	12.62	14.60	10.88	11.24	12.42	10.10	13.34	15.41	11.99
09/14/00	13.03	14.60	11.66	13.35	15.24	12.12	12.00	13.19	11.03	14.24	16.68	12.92
09/15/00	12.64	14.44	10.89	13.05	15.08	11.66	11.96	13.04	11.03	14.34	16.84	12.77
09/16/00	11.45	13.67	9.34	11.87	14.13	10.26	11.00	11.95	9.78	13.34	15.73	11.52
09/17/00	12.06	13.98	10.43	12.35	14.44	10.88	11.28	12.57	10.10	13.76	16.36	11.99
09/18/00	12.15	13.98	10.27	12.49	14.44	10.88	11.29	12.57	10.10	13.84	16.36	12.14
09/19/00	12.48	13.98	10.74	12.81	14.60	11.34	11.70	12.88	10.57	14.09	16.36	12.46
09/20/00	12.97	14.92	11.35	13.27	15.24	11.81	11.91	13.04	10.88	14.43	16.52	12.92
09/21/00	12.84	14.29	11.66	13.16	14.76	12.12	12.09	13.04	11.34	14.65	16.68	13.39
09/22/00	10.95	12.28	10.12	11.41	12.43	10.73	11.12	11.80	10.72	12.64	14.16	11.68
09/23/00	9.78	11.35	7.81	10.25	11.34	8.71	9.93	10.72	8.86	11.26	12.30	9.98
09/24/00	10.01	11.66	8.27	10.32	11.97	8.86	9.70	10.41	8.71	11.22	13.23	9.82
09/25/00	9.87	11.51	8.11	10.15	11.81	8.71	9.29	10.10	8.24	11.03	12.61	9.98
09/26/00	9.63	11.20	7.65	9.89	11.50	8.39	9.02	9.78	8.09	10.95	12.46	9.82
09/27/00	10.14	11.82	8.57	10.33	12.12	9.01	9.17	10.10	8.24	11.19	12.77	10.13
09/28/00	10.28	11.82	8.73	10.53	11.97	9.32	9.35	10.26	8.55	11.24	12.46	10.29
09/29/00	10.35	11.97	8.73	10.62	12.12	9.17	9.35	10.10	8.55	11.19	12.46	10.29
09/30/00	10.57	12.28	9.03	10.76	12.43	9.48	9.43	10.26	8.55	11.46	12.92	10.44

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2000

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek Upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	10.37	11.82	8.73	10.57	12.12	9.32	9.37	10.10	8.55	11.50	13.08	10.44
10/02/00	10.36	12.13	8.73	10.62	12.28	9.17	9.28	10.10	8.40	11.50	13.08	10.44
10/03/00	10.32	11.82	8.73	10.56	12.12	9.17	9.37	10.10	8.55	11.57	13.08	10.60
10/04/00	9.76	11.20	8.27	9.97	11.50	8.86	8.98	9.63	8.24	11.29	13.23	10.29
10/05/00	10.07	11.82	8.57	10.17	11.81	8.86	8.87	9.63	8.09	11.36	13.54	10.13
10/06/00	10.27	11.82	8.73	10.36	11.81	9.01	9.03	9.78	8.09	11.50	13.54	10.29
10/07/00	10.57	12.13	9.03	10.67	11.97	9.32	9.29	9.94	8.55	11.49	12.46	10.60
10/08/00	10.56	11.97	9.03	10.64	11.97	9.32	9.36	9.94	8.71	11.32	12.61	10.44
10/09/00	10.03	11.51	8.57	10.17	11.50	9.01	9.09	9.78	8.24	11.07	12.14	10.13
10/10/00	7.44	9.96	6.57	7.73	9.79	6.85	5.90	9.47	4.22	9.03	10.76	8.58
10/11/00	6.29	6.88	5.32	6.30	6.85	5.44	5.37	6.24	4.53	8.05	8.58	7.50
10/12/00	6.79	7.49	6.10	6.68	7.32	5.76	5.75	6.39	4.99	8.09	8.58	7.50
10/13/00	6.80	8.27	5.48	6.72	7.78	5.60	5.44	6.86	4.06	7.88	8.74	7.04
10/14/00	7.33	8.88	5.94	7.25	8.39	6.07	5.76	7.17	4.53	8.13	9.20	7.34
10/15/00	7.47	8.73	6.10	7.45	8.39	6.38	5.76	7.02	4.53	8.24	9.36	7.34
10/16/00	8.12	9.34	6.88	8.17	9.17	7.16	6.32	7.63	5.31	8.67	9.82	7.81
10/17/00	8.09	9.19	6.72	8.23	9.32	7.16	6.52	7.48	5.46	8.86	10.13	7.97
10/18/00	8.45	9.96	6.88	8.59	10.11	7.16	6.94	8.24	5.77	9.26	10.91	8.12
10/19/00	8.21	9.65	6.88	8.36	9.32	7.32	6.84	7.78	5.93	9.15	10.29	8.43
10/20/00	8.30	9.81	6.72	8.44	9.63	7.16	6.76	7.78	5.62	9.11	10.13	8.12
10/21/00	7.87	9.03	6.57	8.03	9.17	6.85	6.92	7.63	6.24	8.95	9.82	7.81
10/22/00	6.11	7.03	5.01	6.23	6.85	5.29	5.27	6.08	4.37	7.50	8.43	6.88
10/23/00	6.12	7.34	5.01	6.13	7.01	5.29	4.80	5.77	3.91	7.38	8.43	6.73
10/24/00	6.60	7.65	5.48	6.58	7.47	5.76	5.00	5.93	4.22	7.62	8.74	6.88
10/25/00	6.90	7.81	5.94	7.01	7.78	6.07	5.38	6.24	4.53	7.90	8.74	7.19
10/26/00	6.41	6.88	5.79	6.69	7.16	6.07	5.51	5.93	4.84	7.67	8.12	7.34
10/27/00												
10/28/00												
10/29/00												
10/30/00												
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01				9.6	12.2	6.8	4.3	5.3	3.7
05/02/01				8.5	10.4	6.8	4.3	5.1	3.9
05/03/01				6.4	8.7	4.0	4.2	5.1	3.9
05/04/01				6.8	9.1	4.5	4.3	5.1	3.7
05/05/01				7.4	10.4	4.6	4.4	5.3	3.9
05/06/01				8.6	11.8	5.4	4.5	5.3	4.0
05/07/01				9.6	13.0	6.5	4.5	5.3	4.0
05/08/01				9.3	12.1	6.3	4.8	5.8	4.4
05/09/01				9.7	12.2	7.1	5.5	6.1	5.0
05/10/01				10.0	12.4	7.4	5.3	6.1	5.0
05/11/01				10.3	12.9	8.1	5.4	6.2	5.0
05/12/01				9.7	10.7	8.5	5.4	6.1	5.1
05/13/01				9.9	12.4	7.7	6.2	7.0	5.8
05/14/01				10.1	12.5	7.6	6.2	6.8	5.8
05/15/01				10.7	12.7	8.7	6.4	7.2	5.9
05/16/01				12.0	14.2	10.1	6.6	7.3	6.2
05/17/01				12.2	14.6	10.1	6.3	7.0	5.8
05/18/01				11.4	13.2	9.3	6.4	7.5	5.8
05/19/01	6.0	9.8	3.2	11.6	14.2	9.3	6.6	7.6	6.2
05/20/01	6.6	10.4	3.6	12.3	14.6	9.9	6.7	7.5	6.2
05/21/01	7.3	11.2	4.2	13.2	15.7	10.8	7.0	7.8	6.5
05/22/01	8.0	11.8	5.0	14.1	16.3	12.1	7.2	8.2	6.7
05/23/01	8.6	12.4	5.4	14.3	16.4	12.2	7.6	8.7	7.0
05/24/01	9.1	12.7	5.9	14.4	16.4	12.4	8.5	9.6	7.5
05/25/01	9.4	13.0	6.4	13.4	15.5	11.3	8.7	9.6	8.2
05/26/01	9.3	12.7	6.2	12.2	14.3	10.1	8.8	9.8	8.4
05/27/01	9.3	12.9	6.2	11.7	13.9	9.6	8.8	9.8	8.4
05/28/01	9.4	12.9	6.5	11.6	13.8	9.8	9.1	9.9	8.5
05/29/01	10.2	14.1	6.8	12.2	14.7	9.9	9.3	10.1	8.9
05/30/01	11.2	14.9	7.8	13.4	16.0	11.2	9.4	10.4	8.9
05/31/01	12.2	16.0	8.8	14.6	17.1	12.4	9.3	10.1	9.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	12.4	15.7	9.3	14.7	16.6	12.7	9.3	9.9	9.0
06/02/01	11.4	14.7	8.7	13.2	14.9	11.5	9.4	9.9	9.0
06/03/01	10.1	13.8	6.8	11.0	13.0	8.8	9.5	10.1	9.2
06/04/01	10.3	14.1	7.0	11.1	13.5	9.1	9.6	10.3	9.3
06/05/01	10.7	14.6	7.5	11.1	13.3	9.1	10.0	10.6	9.6
06/06/01	11.7	16.0	8.1	12.2	14.9	9.9	9.9	10.6	9.6
06/07/01	12.4	16.6	8.7	13.1	15.7	10.9	9.9	10.6	9.6
06/08/01	12.4	16.5	8.8	12.7	15.2	10.4	10.4	11.2	9.6
06/09/01	12.4	16.5	8.8	12.5	14.7	10.4	10.9	11.8	10.1
06/10/01	12.6	16.6	9.3	12.5	14.7	10.4	11.0	11.8	10.6
06/11/01	12.1	15.7	8.7	11.8	13.6	9.9	11.4	12.3	10.7
06/12/01	12.0	15.4	8.8	11.9	14.3	9.9	11.5	12.3	11.0
06/13/01	11.5	15.5	7.8	11.2	13.3	8.8	11.5	12.3	11.0
06/14/01	11.9	16.0	8.1	11.5	13.9	9.3	11.9	12.6	11.2
06/15/01	12.5	16.8	8.5	12.0	14.6	9.8	12.3	13.0	11.8
06/16/01	13.1	17.3	9.2	12.6	15.0	10.2	12.4	13.0	12.0
06/17/01	13.5	17.4	9.8	13.1	15.4	11.0	12.1	12.7	11.8
06/18/01	13.3	17.3	9.3	12.6	14.9	10.2	12.0	12.6	11.6
06/19/01	13.4	17.4	9.5	12.6	14.9	10.2	12.0	12.7	11.5
06/20/01	14.1	18.1	10.4	13.3	15.7	11.2	12.0	12.7	11.6
06/21/01	15.0	18.9	11.2	14.3	16.8	12.1	12.1	12.9	11.6
06/22/01	15.7	19.2	12.1	15.1	17.4	13.2	12.2	12.7	11.8
06/23/01	15.7	19.2	12.3	15.0	17.1	13.2	12.1	12.7	11.8
06/24/01	14.5	17.6	11.5	13.5	15.2	11.9	12.2	13.0	11.8
06/25/01	13.4	17.0	9.9	12.0	14.1	10.1	12.9	13.8	12.0
06/26/01	14.4	17.9	11.5	12.9	15.3	11.1	13.5	14.3	12.9
06/27/01	14.9	18.4	11.8	13.7	15.8	12.1	13.6	14.3	13.2
06/28/01	14.3	19.5	10.7	13.1	15.5	10.8	13.8	14.6	13.2
06/29/01	15.3	19.2	11.2	14.1	16.6	11.9	14.1	14.9	13.5
06/30/01	15.8	19.5	11.6	14.6	16.8	12.2	14.2	14.9	13.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	16.3	19.9	12.4	15.1	17.4	13.0	14.4	15.2	14.0
07/02/01	17.2	20.8	13.3	15.9	18.4	13.9	14.5	15.1	14.1
07/03/01	18.2	21.7	14.7	16.8	18.9	15.0	14.6	15.2	14.1
07/04/01	18.0	19.7	16.5	17.4	18.5	16.4	14.6	15.2	14.3
07/05/01	17.5	20.7	14.4	17.3	19.2	15.8	14.7	15.4	14.3
07/06/01	15.9	17.4	14.9	16.5	17.4	16.1	14.6	14.9	14.4
07/07/01	14.7	15.8	13.6	16.3	17.1	15.7	14.5	14.9	14.3
07/08/01	14.8	16.8	12.7	16.6	18.2	15.2	14.5	15.1	14.3
07/09/01	15.5	19.7	11.6	16.3	18.4	14.4	14.7	15.4	14.3
07/10/01	16.6	20.0	13.3	16.2	18.4	14.4	14.9	15.5	14.3
07/11/01	16.6	20.0	13.3	16.0	17.9	14.4	15.1	15.7	14.6
07/12/01	15.8	19.2	12.1	14.9	16.8	12.9	14.8	15.4	14.6
07/13/01	15.1	17.8	11.8	14.0	15.8	12.1	14.8	15.4	14.6
07/14/01	15.2	18.9	11.5	14.1	16.1	12.4	14.8	15.4	14.6
07/15/01	14.8	18.4	11.0	13.4	15.3	11.3	14.9	15.4	14.6
07/16/01	14.7	18.1	11.0	13.2	15.2	11.3	14.9	15.5	14.6
07/17/01	14.9	18.4	11.2	13.4	15.5	11.5	15.1	15.7	14.6
07/18/01	15.0	18.7	11.3	13.8	15.8	12.1	15.4	16.0	14.9
07/19/01	14.9	18.6	11.0	13.6	15.5	11.6	15.4	16.0	15.1
07/20/01	15.0	18.7	11.2	13.7	15.8	11.8	15.4	16.0	15.1
07/21/01	15.0	18.9	11.3	13.8	15.8	12.1	15.3	15.9	15.1
07/22/01	14.8	18.9	10.9	13.5	15.5	11.5	15.3	15.9	15.1
07/23/01	15.0	18.9	11.2	13.7	15.7	11.8	15.3	15.9	14.9
07/24/01	15.7	19.7	11.6	14.3	16.3	12.4	15.3	15.9	15.1
07/25/01	16.4	20.3	12.4	15.1	16.9	13.3	15.3	15.9	15.1
07/26/01	17.4	21.7	13.6	16.3	18.2	14.7	15.3	15.9	15.1
07/27/01	16.9	21.2	12.9	16.0	17.4	14.4	15.3	15.9	14.9
07/28/01	16.2	20.7	12.4	15.4	16.8	13.8	15.4	15.9	15.1
07/29/01	15.8	20.5	11.8	14.9	16.3	13.3	15.4	16.0	15.1
07/30/01	15.4	19.9	11.8	14.8	15.8	13.3	15.5	16.0	15.2
07/31/01	15.8	20.5	11.9	15.2	16.6	13.6	15.6	16.2	15.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	16.1	20.8	12.3	15.6	16.9	14.1	15.9	16.5	15.4
08/02/01	16.6	21.2	12.9	16.1	17.4	14.7	16.0	16.5	15.7
08/03/01	16.8	21.3	13.3	16.5	17.6	15.3	16.0	16.5	15.7
08/04/01	15.6	20.3	11.6	15.8	16.9	14.6	16.0	16.5	15.7
08/05/01	15.0	20.2	10.7	15.2	16.3	13.9	16.0	16.5	15.7
08/06/01	15.6	20.7	11.2	15.4	16.6	14.1	16.0	16.6	15.7
08/07/01	17.3	22.0	13.3	16.7	17.9	15.5	16.4	17.0	15.9
08/08/01	17.8	22.3	14.1	17.6	18.5	16.4	16.5	17.0	16.2
08/09/01	17.4	22.0	13.6	17.6	18.4	16.6	16.4	16.8	16.2
08/10/01	17.1	21.8	13.3	17.5	18.4	16.6	16.4	16.8	16.2
08/11/01	16.5	21.3	12.3	17.2	18.0	16.1	16.4	16.8	16.0
08/12/01	16.3	20.8	12.3	16.9	17.7	16.0	16.3	17.0	16.0
08/13/01	16.0	21.0	11.8	16.7	17.6	15.8	16.0	16.5	15.9
08/14/01	15.6	20.2	11.3	16.6	17.4	15.7	16.0	16.5	15.7
08/15/01	15.2	19.4	11.3	16.5	17.2	15.7	16.0	16.5	15.7
08/16/01	15.3	19.9	10.9	16.3	17.1	15.3	16.0	16.5	15.7
08/17/01	15.4	19.7	10.9	16.2	16.8	15.3	16.1	16.6	15.9
08/18/01	15.6	19.7	11.5	16.5	17.9	15.5	16.2	16.6	15.9
08/19/01	15.4	19.7	11.3	16.5	17.3	15.7	16.1	16.5	15.9
08/20/01	14.9	18.7	11.0	16.1	16.8	15.4	16.0	16.5	15.7
08/21/01	14.1	17.6	10.6	15.5	16.0	14.9	16.1	16.6	15.7
08/22/01	13.2	16.8	9.5	14.8	15.4	14.3	16.2	16.8	15.9
08/23/01	12.7	16.8	8.4	14.3	15.0	13.6	16.5	17.0	16.0
08/24/01	12.8	17.0	8.4	14.1	14.9	13.3	16.7	17.3	16.3
08/25/01	13.6	17.9	9.2	14.6	15.5	13.8	16.8	17.3	16.5
08/26/01	14.3	18.2	9.9	15.3	16.3	14.4	17.0	17.4	16.6
08/27/01	14.7	18.7	10.6	15.8	16.6	15.0	17.2	17.8	16.8
08/28/01	14.9	18.7	10.7	16.0	16.8	15.2	17.4	17.9	17.1
08/29/01	14.9	18.4	10.9	16.2	17.0	15.4	17.3	17.8	17.1
08/30/01	14.3	17.6	10.7	16.0	16.6	15.4	17.3	17.8	17.1
08/31/01	13.7	17.3	9.8	15.5	16.2	14.7	17.3	17.8	17.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek downstream of Balsam Meadow Forebay		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	13.3	17.0	9.3	15.2	15.8	14.4	17.2	17.6	17.0
09/02/01	13.5	17.1	9.5	15.1	16.0	14.4	17.2	17.6	16.8
09/03/01	13.9	16.0	11.0	15.4	15.7	14.9	17.3	17.9	17.0
09/04/01	13.9	17.3	10.1	15.3	16.2	14.6	17.7	18.2	17.1
09/05/01	13.9	17.0	10.4	15.6	16.3	14.9	17.8	18.2	17.6
09/06/01	12.3	15.5	8.4	14.8	15.5	14.3	17.9	18.4	17.6
09/07/01	12.2	15.5	8.4	14.3	14.9	13.6	18.1	18.6	17.6
09/08/01	12.0	15.5	8.1	14.0	14.6	13.3	18.1	18.7	17.6
09/09/01	11.7	15.1	7.8	13.8	14.4	13.2	18.3	18.9	17.8
09/10/01	12.0	15.5	8.1	13.7	14.4	13.0	18.4	19.1	17.9
09/11/01	12.1	13.6	10.6	13.9	14.4	13.6	17.7	18.2	17.4
09/12/01	11.4	14.3	7.9	13.6	14.1	13.0	17.1	17.4	16.8
09/13/01	10.5	13.8	6.7	13.0	13.6	12.4	16.8	17.3	16.6
09/14/01	10.1	13.5	6.2	12.7	13.3	12.1	16.7	17.1	16.5
09/15/01	10.0	13.0	6.2	12.5	13.0	11.9	16.7	17.1	16.5
09/16/01	10.0	13.0	6.4	12.3	13.0	11.8	16.7	17.1	16.5
09/17/01	10.3	13.3	6.5	12.4	13.0	11.8	16.6	17.1	16.5
09/18/01	10.6	13.8	6.8	12.7	13.3	12.1	16.6	17.0	16.3
09/19/01	10.7	13.8	7.1	12.8	13.5	12.2	16.6	17.1	16.5
09/20/01	11.0	14.1	7.6	13.1	13.8	12.6	16.6	17.0	16.5
09/21/01	10.9	13.8	7.5	13.0	13.6	12.4	16.6	17.0	16.5
09/22/01	10.8	14.0	7.3	12.9	13.3	12.4	16.5	17.0	16.3
09/23/01	10.0	12.4	7.1	12.7	13.0	12.2	16.4	16.6	16.2
09/24/01	9.6	13.0	5.9	12.3	12.9	11.8	16.3	16.6	16.2
09/25/01	11.9	14.7	9.6	12.7	13.5	12.2	16.4	17.0	16.2
09/26/01	10.0	12.7	6.5	12.4	13.0	11.9	16.3	16.6	16.2
09/27/01	9.5	12.6	6.2	12.0	12.6	11.5	16.3	16.6	16.2
09/28/01	8.8	11.2	5.6	11.6	12.1	11.2	16.2	16.5	16.0
09/29/01	8.8	11.8	5.3	11.2	11.8	10.7	16.1	16.5	15.9
09/30/01	8.9	11.6	5.4	11.4	12.1	10.9	16.4	17.0	15.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Pitman Conduit Diversion			Pitman Creek upstream of Big Creek			Balsam Creek downstream of Balsam Meadow Forebay		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/01	9.5	12.3	6.5	11.7	12.2	11.3	16.5	17.1	16.2
10/02/01	9.6	12.3	6.4	12.0	12.7	11.5	16.2	16.8	16.0
10/03/01	9.9	12.3	6.7	12.2	12.7	11.8	16.3	17.0	16.0
10/04/01	9.8	11.9	6.8	12.3	12.7	11.8	16.2	16.8	16.0
10/05/01	9.5	11.6	7.1	12.0	12.4	11.8	16.1	16.6	15.7
10/06/01	8.3	10.2	5.6	11.2	11.9	10.9	15.8	16.3	15.5
10/07/01	7.4	9.6	4.5	10.4	11.9	9.3	15.6	16.2	15.4
10/08/01	7.8	9.8	5.0	10.3	11.6	9.4	15.4	16.0	15.2
10/09/01	7.3	9.3	4.5	9.7	11.1	8.7	15.2	15.9	14.9
10/10/01	6.5	8.7	3.7	9.3	10.8	8.4	15.1	15.5	14.9
10/11/01	6.2	8.1	3.9	9.3	10.5	8.2	14.9	15.4	14.6
10/12/01	6.2	8.7	3.4	9.0	10.4	8.2	14.7	15.2	14.6
10/13/01	6.0	8.7	2.8	8.8	11.3	7.7	14.7	15.2	14.4
10/14/01	5.2	7.8	2.3	9.4	14.4	8.1			
10/15/01	5.8	8.5	2.8	9.4	12.1	8.5			
10/16/01	5.9	8.4	3.1	9.4	11.8	8.7			
10/17/01	6.0	7.6	3.7	8.9	9.7	8.2			
10/18/01	5.6	7.9	2.9	8.6	9.9	7.9			
10/19/01	5.1	6.8	2.8	8.7	9.4	8.2			
10/20/01	5.5	7.6	2.9	8.5	9.7	8.1			
10/21/01	5.4	7.1	3.1	8.3	8.8	7.9			
10/22/01	4.8	6.5	2.5	7.9	8.2	7.6			
10/23/01	4.8	6.8	2.6	7.8	8.1	7.4			
10/24/01	4.1	6.5	1.7	7.4	7.7	7.1			
10/25/01	3.9	6.2	1.5	7.2	7.4	6.8			
10/26/01	3.7	5.6	1.5	7.2	7.6	6.8			
10/27/01				7.1	7.4	6.8			
10/28/01				7.0	7.3	6.7			
10/29/01				7.0	7.3	6.7			
10/30/01				7.6	8.1	7.3			
10/31/01				6.4	7.1	5.7			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	6.4	8.1	5.1	7.5	10.9	5.5	9.4	14.1	5.2	9.0	11.1	7.4
05/02/01	6.2	7.0	5.4	7.0	8.7	5.3	8.6	11.8	5.9	8.6	10.2	7.1
05/03/01	5.0	5.9	4.0	5.2	7.6	2.8	6.9	10.4	3.4	7.0	8.9	5.5
05/04/01	5.2	6.3	4.2	6.2	8.9	3.6	7.3	11.0	3.7	7.2	9.4	5.4
05/05/01	5.9	7.3	4.9	7.7	10.6	5.0	8.6	12.2	4.9	8.1	10.3	6.5
05/06/01	6.7	8.1	5.7	8.9	11.8	6.1	9.7	13.5	6.0	9.0	11.3	7.4
05/07/01	7.5	8.8	6.5	9.9	13.2	7.0	10.6	14.5	6.8	9.8	12.0	8.0
05/08/01	7.7	9.0	6.7	9.7	12.7	6.9	10.8	14.2	7.3	10.1	12.2	8.5
05/09/01	8.0	9.1	7.0	9.8	12.7	7.0	10.9	13.9	7.4	10.2	12.2	8.6
05/10/01	8.2	9.3	7.3	9.9	13.1	7.0	11.0	13.9	7.6	10.3	12.2	8.8
05/11/01	8.6	9.4	7.7	10.2	14.1	7.8	11.4	14.2	8.5	10.6	12.7	9.3
05/12/01	8.8	9.3	8.2	10.3	12.0	8.7	10.8	12.1	9.6	10.3	11.1	9.7
05/13/01	8.6	9.6	7.7	10.1	13.4	7.6	10.8	13.5	7.9	10.5	12.2	9.3
05/14/01	8.7	9.7	7.7	10.2	13.5	7.0	11.0	13.6	7.7	10.4	12.2	8.9
05/15/01	10.0	12.1	8.4	10.8	13.2	8.1	11.4	13.5	8.8	10.6	11.9	9.4
05/16/01	10.4	12.5	8.7	11.9	14.9	9.2	12.4	14.9	9.7	11.1	13.0	10.0
05/17/01	10.2	11.8	8.8	11.8	15.4	9.3	12.5	14.9	9.9	11.4	13.1	10.2
05/18/01	9.5	11.1	8.4	11.2	14.4	8.6	12.1	14.4	9.4	11.2	13.0	9.9
05/19/01	9.4	10.8	8.5	11.5	14.8	8.7	12.0	14.5	9.0	11.3	13.0	9.9
05/20/01	9.5	10.8	8.7	11.8	15.1	8.4	12.4	15.0	9.1	11.5	13.3	9.9
05/21/01	10.2	11.8	9.4	12.7	16.0	9.6	13.2	15.6	10.0	12.0	13.7	10.5
05/22/01	11.4	12.8	10.4	13.4	16.7	10.9	13.8	16.3	11.1	12.5	14.2	11.1
05/23/01	11.5	12.8	10.7	13.5	16.7	10.6	14.0	16.6	11.3	12.7	14.4	11.3
05/24/01	11.5	12.5	10.7	13.6	16.7	10.9	13.8	16.3	11.4	12.7	14.4	11.4
05/25/01	11.3	12.4	10.5	13.2	15.7	11.3	13.3	15.8	11.1	12.4	14.2	11.3
05/26/01	10.4	11.9	9.4	11.8	14.1	9.6	12.2	14.5	9.7	11.8	13.6	10.3
05/27/01	10.0	11.1	9.3	11.6	14.1	9.5	12.0	14.5	9.4	11.6	13.3	10.2
05/28/01	9.9	10.8	9.1	11.3	13.5	9.5	11.6	13.8	9.4	11.3	12.8	10.0
05/29/01	9.7	10.7	9.3	11.9	14.4	9.6	11.9	14.4	9.4	11.4	13.0	10.0
05/30/01	10.2	11.1	9.7	13.1	16.0	10.4	12.9	15.8	9.9	12.1	14.1	10.5
05/31/01	11.0	11.6	10.7	14.1	16.8	11.5	13.9	16.6	11.0	12.9	14.8	11.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	11.4	12.1	11.0	14.0	16.7	11.7	13.9	16.6	11.3	13.1	15.0	11.6
06/02/01	10.9	12.1	10.2	12.1	14.3	10.4	12.4	15.0	10.4	12.2	14.1	10.8
06/03/01	9.1	10.8	8.4	10.2	12.6	7.9	10.6	13.1	8.0	10.9	12.7	9.4
06/04/01	9.0	10.1	8.4	10.6	12.9	8.6	10.8	13.3	8.3	10.9	12.8	9.4
06/05/01	9.2	10.1	8.7	10.9	13.2	8.9	10.9	13.5	8.3	11.1	13.0	9.6
06/06/01	9.6	10.8	9.1	12.1	14.8	9.6	11.9	14.9	9.1	11.7	13.7	10.0
06/07/01	10.2	11.0	9.6	12.8	15.7	10.1	12.7	15.8	9.7	12.4	14.5	10.7
06/08/01	10.2	11.1	9.6	12.5	15.4	10.1	12.7	15.6	9.6	12.5	14.7	10.7
06/09/01	10.2	11.0	9.7	12.3	14.8	10.1	12.3	15.3	9.4	12.3	14.5	10.7
06/10/01	10.4	11.1	9.9	12.2	14.8	10.4	12.1	15.2	9.4	12.2	14.4	10.7
06/11/01	10.0	11.1	9.4	11.8	14.1	9.6	11.8	14.5	8.8	11.9	13.9	10.3
06/12/01	10.3	11.1	9.7	12.1	14.8	10.1	12.1	14.7	9.6	12.0	13.9	10.7
06/13/01	9.2	11.0	8.4	10.9	13.4	8.6	11.0	14.1	8.0	11.4	13.6	9.7
06/14/01	9.4	10.4	9.0	11.6	14.3	9.3	11.6	14.7	8.7	11.7	14.1	9.9
06/15/01	9.7	10.5	9.3	12.2	14.9	9.6	12.1	15.3	8.8	12.2	14.5	10.2
06/16/01	10.2	10.8	9.7	12.8	15.6	10.3	12.6	15.8	9.3	12.6	15.0	10.7
06/17/01	10.7	11.3	10.4	13.2	15.9	10.9	13.0	16.3	10.0	13.0	15.5	11.1
06/18/01	10.3	11.5	9.7	12.6	15.4	10.1	12.7	16.1	9.3	12.9	15.5	10.8
06/19/01	10.0	10.8	9.6	12.6	15.4	10.0	12.6	16.0	9.0	12.9	15.6	10.7
06/20/01	10.5	10.8	10.2	13.5	16.3	10.9	13.5	16.8	10.2	13.5	16.3	11.4
06/21/01	11.2	11.6	10.8	14.3	17.5	11.7	14.3	17.6	10.8	14.1	16.9	11.9
06/22/01	12.0	12.4	11.3	15.0	17.6	12.7	15.0	18.0	12.1	14.6	17.4	12.5
06/23/01	12.4	12.8	12.1	14.7	17.6	12.9	14.8	18.0	12.1	14.8	17.7	12.7
06/24/01	11.8	12.8	11.5	13.2	15.2	12.0	13.5	16.3	11.0	13.7	16.1	12.0
06/25/01	10.6	11.9	9.7	12.0	14.4	10.0	12.3	15.3	9.3	12.7	15.3	10.7
06/26/01	11.2	13.0	10.5	13.1	15.7	11.2	13.3	16.1	10.8	13.2	15.5	11.6
06/27/01	11.8	13.3	11.1	13.5	16.0	12.1	13.8	16.8	11.8	13.3	15.6	11.9
06/28/01	10.7	12.7	9.9	13.3	16.0	10.9	13.4	16.4	10.4	13.2	15.9	11.1
06/29/01	11.3	12.7	10.7	14.1	17.1	11.7	14.1	17.4	11.0	13.8	16.6	11.6
06/30/01	11.5	13.3	10.8	14.5	17.5	11.8	14.7	17.7	11.6	14.3	16.9	12.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	12.2	13.2	11.8	15.0	17.9	12.7	15.2	18.4	12.4	14.8	17.5	12.5
07/02/01	12.7	13.9	12.4	15.8	18.9	13.4	15.9	19.0	12.8	15.5	18.5	13.0
07/03/01	13.9	14.5	12.5	16.9	19.7	14.6	17.1	19.8	14.5	16.6	19.5	13.9
07/04/01	15.4	16.4	13.8	17.5	19.1	16.3	17.4	18.7	16.3	16.3	18.3	15.2
07/05/01	14.8	16.0	14.4	17.3	20.0	15.6	17.4	20.0	15.2	16.4	18.3	14.5
07/06/01	15.5	16.0	15.3	16.6	17.1	16.2	16.4	17.6	15.5	15.1	17.1	14.7
07/07/01	15.4	16.1	14.9	16.5	17.5	15.9	15.7	16.4	15.0	14.6	15.3	14.1
07/08/01	14.6	15.8	14.1	16.7	18.7	15.2	16.2	18.2	14.1	15.2	16.7	13.9
07/09/01	13.9	15.3	13.3	16.6	19.1	14.6	16.6	19.3	13.8	16.1	18.5	14.1
07/10/01	14.2	15.3	13.8	16.4	18.9	14.8	16.5	19.0	14.2	16.1	18.5	14.2
07/11/01	13.9	14.9	13.5	15.8	18.4	14.4	16.1	18.5	14.2	15.8	18.3	14.1
07/12/01	12.1	13.8	11.5	14.7	17.3	12.6	14.9	17.7	12.4	15.0	17.7	12.7
07/13/01	11.6	13.5	11.0	14.2	16.7	12.0	14.6	17.1	12.1	14.4	16.7	12.4
07/14/01	11.9	13.0	11.5	14.1	16.8	12.3	14.7	17.4	12.5	14.1	16.1	12.5
07/15/01	11.8	13.6	10.7	13.5	16.2	11.5	14.0	16.4	11.8	13.5	15.6	11.7
07/16/01	12.3	14.1	10.7	13.3	16.0	11.5	14.0	16.3	11.9	13.6	15.8	11.7
07/17/01	12.4	14.4	10.7	13.5	16.2	11.5	14.0	16.4	11.9	13.6	15.9	11.7
07/18/01	12.6	14.5	11.0	13.6	16.3	11.7	14.1	16.4	11.9	13.6	15.8	11.7
07/19/01	12.5	14.4	10.8	13.5	16.3	11.5	14.0	16.4	11.9	13.7	15.9	11.7
07/20/01	12.6	14.5	11.0	13.6	16.3	11.5	13.9	16.1	11.9	13.5	15.3	11.7
07/21/01	12.6	14.4	11.1	13.6	16.3	11.8	13.9	16.1	12.1	13.5	15.2	11.9
07/22/01	12.4	14.4	10.8	13.4	16.2	11.5	13.7	16.0	11.9	13.2	14.8	11.6
07/23/01	12.5	14.4	10.8	13.5	16.2	11.5	13.7	16.1	11.8	13.9	16.7	11.6
07/24/01	13.0	15.0	11.3	14.2	17.0	12.0	14.2	17.1	12.4	14.7	17.9	12.2
07/25/01	13.9	16.0	12.2	15.1	17.8	12.7	15.1	17.7	13.0	15.6	19.1	13.0
07/26/01	14.9	16.8	13.3	16.0	19.1	14.0	16.0	18.8	13.9	16.4	19.8	13.9
07/27/01	13.8	15.8	12.1	14.9	17.9	12.7	15.5	18.4	12.8	16.2	21.1	13.1
07/28/01	13.4	15.2	11.8	14.5	17.3	12.4	15.3	18.4	12.5	15.0	16.9	13.1
07/29/01	13.1	15.0	11.5	14.0	17.1	12.1	15.1	18.7	12.1	14.5	16.3	13.0
07/30/01	12.8	14.4	11.5	13.9	16.3	12.1	14.4	17.6	11.9	14.8	18.8	12.7
07/31/01	13.3	15.2	11.8	14.4	17.3	12.4	14.6	17.6	12.4	15.1	19.5	12.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	13.5	15.5	11.9	14.7	17.8	12.6	15.0	18.0	12.4			
08/02/01	14.0	15.8	12.5	15.2	18.1	13.2	15.5	19.2	12.7			
08/03/01	14.2	15.8	13.0	15.3	18.1	13.8	15.4	20.0	12.8			
08/04/01	13.3	14.9	11.9	14.5	17.3	12.4	14.4	19.3	11.3	15.1	18.3	13.3
08/05/01	12.7	14.7	11.0	13.9	16.8	11.5	13.9	19.5	10.0	15.0	19.8	12.5
08/06/01	13.3	15.5	11.6	14.5	17.5	12.0						
08/07/01	14.9	16.6	13.6	16.1	19.1	14.0						
08/08/01	15.4	17.2	13.9	16.5	19.4	14.6						
08/09/01	14.9	16.8	13.5	16.1	18.7	14.3						
08/10/01	14.7	16.6	13.3	15.9	18.6	14.3				17.0	20.0	15.0
08/11/01	14.1	16.3	12.4	15.4	18.3	13.2				16.5	20.8	14.1
08/12/01	14.1	16.0	12.5	15.2	18.1	13.2				16.8	22.3	14.2
08/13/01	13.9	16.0	12.4	15.0	18.1	13.2				17.2	24.1	13.9
08/14/01	13.5	15.7	11.9	14.7	17.8	12.7						
08/15/01	13.4	15.5	11.8	14.6	17.3	12.6						
08/16/01	13.4	15.3	11.9	14.6	17.5	12.4				17.5	25.2	13.9
08/17/01	13.7	16.0	12.1	14.9	17.6	12.7						
08/18/01	14.3	16.4	12.8	15.3	17.8	13.5				16.0	17.7	14.4
08/19/01	14.1	15.8	12.7	15.0	17.6	13.4				15.4	16.9	14.2
08/20/01	13.4	15.0	12.1	14.4	16.8	13.1				14.8	16.6	13.4
08/21/01	12.5	13.8	11.5	13.4	15.7	12.1						
08/22/01	11.8	13.5	10.5	12.9	14.9	11.3						
08/23/01	11.6	13.6	10.1	12.7	15.1	10.9						
08/24/01	11.9	14.1	10.2	13.0	15.4	10.9						
08/25/01	12.6	15.0	10.8	13.6	16.2	11.3				14.7	18.5	12.0
08/26/01	13.4	15.5	11.9	14.3	17.0	12.4				16.6	23.4	13.3
08/27/01	13.7	15.5	12.2	14.6	17.1	12.7				16.4	21.4	13.7
08/28/01	13.8	15.8	12.4	14.8	17.3	12.9				17.9	25.7	13.9
08/29/01	14.0	15.7	12.8	14.9	17.5	13.4				17.6	22.6	14.2
08/30/01	13.5	14.7	12.4	14.3	16.5	13.1				16.7	22.8	14.1
08/31/01	12.6	14.4	11.1	13.6	16.0	11.8				15.9	22.9	12.7

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	12.4	14.2	10.8	13.3	15.9	11.3				14.1	15.8	12.8
09/02/01	12.8	14.7	11.5	13.7	16.2	12.0				14.6	17.9	12.8
09/03/01	13.8	15.5	12.7	14.6	16.7	13.1				15.1	17.4	13.7
09/04/01	13.6	15.2	12.4	14.5	16.8	13.1				16.3	22.6	13.6
09/05/01	13.5	14.9	12.5	14.2	16.5	12.7				16.2	22.4	13.4
09/06/01	11.9	13.3	10.8	12.8	14.9	11.5				14.7	20.4	11.6
09/07/01	11.8	13.5	10.7	12.6	14.9	11.2				15.2	23.1	11.4
09/08/01	11.7	13.5	10.4	12.5	14.8	10.9				15.0	21.8	11.3
09/09/01	11.7	13.3	10.4	12.3	14.8	10.7				16.1	25.2	11.3
09/10/01	11.9	13.8	10.7	12.7	14.9	11.0				15.9	22.6	12.4
09/11/01	12.8	13.9	12.1	13.3	14.6	12.3				14.7	17.5	13.0
09/12/01	11.6	13.0	10.4	12.5	14.6	10.9				14.1	18.0	12.2
09/13/01	10.6	12.4	9.1	11.5	13.7	9.8				13.2	15.9	11.4
09/14/01	10.3	12.2	8.8	11.2	13.5	9.3				12.8	15.5	11.0
09/15/01	10.5	12.1	9.3	11.2	13.2	9.5				12.8	15.9	11.4
09/16/01	10.6	12.2	9.4	11.3	13.4	9.8				12.4	14.1	11.3
09/17/01	10.7	12.4	9.6	11.5	13.5	10.0				12.4	13.9	11.3
09/18/01	11.0	12.7	9.7	11.8	13.8	10.0				13.0	15.0	11.6
09/19/01	11.2	12.8	10.1	11.9	13.8	10.3				13.3	15.5	11.7
09/20/01	11.5	13.0	10.5	12.2	14.1	10.7				13.4	15.6	12.0
09/21/01	11.2	12.7	10.1	11.9	13.7	10.4				13.2	15.3	11.9
09/22/01	11.4	13.0	10.4	12.1	13.8	10.6				13.3	16.6	11.6
09/23/01	11.2	12.8	10.2	11.9	13.5	10.4				13.1	16.3	11.6
09/24/01	10.7	12.4	9.4	11.4	13.4	9.8				12.9	15.5	11.3
09/25/01	12.1	13.3	11.5	12.6	14.4	11.5				13.9	16.9	12.5
09/26/01	10.3	11.8	9.1	11.1	12.7	9.5				12.4	14.4	11.1
09/27/01	10.5	12.2	9.4	11.1	13.1	9.6				12.4	15.6	10.8
09/28/01	10.2	11.5	9.3	10.7	12.4	9.5				12.0	13.7	11.0
09/29/01	9.8	11.5	8.8	10.4	12.1	9.2				11.6	13.3	10.3
09/30/01	10.4	12.2	9.3	11.1	13.1	9.5				12.3	14.4	11.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Diverted Tributaries, 2001

	Balsam Creek Diversion			Balsam Creek upstream of Big Creek			Ely Creek Diversion			Ely Creek upstream of Big Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	11.2	12.7	10.2	11.8	13.5	10.4				13.2	15.3	11.9
10/02/01	11.4	12.7	10.7	12.1	14.0	10.7				13.3	15.5	12.2
10/03/01	11.4	12.5	10.7	12.1	13.8	10.9				13.5	16.4	12.4
10/04/01	11.3	12.4	10.7	12.1	13.7	10.9				13.2	14.4	12.4
10/05/01	11.0	11.8	10.7	11.6	13.1	10.6				12.7	14.1	11.6
10/06/01	9.7	10.5	9.0	10.4	11.8	9.3				11.5	12.8	10.8
10/07/01	9.0	10.2	8.2	9.8	11.3	8.4				11.0	12.4	10.0
10/08/01	9.2	10.4	8.4	10.0	11.5	8.6				11.2	12.0	10.3
10/09/01	8.9	10.1	8.1	9.6	11.0	8.1				10.9	11.7	10.0
10/10/01	8.4	9.6	7.6	9.1	10.6	7.6				10.6	11.6	9.7
10/11/01	8.7	9.9	7.9	9.3	10.9	8.1				10.8	11.7	9.9
10/12/01	8.5	9.6	7.7	9.1	10.7	7.9				10.6	11.6	9.7
10/13/01	8.3	9.3	7.4	9.0	10.6	7.6				10.6	11.6	9.7
10/14/01	8.3	9.6	7.6	8.9	10.9	7.6				10.7	11.9	9.9
10/15/01	8.6	9.9	7.9	9.2	10.9	7.8				10.9	11.9	10.0
10/16/01	8.8	10.1	8.1	9.4	10.9	8.1				11.0	12.0	10.2
10/17/01	8.8	9.6	8.1	9.3	10.6	8.1				11.0	11.9	10.2
10/18/01	8.3	9.1	7.6	8.9	10.3	7.6				10.6	11.4	9.9
10/19/01	8.4	9.6	7.7	9.1	10.6	7.8				10.7	11.6	9.9
10/20/01	8.4	9.3	7.7	8.9	10.1	7.6				10.7	11.4	9.9
10/21/01	8.3	9.0	7.7	8.7	10.1	7.6				10.5	11.3	9.7
10/22/01	7.7	8.4	7.1	8.2	9.3	7.3				10.0	10.8	9.4
10/23/01	7.8	8.7	7.4	8.3	9.5	7.6				10.0	10.8	9.4
10/24/01	7.4	8.4	6.7	7.9	9.3	6.7				9.7	10.5	8.9
10/25/01	7.3	8.2	6.7	7.7	9.2	6.7				9.6	10.5	8.9
10/26/01	7.5	8.4	7.0	7.9	9.3	6.9				9.8	10.7	9.1
10/27/01	7.6	8.5	7.0	8.0	9.3	7.0				9.8	10.7	9.1
10/28/01	7.5	8.2	7.0	8.0	9.2	7.2				9.7	10.5	9.1
10/29/01	7.6	8.7	7.0	8.2	9.3	7.0				9.9	10.5	9.1
10/30/01	8.8	9.3	8.1	9.3	9.8	8.4				10.3	10.7	9.6
10/31/01										9.4	9.9	8.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2000

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00						
05/02/00						
05/03/00						
05/04/00						
05/05/00						
05/06/00						
05/07/00						
05/08/00						
05/09/00						
05/10/00						
05/11/00						
05/12/00						
05/13/00						
05/14/00						
05/15/00						
05/16/00						
05/17/00						
05/18/00						
05/19/00						
05/20/00						
05/21/00						
05/22/00						
05/23/00						
05/24/00						
05/25/00						
05/26/00				14.14	17.32	11.37
05/27/00				15.60	19.09	12.92
05/28/00				15.23	18.77	12.30
05/29/00				14.08	17.48	11.37
05/30/00				13.03	15.89	10.91
05/31/00				11.96	15.26	8.88

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2000

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00				12.72	16.36	9.82
06/02/00				12.96	16.52	9.66
06/03/00				13.93	17.48	10.75
06/04/00				14.38	17.48	11.83
06/05/00				13.54	15.89	11.68
06/06/00				12.94	16.36	9.82
06/07/00				13.59	16.52	11.22
06/08/00				10.31	12.77	8.42
06/09/00				10.06	13.54	7.03
06/10/00				11.82	14.94	9.04
06/11/00				12.31	15.73	9.35
06/12/00				13.83	16.52	11.06
06/13/00				16.27	20.07	13.08
06/14/00	11.57	15.01	9.28	17.22	21.04	13.54
06/15/00	12.10	15.17	9.89	18.33	21.37	15.41
06/16/00	12.35	15.49	10.68	18.72	21.54	16.68
06/17/00	12.05	14.86	10.37	18.08	21.04	15.73
06/18/00	11.69	14.86	10.06	17.27	20.07	14.94
06/19/00	11.11	14.23	8.97	16.33	19.26	13.54
06/20/00	11.60	14.86	9.58	17.16	20.39	14.31
06/21/00	11.71	14.86	9.58	17.30	20.39	14.31
06/22/00	11.66	14.86	9.74	17.57	20.39	15.09
06/23/00	11.37	14.38	9.58	16.69	19.58	14.16
06/24/00	11.17	14.23	8.97	16.44	19.26	13.54
06/25/00	11.35	14.38	9.43	17.02	20.07	14.31
06/26/00	11.27	14.23	9.58	16.76	19.91	14.16
06/27/00	11.49	14.54	9.58	17.00	20.07	14.00
06/28/00	11.97	15.01	10.21	18.08	21.04	15.57
06/29/00	11.93	15.01	10.06	17.91	20.72	15.26
06/30/00	11.72	14.69	10.21	17.62	20.23	15.73

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2000

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	10.57	13.61	8.81	15.35	17.80	13.08
07/02/00	10.21	13.46	8.20	14.56	17.48	11.68
07/03/00	10.11	12.99	8.81	14.35	16.68	12.46
07/04/00	9.38	12.53	7.28	13.17	15.89	10.44
07/05/00	9.55	12.37	7.89	13.43	16.21	10.91
07/06/00	9.90	12.84	8.20	13.91	16.84	11.37
07/07/00	9.82	12.99	7.74	14.15	17.00	11.37
07/08/00	9.94	12.99	8.04	14.13	17.16	11.22
07/09/00	10.12	13.30	8.04	14.54	17.48	11.52
07/10/00	10.57	13.46	8.81	15.22	17.96	12.61
07/11/00	10.99	13.92	8.97	16.08	18.77	13.54
07/12/00	11.06	14.07	9.43	16.37	19.42	13.69
07/13/00	10.86	14.07	8.81	15.86	18.93	12.77
07/14/00	10.78	13.92	8.66	15.87	18.61	12.77
07/15/00	10.97	13.92	8.97	16.23	18.93	13.54
07/16/00	11.15	14.07	9.74	16.42	18.93	14.47
07/17/00	10.82	13.92	8.81	15.66	18.28	13.08
07/18/00	10.66	13.92	8.36	15.55	18.44	12.46
07/19/00	10.60	13.76	8.36	15.56	18.44	12.30
07/20/00	10.82	14.07	8.36	15.96	18.77	12.92
07/21/00	10.99	14.38	8.66	16.29	19.42	13.08
07/22/00	11.09	14.38	8.81	16.58	19.42	13.84
07/23/00	10.96	14.07	8.51	16.24	19.09	13.08
07/24/00	11.14	14.23	9.12	16.52	19.26	13.69
07/25/00	11.17	14.23	9.28	16.50	19.09	14.00
07/26/00	11.11	14.23	9.28	16.34	18.77	14.00
07/27/00	10.85	14.23	8.66	15.85	18.44	13.08
07/28/00	10.79	13.92	8.51	15.75	18.61	12.61
07/29/00	11.23	14.23	9.12	16.48	19.26	13.54
07/30/00	12.02	14.86	10.21	17.79	20.23	15.26
07/31/00	12.45	15.17	10.52	18.49	21.04	16.04

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2000

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	12.87	15.49	11.44	19.57	21.71	17.64
08/02/00	12.45	14.69	10.98	19.14	21.04	17.16
08/03/00	12.51	15.01	10.98	19.17	21.21	17.32
08/04/00	12.58	15.49	10.98	18.99	21.04	16.84
08/05/00	12.19	15.17	10.37	18.43	20.72	16.04
08/06/00	12.10	14.86	10.68	18.04	20.07	15.89
08/07/00	11.73	14.38	10.37	17.48	19.74	15.41
08/08/00	11.44	14.23	9.89	16.83	19.09	14.62
08/09/00	11.09	13.92	9.28	16.22	18.61	13.69
08/10/00	10.69	13.61	8.66	M	M	M
08/11/00	10.49	13.61	8.20			
08/12/00	10.60	13.76	8.36			
08/13/00	10.66	13.61	8.81			
08/14/00	10.71	13.76	8.51			
08/15/00	11.22	14.07	9.43			
08/16/00	11.44	14.23	9.74	16.62	19.09	14.31
08/17/00	11.31	14.07	9.74	16.58	18.77	14.31
08/18/00	10.56	13.46	8.81	15.54	17.80	13.08
08/19/00	9.89	12.68	7.89	14.27	16.68	11.52
08/20/00	9.79	12.68	7.74	14.11	16.52	11.52
08/21/00	9.93	12.84	7.89	14.33	16.84	11.68
08/22/00	10.13	12.99	8.04	14.72	17.16	11.99
08/23/00	10.59	13.30	8.97	15.23	17.48	12.92
08/24/00	10.69	13.46	8.81	15.27	17.80	12.46
08/25/00	11.68	13.92	10.52	16.81	18.93	14.94
08/26/00	11.94	14.23	10.83	17.61	19.42	15.89
08/27/00	11.78	14.23	10.37	17.22	19.42	15.09
08/28/00	11.57	13.61	10.21	16.99	18.93	15.09
08/29/00	11.24	11.60	10.83	16.52	17.16	15.89
08/30/00	11.11	12.37	10.37	16.09	17.32	15.26
08/31/00	10.41	12.22	9.43	15.07	16.52	13.54

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2000

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	9.22	9.89	8.81	13.64	14.94	12.77
09/02/00	9.38	10.83	8.51	13.46	14.78	12.46
09/03/00	9.25	10.52	8.04	13.30	14.62	11.99
09/04/00	8.72	10.52	7.43	12.48	14.31	10.75
09/05/00	8.41	10.98	6.66	12.09	14.31	9.82
09/06/00	8.41	10.98	6.51	12.05	14.62	9.35
09/07/00	8.92	11.44	7.12	12.64	15.26	9.97
09/08/00	9.28	11.76	7.74	13.27	15.57	10.91
09/09/00	9.18	11.60	7.28	13.28	15.57	10.91
09/10/00	9.48	11.91	7.74	13.67	16.04	11.22
09/11/00	9.36	12.06	7.28	13.82	16.21	11.37
09/12/00	9.44	10.83	7.89	13.62	15.26	11.37
09/13/00	10.73	12.68	9.28	15.21	17.48	13.08
09/14/00	11.05	13.30	9.74	16.13	18.28	14.00
09/15/00	10.81	13.46	9.12	16.08	18.28	13.84
09/16/00	10.20	12.99	8.51	14.93	17.48	12.14
09/17/00	10.57	12.99	8.97	15.48	17.96	12.92
09/18/00	10.72	13.14	8.97	15.83	17.96	13.54
09/19/00	10.86	12.99	9.12	16.04	17.96	13.84
09/20/00	11.27	13.61	9.74	16.52	18.77	14.31
09/21/00	11.03	13.14	9.74	16.16	17.80	14.47
09/22/00	9.38	10.21	8.66	13.79	15.41	12.92
09/23/00	8.61	9.89	7.12	12.54	14.00	10.59
09/24/00	8.99	11.44	7.43	12.88	15.41	10.44
09/25/00	9.11	11.44	7.58	13.13	15.41	10.91
09/26/00	9.01	11.14	7.28	13.13	15.09	10.91
09/27/00	9.40	11.60	8.04	13.48	15.57	11.37
09/28/00	9.48	11.44	8.20	13.52	15.41	11.52
09/29/00	9.57	11.76	8.04	13.49	15.57	11.37
09/30/00	9.75	11.91	8.20	13.96	16.36	11.83

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2000

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	9.61	11.76	8.20	14.05	16.04	11.83
10/02/00	9.53	11.76	8.04	13.84	16.04	11.52
10/03/00	9.43	11.44	7.89	13.79	15.73	11.68
10/04/00	9.26	11.29	7.74	13.28	15.26	11.22
10/05/00	9.45	11.44	8.04	13.46	15.73	11.37
10/06/00	9.55	11.29	8.20	13.71	15.73	11.52
10/07/00	9.73	11.44	8.51	13.94	15.73	11.83
10/08/00	9.58	11.44	8.36	13.83	15.73	11.83
10/09/00	9.02	10.52	7.89	12.92	14.31	11.22
10/10/00	5.87	8.04	4.63	9.24	12.30	8.42
10/11/00	5.71	6.19	4.95	7.89	8.42	6.88
10/12/00	6.09	6.66	5.57	8.38	9.19	7.49
10/13/00	6.43	8.20	5.26	8.63	10.59	6.57
10/14/00	6.95	8.81	5.73	9.70	11.99	7.65
10/15/00	7.26	8.97	6.04	10.19	12.14	8.27
10/16/00	7.70	9.58	6.35	10.99	13.08	9.04
10/17/00	7.81	9.58	6.51	11.34	13.08	9.51
10/18/00	7.99	9.74	6.51	11.58	13.54	9.66
10/19/00	7.98	9.89	6.66	11.54	13.38	9.66
10/20/00	8.02	9.58	6.66	11.54	13.08	9.66
10/21/00	7.21	8.20	6.19	10.55	11.99	8.73
10/22/00	6.42	8.04	5.42	8.42	10.28	6.57
10/23/00	6.47	8.04	5.26	8.80	10.59	7.03
10/24/00	6.83	8.36	5.73	9.43	11.22	7.81
10/25/00	6.94	8.04	6.04	9.55	10.44	8.27
10/26/00				8.74	9.82	7.65
10/27/00						
10/28/00						
10/29/00						
10/30/00						
10/31/00						

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2001

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	7.1	10.0	4.8	11.8	14.6	9.2
05/02/01	6.2	8.7	4.5	10.6	12.1	7.8
05/03/01	5.3	8.0	3.4	7.4	10.6	4.4
05/04/01	5.8	8.7	3.7	8.2	12.0	5.1
05/05/01	6.9	9.7	4.8	10.1	13.7	7.2
05/06/01	7.7	10.7	5.4	11.7	15.4	8.7
05/07/01	8.5	11.8	6.2	13.1	17.1	10.1
05/08/01	8.4	11.1	6.2	12.8	16.5	9.6
05/09/01	8.5	11.3	6.3	12.7	15.9	9.8
05/10/01	8.7	11.4	6.5	12.9	16.2	9.9
05/11/01	8.9	11.8	7.1	13.3	17.0	10.7
05/12/01	8.5	9.6	7.7	12.9	14.6	11.3
05/13/01	8.7	11.8	6.8	12.6	15.9	10.1
05/14/01	8.7	11.8	6.3	12.4	16.0	9.3
05/15/01	9.0	11.6	7.0	13.0	15.7	10.4
05/16/01	9.7	12.7	7.7	14.4	17.6	11.8
05/17/01	9.7	13.0	7.7	14.3	17.6	12.0
05/18/01	9.2	12.5	7.3	13.7	16.8	11.2
05/19/01	9.6	12.7	7.4	13.8	17.4	10.6
05/20/01	9.8	12.8	7.4	14.3	17.8	10.7
05/21/01	10.3	13.5	8.0	15.2	18.6	11.8
05/22/01	10.7	13.8	8.7	15.9	19.0	13.0
05/23/01	10.7	13.9	8.5	16.0	19.4	13.0
05/24/01	10.5	13.9	8.4	15.8	19.0	13.0
05/25/01	10.2	13.5	8.4	15.0	18.4	12.7
05/26/01	9.5	12.5	7.7	13.6	16.8	10.9
05/27/01	9.4	12.7	7.6	13.4	16.8	10.7
05/28/01	9.2	12.1	7.6	12.8	15.7	10.6
05/29/01	9.7	13.0	7.7	13.5	16.8	10.7
05/30/01	10.4	13.8	8.4	15.0	18.7	11.6
05/31/01	10.9	14.2	8.8	16.2	19.5	13.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2001

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	10.7	13.8	8.7	16.1	19.2	13.3
06/02/01	9.4	12.4	7.7	13.8	16.6	11.6
06/03/01	8.5	11.6	6.5	11.6	14.7	8.9
06/04/01	8.8	11.8	6.8	12.1	15.2	9.5
06/05/01	8.9	11.9	7.1	12.5	15.4	9.9
06/06/01	9.8	13.1	7.7	13.7	17.1	10.7
06/07/01	10.1	13.6	7.9	14.9	18.4	11.8
06/08/01	9.8	13.3	7.6	14.7	17.9	11.6
06/09/01	9.8	12.8	7.7	14.2	17.1	11.5
06/10/01	9.7	12.7	8.0	14.0	16.8	11.6
06/11/01	9.3	12.2	7.4	13.4	16.3	10.7
06/12/01	9.3	12.4	7.6	13.9	17.0	11.3
06/13/01	8.7	11.9	6.5	12.7	15.5	9.6
06/14/01	9.2	12.4	7.1	13.2	16.5	10.4
06/15/01	9.7	13.0	7.4	14.1	17.3	11.0
06/16/01	9.9	13.1	7.6	14.8	17.9	11.6
06/17/01	10.1	13.1	8.0	15.2	18.1	12.4
06/18/01	9.8	13.0	7.4	14.6	17.6	11.5
06/19/01	9.9	13.1	7.7	14.7	17.8	11.6
06/20/01	10.4	13.6	8.4	15.6	18.4	12.7
06/21/01	10.9	14.1	8.7	16.5	19.4	13.5
06/22/01	11.2	14.2	9.3	17.2	19.9	14.6
06/23/01	11.0	13.9	9.4	16.7	19.4	14.4
06/24/01	9.9	12.4	8.7	15.0	17.1	12.9
06/25/01	9.4	12.4	7.6	13.6	16.2	11.0
06/26/01	10.1	12.8	8.7	14.7	17.1	12.7
06/27/01	10.3	12.8	9.1	15.1	17.4	13.5
06/28/01	10.1	13.3	8.0	14.8	17.8	12.0
06/29/01	10.7	13.9	8.7	16.0	19.0	13.2
06/30/01	10.9	14.1	8.7	16.5	19.4	13.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2001

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	11.3	14.4	9.3	17.1	19.9	14.4
07/02/01	11.8	14.9	9.7	17.9	20.7	14.9
07/03/01	12.4	15.3	10.7	19.1	21.8	16.5
07/04/01	12.3	13.9	11.4	19.6	21.0	18.4
07/05/01	12.3	15.2	10.8	19.3	21.7	17.1
07/06/01	11.5	11.9	11.0	18.5	19.0	18.1
07/07/01	11.3	12.2	10.8	18.6	19.7	17.8
07/08/01	11.5	12.8	10.4	18.8	21.0	16.8
07/09/01	11.7	14.4	9.9	18.6	21.0	16.3
07/10/01	11.6	14.2	10.0	18.1	20.3	16.0
07/11/01	11.4	14.1	10.0	17.6	19.9	15.9
07/12/01	10.8	13.8	9.0	16.5	19.0	14.0
07/13/01	10.6	13.0	8.7	16.2	18.6	13.7
07/14/01	10.5	13.3	9.0	16.2	18.6	13.8
07/15/01	10.1	13.0	8.2	15.3	17.8	12.7
07/16/01	10.1	12.8	8.4	15.2	17.4	12.9
07/17/01	10.1	13.0	8.4	15.3	17.8	12.9
07/18/01	10.4	13.1	8.7	15.6	18.1	13.3
07/19/01	10.1	12.8	8.2	15.5	17.9	13.0
07/20/01	10.3	13.1	8.7	15.6	18.1	13.2
07/21/01	10.3	13.0	8.7	15.5	17.9	13.2
07/22/01	10.1	13.0	8.0	15.3	17.8	12.7
07/23/01	10.3	13.0	8.5	15.5	17.9	13.0
07/24/01	10.8	13.5	9.0	16.3	18.7	13.7
07/25/01	12.0	16.3	9.3	17.4	19.7	14.7
07/26/01	13.5	18.3	11.1	18.3	20.7	16.2
07/27/01	12.9	18.3	9.9	17.5	19.9	14.7
07/28/01	12.6	18.2	9.7	17.0	19.2	14.3
07/29/01	12.2	17.5	9.6	16.5	18.9	14.0
07/30/01	11.5	16.1	9.1	16.1	17.9	13.8
07/31/01	11.7	17.2	8.5	16.7	19.0	14.3

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2001

	Sheepthief Creek			Ordinance Creek		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	12.5	18.0	9.7	17.0	19.5	14.3
08/02/01	13.0	18.0	10.5	17.6	19.9	15.2
08/03/01	12.8	17.4	11.0	17.7	19.7	15.7
08/04/01	11.7	16.9	8.5	16.7	18.9	14.3
08/05/01	11.4	17.4	7.6	16.3	18.7	13.3
08/06/01	12.8	17.5	9.6	17.0	19.7	14.1
08/07/01	14.1	18.7	11.8	18.5	20.8	16.2
08/08/01	12.9	14.9	11.4	19.1	21.2	17.1
08/09/01	12.1	14.5	10.7	18.7	20.5	16.5
08/10/01	12.1	14.5	10.5	18.4	20.3	16.3
08/11/01	11.7	14.5	9.7	17.8	20.0	15.4
08/12/01	11.6	14.2	9.7	17.8	19.7	15.5
08/13/01	11.5	14.1	9.7	17.6	19.7	15.2
08/14/01	11.4	13.9	9.7	17.4	19.5	14.9
08/15/01	11.3	13.9	9.6	17.3	19.5	15.1
08/16/01	11.4	13.8	9.6	17.4	19.5	14.9
08/17/01	11.5	13.8	9.7	17.7	19.9	15.2
08/18/01	11.9	14.2	10.2	18.0	20.2	15.9
08/19/01	11.6	14.2	10.0	17.8	19.7	15.7
08/20/01	11.2	13.6	9.7	17.0	18.9	14.9
08/21/01	10.5	12.5	9.3	15.8	17.3	14.1
08/22/01	10.3	12.5	8.8	15.2	17.1	13.2
08/23/01	10.1	12.7	8.2	15.3	17.3	13.2
08/24/01	10.2	12.8	8.2	15.7	17.9	13.3
08/25/01	11.0	13.6	9.1	16.5	19.0	14.0
08/26/01	11.4	13.9	9.7	17.3	19.5	14.7
08/27/01	11.6	14.1	9.9	17.6	19.5	15.4
08/28/01	11.7	14.2	9.9	17.8	19.9	15.4
08/29/01	11.6	13.9	9.9	17.9	19.7	15.9
08/30/01	11.2	13.3	9.9	17.1	18.6	15.4
08/31/01	10.9	13.3	9.3	16.4	18.4	14.1

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2001

	Sheepthief Creek			Ordinance Creek		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
09/01/01	10.8	13.3	9.0	16.4	18.6	14.1
09/02/01	11.1	13.5	9.4	16.7	18.9	14.3
09/03/01	11.4	12.8	10.2	17.5	19.2	15.7
09/04/01	11.3	13.6	9.7	17.2	19.2	14.9
09/05/01	11.3	13.5	10.0	17.3	19.0	15.5
09/06/01	10.3	12.4	8.7	15.6	17.3	13.5
09/07/01	10.3	12.5	8.8	15.4	17.4	13.3
09/08/01	10.2	12.5	8.5	15.4	17.6	13.2
09/09/01	10.2	12.4	8.8	15.5	17.6	13.2
09/10/01	10.5	12.5	9.0	15.6	17.6	13.2
09/11/01	10.8	12.2	10.0	16.1	17.3	15.1
09/12/01	10.2	12.2	8.7	15.3	17.1	13.0
09/13/01	9.6	12.1	7.7	14.7	16.8	12.3
09/14/01	9.5	11.9	7.6	14.6	16.8	12.1
09/15/01	9.5	11.8	7.9	14.6	16.5	12.3
09/16/01	9.6	11.8	8.0	14.6	16.5	12.4
09/17/01	9.7	12.1	8.2	14.7	16.6	12.6
09/18/01	10.1	12.4	8.5	15.2	17.3	12.9
09/19/01	10.2	12.4	8.7	15.3	17.3	13.2
09/20/01	10.4	12.5	9.0	15.6	17.6	13.7
09/21/01	10.2	12.4	8.5	15.4	17.3	13.3
09/22/01	10.2	12.2	8.8	15.3	17.3	13.3
09/23/01	10.0	11.6	8.7	15.0	16.8	13.0
09/24/01	9.8	12.1	8.0	14.7	16.8	12.4
09/25/01	10.9	12.7	9.6	16.0	17.6	14.9
09/26/01	9.7	11.9	8.0	14.4	16.3	12.1
09/27/01	9.8	11.8	8.4	14.3	16.5	12.0
09/28/01	9.3	11.3	7.9	14.0	15.9	12.1
09/29/01	9.4	11.6	8.0	13.5	15.7	11.3
09/30/01	9.8	11.9	8.4	14.3	16.6	12.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix D: Daily Water Temperatures in the Vicinity of the Big Creek Basin, Undiverted Tributaries, 2001

	Sheepthief Creek			Ordinance Creek		
Date	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
10/01/01	10.2	11.8	8.8	15.4	17.6	13.3
10/02/01	10.4	12.4	9.0	15.5	17.4	13.5
10/03/01	10.4	12.2	9.0	15.6	17.4	13.7
10/04/01	10.2	12.1	9.0	15.5	17.3	13.7
10/05/01	9.7	11.3	8.8	14.8	16.0	13.7
10/06/01	8.8	10.5	7.6	13.1	14.7	11.3
10/07/01	8.5	10.5	7.0	12.6	14.6	10.6
10/08/01	8.8	10.4	7.4	13.1	14.7	11.3
10/09/01	8.2	10.0	6.5	12.7	14.3	10.9
10/10/01	8.0	9.9	6.3	12.0	14.0	10.1
10/11/01	8.2	9.6	7.1	12.2	13.8	10.6
10/12/01	8.2	10.2	6.8	11.9	13.8	10.1
10/13/01	8.2	10.2	6.5	12.1	14.1	9.9
10/14/01	8.3	10.2	6.8	12.2	14.3	10.3
10/15/01	8.5	10.2	7.3	12.6	14.6	10.7
10/16/01	8.5	10.0	7.4	12.6	14.3	10.9
10/17/01	8.3	9.7	7.3	12.3	13.7	10.7
10/18/01	8.1	10.0	6.8	12.0	14.0	10.3
10/19/01	8.3	9.9	7.1	12.1	13.7	10.4
10/20/01	8.2	9.7	7.0	12.2	13.8	10.4
10/21/01	8.0	9.6	6.8	11.9	13.5	10.3
10/22/01	7.7	9.1	6.5	11.3	12.9	9.6
10/23/01	7.9	9.4	7.0	11.3	12.9	9.6
10/24/01	7.4	9.3	5.9	10.9	12.6	9.0
10/25/01	7.6	9.3	6.2	10.9	12.9	9.0
10/26/01	7.7	9.3	6.5	11.1	12.9	9.5
10/27/01	7.6	9.0	6.5	11.0	12.6	9.5
10/28/01				10.8	12.4	9.3
10/29/01				10.7	11.8	9.3
10/30/01				11.2	11.6	9.8
10/31/01				10.1	11.6	8.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

APPENDIX E

DAILY WATER TEMPERATURE DATA FOR THE STEVENSON CREEK DRAINAGE

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00												
05/02/00												
05/03/00												
05/04/00												
05/05/00												
05/06/00												
05/07/00												
05/08/00												
05/09/00												
05/10/00												
05/11/00												
05/12/00												
05/13/00												
05/14/00												
05/15/00												
05/16/00												
05/17/00												
05/18/00												
05/19/00												
05/20/00												
05/21/00												
05/22/00												
05/23/00												
05/24/00												
05/25/00												
05/26/00												
05/27/00												
05/28/00												
05/29/00												
05/30/00												
05/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00												
06/02/00												
06/03/00												
06/04/00												
06/05/00												
06/06/00												
06/07/00												
06/08/00												
06/09/00												
06/10/00												
06/11/00												
06/12/00												
06/13/00				10.25	11.41	9.39						
06/14/00												
06/15/00												
06/16/00												
06/17/00												
06/18/00												
06/19/00												
06/20/00	11.48	12.12	10.73				15.03	20.17	12.10	12.43	14.77	10.74
06/21/00	11.59	14.60	10.58				15.13	19.37	12.26	12.58	14.93	10.74
06/22/00	11.33	12.28	10.58				14.86	19.69	12.57	12.40	14.30	10.74
06/23/00	11.56	13.21	10.89				14.97	20.17	13.34	12.45	14.30	10.90
06/24/00	11.62	12.59	11.04				15.43	20.99	12.72	12.85	14.77	11.05
06/25/00	11.76	14.60	11.19				14.89	20.17	12.41	12.81	14.93	11.21
06/26/00	11.76	13.06	11.34				15.35	19.85	12.72	12.87	14.93	11.52
06/27/00	11.97	15.07	11.04				15.45	19.85	12.72	12.76	13.99	11.52
06/28/00	12.06	14.76	11.04				15.46	21.32	12.57	13.07	15.88	11.67
06/29/00	12.36	14.92	10.58				15.93	21.48	13.03	13.15	14.93	11.21
06/30/00	12.20	13.67	10.73				15.33	21.15	12.88	13.20	14.77	11.36

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	12.76	16.02	11.66				15.50	21.15	13.34	13.62	16.35	11.83
07/02/00	12.30	13.52	11.50				16.36	22.15	13.65	13.82	16.19	11.98
07/03/00	12.47	14.76	11.66				16.28	21.65	13.65	13.73	15.56	12.14
07/04/00							16.39	21.48	13.65	14.05	15.88	12.14
07/05/00							16.40	20.99	14.11	13.96	15.72	12.14
07/06/00							16.43	21.32	13.80	14.17	15.72	12.29
07/07/00	12.84	14.29	11.97				16.42	20.99	13.96	14.36	15.88	12.44
07/08/00	12.89	16.02	12.12				16.05	21.32	14.58	14.16	15.72	12.29
07/09/00	13.47	17.46	12.12				15.70	20.17	13.65	14.36	15.88	12.29
07/10/00	13.20	15.55	12.59				16.14	20.01	13.96	14.61	15.72	12.60
07/11/00	13.35	16.18	12.59				16.63	20.66	14.27	14.79	15.72	13.37
07/12/00	13.93	15.39	12.59				16.25	21.48	14.58	14.78	16.51	12.60
07/13/00	13.82	15.39	13.06				16.57	21.82	14.58	14.72	16.67	12.76
07/14/00	13.40	14.44	12.90				15.69	17.27	14.58	14.76	16.67	12.76
07/15/00	13.57	14.29	13.06				15.28	16.16	13.96	14.62	16.19	12.60
07/16/00	13.57	13.98	13.21				16.10	21.65	14.42	14.53	16.51	12.76
07/17/00							15.73	22.15	14.11	14.79	16.35	12.91
07/18/00	13.60	14.76	13.21				17.48	22.65	15.05	15.30	16.67	13.37
07/19/00	14.22	18.42	12.12				16.72	21.65	15.05	15.45	17.31	13.07
07/20/00							17.40	21.65	14.89	15.92	17.31	13.37
07/21/00							16.87	21.98	14.73	15.76	17.31	13.53
07/22/00							16.72	22.48	15.21	15.64	17.31	13.53
07/23/00	15.68	20.19	12.28				16.86	22.32	15.84	15.81	17.62	13.68
07/24/00				11.34	12.18	10.48	19.15	22.65	15.05	16.08	17.47	13.83
07/25/00				11.33	12.81	10.48	19.53	22.65	15.53	16.04	17.62	13.99
07/26/00				11.46	12.65	9.86	19.06	22.48	16.00	15.50	17.31	13.99
07/27/00							19.55	22.32	16.32	15.48	17.31	13.83
07/28/00							19.50	21.98	16.64	15.97	17.62	13.99
07/29/00							19.68	21.98	16.96	16.06	17.78	13.99
07/30/00							19.70	22.15	17.27	16.00	17.62	13.99
07/31/00	17.25	21.68	13.52				20.31	22.48	17.43	16.17	17.78	13.99

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	18.15	21.34	14.76				20.16	22.82	17.27	16.14	17.78	14.61
08/02/00	17.32	19.55	14.13				20.53	23.15	17.43	16.61	18.11	15.08
08/03/00							20.50	22.65	17.75	15.58	16.99	14.61
08/04/00							20.83	22.82	17.75	15.97	17.14	14.14
08/05/00							20.78	22.65	17.75	16.15	17.94	14.30
08/06/00							20.89	22.65	18.07	16.28	19.08	14.46
08/07/00							20.43	22.48	18.07	15.98	17.31	14.14
08/08/00							20.59	22.15	18.72	15.95	17.47	14.46
08/09/00							20.42	22.32	18.07	16.35	18.11	14.46
08/10/00							19.93	21.98	19.04	16.44	17.94	14.30
08/11/00							20.54	21.65	18.56	16.73	17.78	14.61
08/12/00							20.44	21.98	17.91	16.73	17.78	14.61
08/13/00							20.50	21.98	19.04	16.49	17.62	14.61
08/14/00							20.55	21.98	18.72	16.65	17.62	14.61
08/15/00							20.43	21.65	19.37	16.42	17.47	14.61
08/16/00							20.48	21.65	19.37	16.63	17.78	14.77
08/17/00							20.65	22.48	19.37	16.64	17.78	14.61
08/18/00							20.62	21.98	19.21	16.63	17.78	14.77
08/19/00	18.84	19.55	16.82				20.41	21.65	18.72	16.47	17.47	14.61
08/20/00							20.55	21.32	19.69	16.38	17.14	14.61
08/21/00							20.48	21.32	19.21	16.40	17.14	14.77
08/22/00							20.41	21.48	18.56	16.31	17.14	14.77
08/23/00	16.45	19.71	9.64				20.25	21.32	18.88	16.17	16.83	14.93
08/24/00	17.04	19.87	9.02				20.26	21.15	18.88	16.47	16.83	15.08
08/25/00	17.03	20.19	12.28				20.45	21.32	19.21	16.41	17.14	14.93
08/26/00	17.34	21.34	12.59				20.53	21.65	19.21	16.37	17.14	14.93
08/27/00	17.25	21.01	11.50				20.60	21.82	19.53	16.54	17.47	15.24
08/28/00	18.09	21.18	12.12				20.64	21.65	19.69	16.95	17.31	15.88
08/29/00	17.32	20.36	10.73				20.60	21.48	19.21	16.62	17.31	15.40
08/30/00	16.19	19.71	9.18				20.51	20.99	19.37	16.36	17.14	15.88
08/31/00	14.28	19.39	8.25				20.31	20.66	19.53	16.41	17.14	15.24

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	14.38	19.23	6.24				19.97	20.49	19.21	16.60	16.99	15.24
09/02/00	12.85	18.09	6.71				19.64	19.85	19.53	16.34	16.51	15.72
09/03/00	14.49	17.77	6.39				19.59	19.85	19.04	16.21	16.35	16.03
09/04/00	11.85	18.42	5.31				19.30	19.69	18.39	16.01	16.19	15.88
09/05/00	14.37	18.74	3.90				19.04	19.37	18.39	15.75	16.03	15.56
09/06/00	14.86	18.09	3.12				19.06	19.53	18.23	15.55	15.88	15.40
09/07/00	12.67	24.56	5.93				18.89	19.37	18.56	15.50	16.03	15.40
09/08/00	14.84	19.23	7.17				18.84	19.37	18.56	15.50	15.72	15.40
09/09/00	14.41	19.71	6.55				18.97	19.53	18.72	15.47	15.72	15.24
09/10/00	12.50	22.01	7.17				18.94	19.37	18.72	15.40	15.56	15.24
09/11/00	14.41	18.74	7.63				19.27	20.17	18.72	15.39	16.03	15.24
09/12/00	15.75	18.42	8.56				18.86	19.37	18.56	15.36	15.88	15.24
09/13/00	16.31	19.55	12.43				18.81	19.69	18.56	15.47	15.56	15.24
09/14/00	15.85	18.58	9.80				18.99	19.69	18.39	15.55	15.72	15.40
09/15/00	15.15	19.07	7.79				19.08	19.85	18.39	15.57	15.72	15.56
09/16/00	13.07	20.03	8.56				19.08	19.69	18.56	15.59	16.19	15.56
09/17/00	14.01	20.19	10.73				18.95	20.01	17.75	15.65	16.19	15.56
09/18/00	15.07	19.07	9.80				19.11	20.17	18.72	15.59	16.19	15.40
09/19/00	16.24	19.87	10.11				19.36	20.01	18.72	15.66	16.19	15.56
09/20/00	16.56	19.39	11.66				19.51	20.17	18.56	15.73	16.03	15.56
09/21/00	15.45	19.23	8.41				19.44	19.85	18.88	15.74	15.88	15.72
09/22/00	13.88	18.58	5.46				19.01	19.37	18.07	15.72	15.72	15.56
09/23/00	7.07	11.34	2.32				18.62	18.88	17.59	15.47	15.56	15.40
09/24/00	9.62	13.98	5.62				18.60	19.21	17.75	15.30	15.72	15.24
09/25/00	14.19	17.13	5.62	15.39	15.62	15.14	18.79	19.21	18.56	15.27	15.56	15.24
09/26/00	15.92	16.98	15.39	15.68	16.73	15.14	18.92	19.21	18.56	15.31	15.56	15.08
09/27/00	15.72	16.02	15.39	15.71	16.25	15.30	19.00	19.37	18.56	15.23	15.56	15.08
09/28/00	15.82	16.34	15.39	15.72	16.41	15.30	18.83	19.37	18.39	15.12	15.40	15.08
09/29/00	15.90	16.34	15.55	15.79	16.41	15.46	18.80	19.37	18.39	15.14	15.56	14.93
09/30/00	16.26	17.61	15.71	15.97	17.05	15.62	18.85	19.53	18.56	15.20	15.24	15.08

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	16.52	17.61	15.87	16.09	16.57	15.78	18.73	19.04	18.39	15.17	15.40	15.08
10/02/00	14.77	17.13	9.64				18.91	19.53	18.07	15.11	15.56	14.93
10/03/00	12.00	16.98	8.25				18.90	19.37	18.39	15.05	15.24	14.93
10/04/00	12.77	18.09	7.79				18.50	18.88	18.07	15.00	15.24	14.93
10/05/00	13.94	18.26	8.72				18.50	19.04	18.23	15.03	15.24	14.77
10/06/00	14.48	18.26	9.33				18.58	18.88	18.23	14.99	15.24	14.77
10/07/00	14.92	18.74	8.56				18.78	19.53	18.23	14.93	15.24	14.77
10/08/00	16.79	18.74	6.86				18.69	19.53	18.23	14.92	15.24	14.77
10/09/00	16.56	18.09	2.96				18.34	18.72	17.75	14.80	14.93	14.61
10/10/00	12.80	17.61	0.73				17.68	18.07	17.11	14.37	14.77	14.14
10/11/00	12.86	16.82	-0.39				17.15	17.43	16.32	14.07	14.14	13.99
10/12/00	12.51	16.34	1.53				16.88	17.11	16.16	13.90	13.99	13.83
10/13/00	12.95	16.18	1.69				16.67	17.43	15.84	13.82	13.99	13.68
10/14/00	7.90	14.92	2.32				16.59	17.43	14.89	13.82	14.14	13.53
10/15/00	6.23	10.11	2.64				16.76	17.59	16.32	13.69	13.83	13.53
10/16/00	10.56	15.39	3.59				16.59	17.91	14.42	13.61	13.83	13.37
10/17/00	8.12	14.13	4.06				16.55	17.91	14.11	13.58	13.83	13.37
10/18/00	8.65	15.23	4.52				16.90	17.91	16.32	13.44	13.68	13.37
10/19/00	11.82	14.76	4.37				17.04	18.23	16.32	13.35	13.53	13.07
10/20/00	13.59	13.98	13.37				16.76	17.43	16.32	13.34	13.53	13.07
10/21/00	13.35	13.52	13.06				16.20	16.64	15.68	13.14	13.37	12.76
10/22/00	12.91	13.21	12.74							12.73	12.91	12.60
10/23/00	12.74	13.21	12.59							12.72	12.91	12.60
10/24/00	11.43	13.37	3.59							12.69	12.91	12.44
10/25/00	4.42	7.94	2.01							12.49	12.76	12.29
10/26/00										12.25	12.44	11.98
10/27/00										12.05	12.14	11.83
10/28/00										12.05	12.14	11.83
10/29/00										11.68	11.98	11.52
10/30/00										11.34	11.52	11.21
10/31/00												

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	NF Stevenson downstream of Tunnel 7			NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00									
05/02/00									
05/03/00									
05/04/00									
05/05/00									
05/06/00									
05/07/00									
05/08/00									
05/09/00									
05/10/00									
05/11/00									
05/12/00									
05/13/00									
05/14/00									
05/15/00									
05/16/00									
05/17/00									
05/18/00									
05/19/00									
05/20/00									
05/21/00									
05/22/00									
05/23/00									
05/24/00									
05/25/00									
05/26/00									
05/27/00									
05/28/00									
05/29/00									
05/30/00									
05/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	NF Stevenson downstream of Tunnel 7			NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00	8.74	10.85	6.83	11.94	16.16	8.38			
06/02/00	8.78	11.00	6.83	11.97	16.32	8.23			
06/03/00	9.36	11.62	7.44	12.81	17.43	9.00			
06/04/00	9.55	11.47	7.91	13.20	17.28	9.93			
06/05/00	9.55	11.47	8.07	13.10	17.12	9.93			
06/06/00	9.51	11.78	7.60	12.74	16.96	9.00			
06/07/00	9.57	11.47	7.91	12.86	16.32	9.62			
06/08/00	7.33	9.14	6.05	9.40	11.94	7.30			
06/09/00	7.78	9.30	6.36	8.81	12.41	5.91			
06/10/00	8.58	10.54	6.98	10.51	14.73	6.99			
06/11/00	9.22	11.47	7.44	11.56	16.00	7.77			
06/12/00	9.86	11.78	8.37	12.64	16.16	9.47			
06/13/00	10.57	12.71	8.83	14.53	19.05	10.87			
06/14/00	10.85	13.17	8.99	15.32	20.02	11.32			
06/15/00	11.33	13.32	9.61	16.42	20.67	12.72			
06/16/00	11.57	13.63	10.23	17.08	21.16	13.80			
06/17/00	11.48	13.32	10.07	16.86	20.83	13.49			
06/18/00	11.44	13.02	10.07	16.42	20.34	13.19			
06/19/00	11.03	12.71	9.45	15.46	19.53	11.94			
06/20/00	11.37	13.32	9.76	15.94	20.18	12.26	13.66	15.84	11.48
06/21/00	11.56	13.63	9.92	16.23	20.50	12.41	13.90	16.16	11.79
06/22/00	11.43	13.32	10.07	16.65	20.67	13.19	14.15	16.16	12.25
06/23/00	11.31	12.71	10.23	15.62	19.53	12.26	13.92	16.16	11.94
06/24/00	11.29	12.55	10.23	15.08	19.05	11.32	13.65	15.84	11.48
06/25/00	11.34	12.39	10.54	15.46	19.53	12.10	14.06	16.32	12.09
06/26/00	11.34	12.86	10.38	15.21	19.69	11.79	14.04	16.32	12.09
06/27/00	11.49	13.02	10.38	15.52	20.02	11.79	14.07	16.47	11.94
06/28/00	11.72	13.32	10.69	16.48	20.50	13.03	14.58	16.63	12.72
06/29/00	11.92	13.32	10.85	16.68	20.67	13.19	14.79	17.11	12.72
06/30/00	12.03	13.32	11.16	16.53	20.34	13.49	14.71	16.95	12.87

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	NF Stevenson downstream of Tunnel 7			NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	11.71	13.32	10.69	15.14	18.89	11.79	13.69	16.16	11.79
07/02/00	11.56	13.02	10.38	14.29	18.40	10.71	12.86	15.37	10.71
07/03/00	11.68	13.02	10.85	14.23	18.08	11.17	12.62	14.89	10.86
07/04/00	11.56	13.17	10.54	13.33	17.28	9.78	11.88	14.26	9.77
07/05/00	11.67	13.17	10.54	13.43	17.28	10.09	11.85	14.26	9.77
07/06/00	11.91	13.48	10.85	13.80	17.76	10.24	12.02	14.58	9.92
07/07/00	12.04	13.63	10.85	13.91	17.92	10.40	12.14	14.58	10.08
07/08/00	12.03	13.63	11.00	14.13	18.24	10.56	12.22	14.89	10.08
07/09/00	11.91	13.48	10.69	14.27	18.56	10.40	12.25	14.89	9.92
07/10/00	12.17	13.63	11.00	14.88	19.05	11.32	12.63	15.05	10.55
07/11/00	12.34	13.63	11.31	15.49	19.53	11.94	13.16	15.84	11.02
07/12/00	12.50	14.09	11.62	15.52	19.53	12.10	13.39	16.16	11.32
07/13/00	12.50	14.09	11.31	15.20	19.37	11.48	13.19	16.00	10.86
07/14/00	12.31	13.63	11.31	15.31	19.69	11.32	13.19	16.00	10.86
07/15/00	12.32	13.63	11.31	15.65	19.69	12.10	13.44	16.00	11.32
07/16/00	12.45	13.78	11.47	16.01	19.86	13.03	13.74	16.32	12.09
07/17/00	12.40	13.63	11.47	15.45	19.53	11.79	13.35	16.16	11.17
07/18/00	12.66	13.94	11.62	15.12	19.21	11.32	13.14	16.00	10.86
07/19/00	12.79	14.25	11.93	15.24	19.69	11.32	13.20	16.16	10.86
07/20/00	12.78	14.09	11.62	15.48	20.02	11.48	13.16	16.32	10.55
07/21/00	12.89	14.41	11.47	15.51	19.86	11.48	13.32	16.47	10.86
07/22/00	12.69	13.94	11.62	16.12	20.34	12.41	13.78	16.95	11.48
07/23/00	12.48	13.78	11.47	15.74	20.18	11.63	13.60	16.63	11.02
07/24/00	12.91	13.94	11.93	15.89	20.18	12.41	13.79	16.79	11.48
07/25/00	13.31	14.25	12.39	15.70	19.69	12.26	13.77	16.63	11.48
07/26/00	13.41	14.56	12.39	15.33	19.21	11.94	13.77	16.79	11.63
07/27/00	13.11	14.41	12.09	15.18	19.37	11.48	13.54	16.79	11.17
07/28/00	13.12	14.25	12.09	14.85	18.89	11.02	13.28	16.47	10.71
07/29/00	13.17	14.09	12.09	15.20	19.53	11.48	13.47	16.63	11.02
07/30/00	13.28	14.09	12.39	16.41	20.18	13.03	14.42	17.27	12.09
07/31/00	13.46	14.41	12.39	17.00	20.67	13.80	14.96	17.75	12.72

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	NF Stevenson downstream of Tunnel 7			NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	13.80	14.56	12.86	17.63	20.67	15.05	15.73	17.91	13.95
08/02/00	14.02	14.72	13.17	16.64	19.05	14.42	15.35	17.11	13.64
08/03/00	14.02	14.56	13.32	16.85	20.34	14.27	15.24	17.59	13.49
08/04/00	14.20	15.19	13.32	17.22	20.99	14.11	15.51	18.39	13.33
08/05/00	13.88	14.56	13.02	16.75	20.67	13.49	15.22	17.91	12.87
08/06/00	13.89	14.56	13.02	16.50	20.34	13.34	15.04	17.75	12.72
08/07/00	13.86	14.88	13.02	15.98	19.69	13.03	14.55	16.79	12.41
08/08/00	13.93	14.72	13.02	15.65	19.53	12.41	14.25	17.11	11.79
08/09/00	13.84	14.56	12.86	15.15	18.89	11.79	13.83	16.63	11.17
08/10/00	14.10	14.88	13.17	14.73	18.72	11.32	13.45	16.32	10.86
08/11/00	13.98	14.88	12.86	14.49	18.72	10.71	13.09	16.16	10.24
08/12/00	13.90	14.72	13.02	14.64	18.89	10.71	13.16	16.16	10.24
08/13/00	14.08	15.19	13.02	14.73	18.72	11.17	13.28	16.00	10.55
08/14/00	14.10	15.03	13.02	14.55	18.72	10.87	13.11	16.00	10.24
08/15/00	14.22	15.03	13.32	15.39	19.37	11.94	13.75	16.47	11.17
08/16/00	14.15	14.88	13.32	15.67	19.69	12.41	14.03	16.63	11.63
08/17/00	14.21	15.03	13.32	15.53	19.21	12.41	14.09	16.47	11.79
08/18/00	14.18	15.03	13.32	14.53	18.40	11.32	13.41	15.53	11.02
08/19/00	14.13	15.03	13.02	13.51	17.43	10.09	12.42	14.58	9.92
08/20/00	14.03	15.03	13.17	13.52	17.59	9.93	12.15	14.58	9.61
08/21/00	14.25	15.35	13.02	13.60	17.59	9.93	12.10	14.58	9.61
08/22/00	14.18	15.19	13.32	13.83	17.76	10.40	12.20	14.58	9.77
08/23/00	14.46	15.67	13.32	14.19	17.92	11.17	12.46	14.58	10.24
08/24/00	14.70	15.98	13.48	14.28	18.24	10.87	12.47	14.73	10.08
08/25/00	14.54	15.35	13.63	15.95	19.69	13.34	13.73	15.68	11.79
08/26/00	14.63	15.51	13.94	16.42	19.86	13.80	14.68	16.32	12.87
08/27/00	14.69	15.83	13.78	16.00	19.69	13.03	14.48	16.16	12.25
08/28/00	14.47	15.35	13.63	15.74	19.05	12.88	14.25	15.68	12.25
08/29/00	14.38	14.88	13.78	14.83	15.68	13.96	13.84	14.89	13.33
08/30/00	14.71	15.35	14.25	14.69	16.96	13.34	13.76	15.21	12.56
08/31/00	14.65	15.83	13.78	13.77	16.16	11.79	12.75	13.95	11.32

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	NF Stevenson downstream of Tunnel 7			NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	13.99	14.56	13.63	12.28	13.49	11.02	10.95	12.41	9.92
09/02/00	14.08	14.72	13.63	12.61	16.00	10.56	10.63	12.09	9.61
09/03/00	14.13	14.88	13.63	12.74	15.05	11.02	10.70	12.56	8.99
09/04/00	14.10	15.03	13.32	11.74	14.42	9.62	9.87	12.09	7.92
09/05/00	14.10	15.19	13.17	11.79	15.37	8.84	9.16	12.56	6.83
09/06/00	14.16	15.03	13.32	11.54	15.21	8.38	8.61	14.42	4.34
09/07/00	14.32	15.35	13.32	11.98	15.84	8.84	9.43	16.00	4.49
09/08/00	14.41	15.19	13.63	12.66	16.32	9.78	10.03	16.47	5.74
09/09/00	14.32	15.19	13.48	12.52	16.16	9.47	9.63	16.16	5.43
09/10/00	14.38	15.03	13.63	12.83	16.48	9.78	9.63	15.05	5.59
09/11/00	14.41	15.19	13.48	12.57	16.00	9.47	9.46	15.37	4.97
09/12/00	14.54	15.03	13.78	12.23	14.42	9.62	9.98	15.21	5.43
09/13/00	14.76	15.51	14.09	14.03	17.28	11.32	12.12	16.47	8.38
09/14/00	14.68	15.19	14.09	14.72	18.08	12.10	11.90	13.95	9.30
09/15/00	14.71	15.19	14.09	14.51	17.92	11.63	12.34	13.95	10.55
09/16/00	14.87	15.67	14.09	13.55	17.28	10.40	11.55	13.18	9.61
09/17/00	14.90	15.51	14.09	13.89	17.43	11.17	11.69	13.18	9.92
09/18/00	14.99	15.51	14.25	14.04	17.59	11.17	11.72	13.03	9.92
09/19/00	14.96	15.51	14.41	14.37	17.59	11.63	12.00	13.18	10.39
09/20/00	14.88	15.19	14.41	14.68	18.08	12.10	12.27	13.49	10.71
09/21/00	14.91	15.35	14.56	14.54	17.43	12.26	12.29	13.18	11.02
09/22/00	14.85	15.19	14.41	12.34	13.65	11.48	10.93	12.56	10.24
09/23/00	14.84	15.19	14.41	11.09	12.72	9.00	9.27	10.24	8.08
09/24/00	15.04	15.35	14.88	11.93	15.53	9.16	9.58	11.17	7.92
09/25/00	15.00	15.35	14.72	12.17	15.53	9.47	9.37	10.86	7.77
09/26/00	14.01	15.35	13.02	12.02	14.73	9.16	9.28	10.55	7.77
09/27/00	15.01	15.35	14.25	14.42	16.79	12.10	9.42	10.55	7.92
09/28/00	15.04	15.19	14.88	14.12	16.16	13.03	9.46	10.39	8.23
09/29/00	14.92	15.19	14.72	13.85	16.48	12.10	9.38	10.71	7.92
09/30/00	15.00	15.19	14.88	13.97	16.64	12.26	9.58	10.86	8.08

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	NF Stevenson downstream of Tunnel 7			NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	14.97	15.19	14.88	13.77	16.48	12.10	9.54	10.39	8.23
10/02/00	14.93	15.35	14.56	14.36	16.64	12.10	9.43	10.39	8.08
10/03/00	14.39	14.56	14.09	12.73	15.37	10.40	9.39	10.24	8.08
10/04/00	14.32	14.56	14.09	12.23	15.05	9.93	9.06	9.92	7.77
10/05/00	14.28	14.56	14.09	12.35	15.21	9.93	8.98	10.08	7.61
10/06/00	14.30	14.56	14.09	12.69	15.37	10.56	9.17	10.08	7.92
10/07/00	14.26	14.41	14.09	12.96	15.68	10.87	9.46	10.39	8.23
10/08/00	14.16	14.25	14.09	12.80	15.53	10.71	9.43	10.24	8.23
10/09/00	14.42	14.72	13.94	11.46	13.03	9.47	8.91	9.77	7.77
10/10/00	13.89	14.09	13.63	8.64	11.02	7.77	6.69	8.99	6.06
10/11/00	13.63	13.78	13.48	7.57	8.08	6.84	5.72	6.06	5.28
10/12/00	13.46	13.63	13.32	8.34	9.47	7.46	6.05	6.83	5.43
10/13/00	13.36	13.48	13.17	8.53	10.40	6.68	5.98	7.30	4.81
10/14/00	13.45	13.78	13.17	9.49	12.10	7.46	6.13	7.30	4.97
10/15/00	13.30	13.48	13.17	9.54	11.94	7.46	6.20	7.61	4.97
10/16/00	13.30	13.48	13.02	10.04	12.41	8.08	6.45	7.61	5.28
10/17/00	13.28	13.63	13.02	10.09	12.26	7.92	6.45	7.46	5.28
10/18/00	13.20	13.32	13.02	10.21	12.41	8.23	6.74	7.92	5.59
10/19/00	13.09	13.32	13.02	9.94	12.41	7.77	6.61	7.77	5.43
10/20/00	13.05	13.17	12.86	9.86	11.79	7.92	6.61	7.61	5.43
10/21/00	12.91	13.17	12.71	9.51	11.17	8.23	6.75	7.46	6.06
10/22/00	12.49	12.71	12.24	8.22	10.40	6.53	5.26	6.21	4.34
10/23/00	12.42	12.55	12.24	8.14	10.40	6.37	4.97	5.90	4.03
10/24/00	12.40	12.55	12.24	8.50	10.56	6.68	5.09	6.06	4.03
10/25/00	12.29	12.39	11.93	8.50	9.93	7.15	5.39	6.21	4.49
10/26/00									
10/27/00									
10/28/00									
10/29/00									
10/30/00									
10/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/00									
05/02/00									
05/03/00									
05/04/00									
05/05/00									
05/06/00									
05/07/00									
05/08/00									
05/09/00									
05/10/00									
05/11/00									
05/12/00									
05/13/00									
05/14/00									
05/15/00									
05/16/00									
05/17/00									
05/18/00									
05/19/00									
05/20/00									
05/21/00									
05/22/00									
05/23/00									
05/24/00									
05/25/00									
05/26/00									
05/27/00									
05/28/00									
05/29/00									
05/30/00									
05/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/00	9.08	9.44	8.83						
06/02/00	9.28	9.60	8.98						
06/03/00	9.56	9.60	9.44						
06/04/00	9.68	9.76	9.60						
06/05/00	9.76	9.76	9.60						
06/06/00	9.83	9.91	9.76						
06/07/00	9.89	9.91	9.76						
06/08/00	9.91	9.91	9.91						
06/09/00	9.99	10.07	9.91	10.32	11.02	9.77			
06/10/00	10.07	10.07	10.07	10.65	11.33	10.24			
06/11/00	10.15	10.22	10.07	10.77	11.48	10.24			
06/12/00	10.29	10.38	10.22	11.09	11.79	10.56			
06/13/00	10.44	10.53	10.38	11.42	12.09	11.02			
06/14/00	10.53	10.53	10.38	11.53	12.25	11.02			
06/15/00	10.64	10.69	10.53	11.74	12.25	11.33			
06/16/00	10.72	10.84	10.69	11.78	12.41	11.48			
06/17/00	10.83	10.84	10.69	11.82	12.41	11.48			
06/18/00	10.88	10.99	10.84	11.82	12.41	11.48			
06/19/00	10.90	10.99	10.84	11.95	12.41	11.33			
06/20/00	10.93	11.15	10.84	13.84	16.63	11.63			
06/21/00	10.92	11.15	10.69	14.93	17.26	12.72	17.63	20.63	14.87
06/22/00	10.93	11.15	10.69	15.51	17.58	13.64	17.93	20.31	16.13
06/23/00	10.92	11.15	10.69	15.02	17.11	13.03	16.92	19.49	15.02
06/24/00	10.93	11.31	10.69	14.87	17.11	12.72	16.97	19.66	14.39
06/25/00	10.97	11.31	10.84	15.49	17.58	13.64	17.75	20.14	15.50
06/26/00	11.04	11.31	10.84	13.96	16.94	12.09	16.60	20.31	14.71
06/27/00	11.36	11.46	11.15	12.43	13.18	11.94	15.55	17.24	13.78
06/28/00	11.54	11.62	11.46	12.65	13.79	12.25	15.98	17.72	14.71
06/29/00	11.60	11.77	11.46	12.99	13.64	12.25	16.16	18.04	14.39
06/30/00	11.54	11.77	11.31	14.60	17.11	12.87	16.97	19.17	15.02

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/00	11.41	11.62	11.31	14.01	15.84	12.25	14.87	16.45	13.47
07/02/00	11.41	11.62	11.31	13.56	15.84	11.48	14.54	17.08	12.23
07/03/00	11.39	11.62	11.31	13.42	15.04	11.94	14.28	15.97	13.01
07/04/00	11.39	11.62	11.15	12.70	14.73	10.71	13.34	15.66	11.30
07/05/00	11.40	11.62	11.31	12.90	14.89	11.02	13.75	15.97	11.92
07/06/00	11.40	11.62	11.31	13.19	15.36	11.17	14.41	16.93	12.54
07/07/00	11.45	11.77	11.31	13.47	15.52	11.63	14.75	17.24	12.70
07/08/00	11.50	11.77	11.31	13.55	15.68	11.63	14.83	17.41	12.54
07/09/00	11.55	11.77	11.31	13.75	15.84	11.79	15.21	17.72	13.01
07/10/00	11.55	11.77	11.46	14.18	16.31	12.25	15.82	18.37	13.93
07/11/00	11.56	11.77	11.46	14.74	16.78	12.87	16.82	19.33	14.87
07/12/00	11.55	11.77	11.46	14.98	17.11	13.03	16.90	19.49	14.87
07/13/00	11.59	11.77	11.46	14.67	16.94	12.41	16.43	19.49	13.78
07/14/00	11.61	11.93	11.46	14.59	16.78	12.41	16.33	19.17	13.47
07/15/00	11.67	11.93	11.46	14.78	16.78	12.87	16.53	19.01	14.24
07/16/00	11.68	11.93	11.46	14.97	16.94	13.49	16.71	18.69	15.50
07/17/00	11.70	11.93	11.46	14.44	16.47	12.56	15.94	18.37	13.93
07/18/00	11.72	12.08	11.46	14.44	16.63	12.41	15.92	18.69	13.32
07/19/00	11.73	12.08	11.62	14.50	16.63	12.25	15.84	18.69	13.01
07/20/00	11.75	12.08	11.46				16.21	19.01	13.62
07/21/00	11.77	12.08	11.62				16.66	19.49	14.24
07/22/00	11.81	12.08	11.62				16.79	19.49	14.71
07/23/00	11.84	12.08	11.62				16.37	19.33	13.62
07/24/00	11.89	12.24	11.77				16.41	19.01	14.24
07/25/00	11.92	12.24	11.77				16.30	18.69	14.39
07/26/00	11.97	12.24	11.77				16.14	18.37	14.55
07/27/00	12.04	12.39	11.77				15.76	18.53	13.47
07/28/00	12.06	12.39	11.93				15.64	18.37	12.86
07/29/00	12.11	12.39	11.93				16.30	19.17	13.62
07/30/00	12.16	12.39	11.93				17.79	19.98	15.82
07/31/00	12.19	12.39	12.08				18.69	20.96	16.93

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/00	12.24	12.55	12.08				19.80	21.12	18.69
08/02/00	12.27	12.55	12.08				19.60	21.12	17.72
08/03/00	12.31	12.55	12.08				19.20	20.79	17.72
08/04/00	12.36	12.71	12.24				18.98	20.79	17.56
08/05/00	12.38	12.71	12.24				18.19	20.47	16.29
08/06/00	12.42	12.71	12.24				17.68	19.33	16.45
08/07/00	12.48	12.71	12.24				17.06	19.01	15.66
08/08/00	12.45	12.73	12.27				16.35	18.37	14.87
08/09/00	12.45	12.73	12.27				15.80	17.88	13.93
08/10/00	12.50	12.73	12.27				15.10	17.24	13.16
08/11/00	12.53	12.89	12.27	14.02	15.99	12.09	14.90	17.56	12.08
08/12/00	12.57	12.89	12.42	14.31	16.15	12.41	15.37	17.72	12.86
08/13/00	12.59	12.89	12.42	14.31	16.15	12.72	15.02	16.93	13.32
08/14/00	12.63	12.89	12.42	14.04	15.99	12.25	14.78	17.24	12.70
08/15/00	12.66	12.89	12.42	14.74	16.47	13.18	15.75	17.72	14.24
08/16/00	12.69	13.04	12.58	14.85	16.78	13.33	15.94	18.21	14.39
08/17/00	12.72	13.04	12.58	14.82	16.47	13.33	15.74	17.41	14.39
08/18/00	12.73	13.04	12.58	14.07	15.84	12.56	14.45	16.45	12.86
08/19/00	12.77	13.04	12.58	13.11	14.89	11.33	13.05	15.18	10.99
08/20/00	12.81	13.04	12.58	13.10	14.89	11.48	13.31	15.66	11.30
08/21/00	12.85	13.19	12.73	13.27	15.04	11.48	13.79	15.82	11.77
08/22/00	12.91	13.19	12.73	13.58	15.36	11.94	14.22	16.29	12.08
08/23/00	12.91	13.19	12.73	13.84	15.52	12.41	14.61	16.45	13.01
08/24/00	12.97	13.19	12.73	13.81	15.68	12.09	14.68	17.08	12.54
08/25/00	13.05	13.35	12.89	14.96	16.63	13.64	16.45	18.21	15.18
08/26/00	13.10	13.35	12.89	15.48	16.94	14.26	17.24	18.53	16.29
08/27/00	13.11	13.35	12.89	15.16	16.78	13.79	16.73	18.53	15.34
08/28/00	13.10	13.35	13.04	15.00	16.31	13.79	16.54	18.04	15.34
08/29/00	13.07	13.19	13.04	14.59	15.04	14.11	16.01	16.45	15.50
08/30/00	13.10	13.35	13.04	14.38	15.21	13.64	15.87	17.08	15.18
08/31/00	13.13	13.35	13.04	13.63	14.42	12.87	14.91	15.82	13.93

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

Date	Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/00	13.10	13.19	13.04	12.68	13.49	11.94	13.67	14.71	12.70
09/02/00	13.17	13.35	13.04	12.19	12.72	11.63	13.41	14.39	12.70
09/03/00	13.23	13.35	13.04	12.39	13.33	11.63	13.15	14.55	12.08
09/04/00	13.24	13.51	13.04	11.89	12.87	11.02	12.56	14.08	11.46
09/05/00	13.26	13.51	13.04	11.70	13.18	10.40	11.57	13.16	9.91
09/06/00	13.28	13.51	13.04	11.65	13.33	10.09	11.54	13.62	9.60
09/07/00	13.30	13.51	13.04	12.09	13.79	10.56	11.92	13.93	10.22
09/08/00	13.37	13.66	13.19	12.51	13.95	11.17	12.56	14.39	10.84
09/09/00	13.40	13.66	13.19	12.43	13.95	11.02	12.45	14.24	10.68
09/10/00	13.42	13.66	13.35	12.75	14.26	11.48	13.20	15.02	11.61
09/11/00	13.43	13.66	13.35	12.73	14.26	11.48	13.27	15.18	11.46
09/12/00	13.45	13.66	13.35	12.73	14.26	11.17	13.03	14.55	11.15
09/13/00	13.52	13.66	13.35	13.98	15.52	12.72	14.76	16.61	13.01
09/14/00	13.60	13.81	13.51	14.45	15.84	13.33	16.06	17.72	14.71
09/15/00	13.66	13.97	13.51	14.38	15.84	13.18	16.21	18.21	14.55
09/16/00	13.75	13.97	13.51	13.59	15.21	11.94	14.71	17.24	12.39
09/17/00	13.86	14.12	13.66	13.86	15.68	12.41	15.03	17.88	12.70
09/18/00	13.93	14.12	13.81	13.93	15.36	12.56	15.12	16.93	13.32
09/19/00	13.98	14.12	13.81	14.24	15.52	13.03	15.54	17.08	13.78
09/20/00	14.06	14.28	13.97	14.54	15.99	13.33	16.07	17.88	14.39
09/21/00	14.09	14.28	13.97	14.40	15.52	13.49	15.63	16.61	14.71
09/22/00	14.10	14.28	13.97	12.87	13.79	12.25	13.76	14.71	13.01
09/23/00	14.14	14.28	13.97	12.04	13.03	10.87	12.53	13.93	10.53
09/24/00	14.23	14.43	13.97	12.36	13.64	11.02	12.63	14.55	10.53
09/25/00	14.27	14.59	14.12	12.35	13.64	11.17	12.69	14.39	10.99
09/26/00	14.31	14.59	14.12	12.29	13.49	11.17	12.51	13.93	10.84
09/27/00	14.35	14.59	14.28	12.58	13.95	11.33	12.97	14.55	11.46
09/28/00	14.40	14.59	14.12	12.65	13.79	11.63	13.16	14.71	11.77
09/29/00	14.46	14.59	14.28	12.67	13.79	11.48	13.25	14.87	11.61
09/30/00	14.53	14.74	14.43	12.94	14.42	11.79	13.54	15.82	11.61

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2000

	Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/00	14.58	14.74	14.28	12.93	14.11	11.79	13.62	15.66	11.77
10/02/00	14.66	14.91	14.43	12.82	14.11	11.63	13.21	15.18	11.46
10/03/00	14.71	14.91	14.59	12.91	13.95	11.79	13.34	14.87	11.77
10/04/00	14.77	14.91	14.59	12.55	13.49	11.48	12.70	14.24	11.15
10/05/00	14.86	15.06	14.74	12.56	13.79	11.48	12.78	14.55	11.30
10/06/00	14.94	15.06	14.74	12.81	13.95	11.63	13.11	14.87	11.46
10/07/00	14.95	15.22	14.91	13.05	13.95	11.94	13.57	15.18	11.92
10/08/00	14.98	15.22	14.91	13.06	13.95	11.94	13.73	15.18	11.92
10/09/00	14.97	15.22	14.91	12.69	13.64	11.63	13.09	14.55	11.61
10/10/00	14.89	15.06	14.28	10.08	12.72	9.31	9.63	12.70	8.83
10/11/00	14.93	15.06	14.91	9.33	9.77	8.69	8.06	8.98	6.83
10/12/00	14.99	15.06	14.91	9.88	10.40	9.31	8.72	9.60	7.75
10/13/00	15.09	15.22	14.91	9.90	10.87	8.85	8.83	10.68	7.44
10/14/00	15.23	15.38	15.06	10.56	11.63	9.62	9.91	11.77	8.37
10/15/00	15.38	15.54	15.22	10.74	11.79	9.77	10.28	11.92	8.83
10/16/00	15.45	15.69	15.38	11.29	12.25	10.40	11.17	12.70	9.76
10/17/00	15.42	15.54	15.22	11.38	12.09	10.56	11.22	12.23	9.91
10/18/00	15.41	15.54	15.22	11.65	12.72	10.56	11.57	13.32	10.07
10/19/00	15.30	15.54	15.22	11.50	12.25	10.56	11.53	13.16	10.07
10/20/00	15.23	15.38	15.06	11.55	12.41	10.40	11.68	13.32	10.07
10/21/00	15.10	15.22	15.06	11.29	12.09	10.09	10.67	12.23	8.37
10/22/00	15.10	15.38	14.91	9.47	10.24	8.54	7.88	9.76	6.05
10/23/00	15.23	15.38	15.06	9.73	10.56	9.00	8.44	9.91	7.13
10/24/00	15.30	15.54	15.22	10.09	10.87	9.31	9.28	10.22	8.37
10/25/00	15.17	15.38	15.06	10.38	11.02	9.62	9.58	10.53	8.52
10/26/00	15.17	15.38	15.06	9.98	10.71	9.46	8.98	10.38	7.91
10/27/00				9.37	10.09	8.69	8.43	10.07	7.13
10/28/00				9.73	10.40	8.85	9.43	10.53	8.21
10/29/00									
10/30/00									
10/31/00									

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake			NF Stevenson downstream of Tunnel 7		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	3.8	5.3	3.1	2.9	5.3	1.9	9.2	14.0	6.1				2.0	3.2	1.6
05/02/01	3.7	4.8	3.1	3.1	5.3	2.0	8.5	13.5	5.6				2.0	2.7	1.6
05/03/01	3.8	4.8	3.1	3.5	5.5	2.3	11.5	13.5	8.3				2.0	3.1	1.3
05/04/01	4.3	5.6	3.4	3.5	5.9	0.8	9.3	13.8	5.8				2.1	3.2	1.5
05/05/01	4.3	5.8	3.4	3.5	6.1	1.7	10.0	14.3	6.1				2.3	3.5	1.6
05/06/01	4.3	5.8	3.3	3.8	6.3	2.7	10.2	15.3	6.3				2.5	3.7	2.0
05/07/01	4.3	5.6	3.4	3.8	6.4	2.7	10.5	16.0	5.9				2.7	3.8	2.0
05/08/01	5.3	7.3	3.4	5.0	7.8	2.7	13.0	15.9	9.0				3.3	4.8	2.1
05/09/01	5.9	7.5	3.9	4.9	8.0	2.7	12.1	16.2	8.1				3.7	5.4	2.4
05/10/01	5.8	8.9	4.2	4.9	8.1	2.8	11.8	17.2	8.3				3.8	5.6	2.4
05/11/01	5.6	7.2	4.7	5.1	7.6	3.9	11.7	17.2	8.7				4.2	5.9	2.9
05/12/01	5.9	7.5	4.8	5.6	8.7	4.1	12.0	15.6	7.7				4.0	5.1	3.2
05/13/01	6.2	7.0	5.5	5.7	7.8	4.7	12.5	16.7	8.9				4.7	6.3	3.4
05/14/01	6.7	8.6	5.3	6.5	9.0	4.7	12.7	16.5	7.7				5.1	7.4	3.2
05/15/01	6.9	8.3	5.8	6.6	8.7	5.3	12.1	16.5	8.6				5.6	7.4	3.8
05/16/01	6.8	8.6	5.9	6.3	8.6	5.2	12.1	17.2	8.7				5.8	7.3	4.3
05/17/01	7.2	8.6	5.9	6.4	9.3	4.2	12.1	17.8	8.4				6.0	8.3	4.0
05/18/01	7.9	10.7	7.0	6.2	9.0	4.4	11.7	17.5	8.0				5.9	7.7	4.0
05/19/01	8.0	8.9	6.9	7.2	9.5	4.5	12.8	17.8	8.7	6.8	7.7	6.0	6.5	9.0	4.0
05/20/01	8.0	9.2	7.0	7.6	10.0	6.1	12.8	17.6	9.2	6.9	8.2	6.2	7.0	9.3	5.1
05/21/01	8.4	9.2	7.5	7.9	9.5	5.9	12.4	18.3	9.5	6.8	8.0	6.2	7.6	9.7	5.7
05/22/01	8.7	10.7	7.9	8.1	9.5	6.3	12.8	17.2	9.7	7.0	8.5	6.2	7.9	9.6	6.2
05/23/01	8.8	10.3	7.8	8.2	9.8	7.0	13.0	18.0	9.8	7.1	8.4	6.2	8.3	10.2	6.6
05/24/01	9.1	10.0	7.9	8.8	10.1	7.6	13.6	18.4	9.5	7.3	8.7	6.4	8.6	10.7	7.0
05/25/01	9.0	9.8	8.3	10.1	27.5	7.6	13.0	17.2	9.4	7.6	9.1	6.7	8.5	10.2	7.1
05/26/01	9.5	10.0	8.4	9.0	10.3	6.1	13.2	17.0	9.7	7.8	9.4	6.5	8.6	10.4	7.1
05/27/01	9.3	10.7	6.2	11.4	28.2	5.9	13.3	16.8	10.0	8.1	9.9	6.5	8.7	10.8	6.8
05/28/01	9.5	10.6	6.1	9.4	14.0	6.6	13.5	17.3	10.4	8.3	9.9	6.7	8.9	10.8	7.6
05/29/01	9.9	11.8	7.3	9.6	10.9	6.6	12.9	16.2	10.3	8.6	9.7	7.1	9.4	11.3	7.9
05/30/01	10.1	10.9	9.0	10.0	12.1	7.2	12.8	15.4	10.8	8.7	9.7	7.4	9.6	11.3	8.2
05/31/01	10.3	11.3	9.3	10.4	16.0	8.9	12.9	16.2	10.8	9.1	10.1	8.4	9.9	11.6	8.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake			NF Stevenson downstream of Tunnel 7		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	10.6	14.8	9.6	13.6	33.5	9.0	12.9	16.4	11.1	9.2	10.4	7.7	10.1	11.7	9.0
06/02/01	9.3	11.0	4.2	11.3	27.9	6.7	13.0	16.2	11.2	9.4	10.7	7.9	8.9	10.7	7.3
06/03/01	9.9	12.3	4.8	11.2	27.3	5.5	13.0	16.8	11.2	9.6	10.7	8.2	9.2	11.4	6.8
06/04/01	10.0	12.0	6.7	12.6	30.6	6.3	13.2	16.8	11.5	9.7	10.5	8.7	9.3	11.1	7.9
06/05/01	10.7	12.1	9.8	11.3	24.5	8.1	13.2	16.7	11.4	9.9	10.8	9.1	9.7	11.4	8.2
06/06/01	10.9	11.8	10.1	12.1	27.2	9.6	13.6	17.3	11.8	10.0	10.7	9.0	10.1	11.7	8.8
06/07/01	11.0	13.7	8.1	12.5	30.4	10.0	13.5	16.8	11.7	10.2	10.8	9.6	10.4	12.4	9.1
06/08/01	12.0	13.5	10.7	12.8	33.5	9.3	14.1	16.7	12.1	10.2	10.8	9.6	10.2	12.1	8.0
06/09/01	12.1	15.2	6.6	10.1	11.8	8.0	14.4	17.3	12.0	10.4	11.3	9.1	10.1	11.6	8.8
06/10/01	12.0	13.7	8.1	14.7	35.2	7.3	14.0	17.5	12.3	10.4	11.3	9.3	10.7	12.7	9.0
06/11/01	12.7	14.3	10.9	13.3	26.6	8.6	14.5	17.0	12.3	10.5	11.4	9.6	10.3	11.9	9.0
06/12/01	12.4	14.3	10.0	12.4	25.1	7.2	14.8	17.8	12.8	10.5	11.1	9.4	10.2	11.3	9.4
06/13/01	11.6	13.7	7.0	14.5	33.0	6.9	15.0	17.5	12.6	10.6	11.6	9.3	10.6	12.2	9.3
06/14/01	13.7	15.4	6.9	14.5	34.5	8.4	15.5	19.1	13.1	10.6	11.6	10.1	10.4	12.4	8.5
06/15/01	13.8	17.1	9.3	14.2	35.0	9.3	15.3	17.8	13.5	10.7	11.6	9.7	10.5	12.2	9.0
06/16/01	13.6	19.1	8.4	13.7	33.5	9.8	15.5	18.4	13.5	10.7	11.3	9.9	10.8	12.5	9.6
06/17/01	14.5	16.8	10.3	13.5	31.2	10.4	15.3	18.0	13.7	10.9	11.6	9.9	10.8	12.2	9.7
06/18/01	14.0	17.5	9.2	14.5	36.0	9.3	15.7	18.8	13.7	10.9	11.9	9.7	10.6	12.2	9.3
06/19/01	13.8	18.9	8.1	14.0	35.4	9.6	16.1	19.1	14.0	10.8	11.8	9.9	10.8	12.4	9.6
06/20/01	14.2	19.7	9.8	13.4	31.0	10.6	16.2	18.9	14.0	11.0	11.8	10.2	11.1	12.4	10.0
06/21/01	15.8	20.2	14.0	14.4	33.9	10.4	16.4	19.3	14.3	11.1	12.1	9.9	11.1	12.4	10.0
06/22/01	15.5	18.7	12.0	16.7	32.4	10.6	17.1	20.4	14.3	11.0	12.2	10.2	11.2	12.7	10.2
06/23/01	15.3	19.1	10.7	17.3	35.0	11.2	17.3	20.4	14.6	11.1	12.2	10.1	11.1	12.5	10.0
06/24/01	14.4	18.3	7.8	14.2	31.2	9.3	17.8	20.6	14.6	11.2	12.4	10.2	11.3	12.5	9.9
06/25/01	14.8	19.1	7.3	13.3	29.0	8.3	17.9	21.0	14.9	11.3	12.5	10.1	11.0	12.5	9.6
06/26/01	14.7	18.3	8.4	13.9	27.5	9.0	18.2	20.9	15.1	11.4	12.5	10.5	11.2	12.4	10.0
06/27/01	14.8	18.3	9.2	14.3	29.0	9.6	18.1	21.0	15.9	11.4	12.5	10.2	11.2	12.5	10.2
06/28/01	15.5	19.5	8.7	15.5	35.2	8.9	18.0	20.7	16.2	11.5	12.5	10.2	11.2	12.2	10.2
06/29/01	16.3	21.0	10.1	15.7	32.6	10.3	18.1	20.7	15.9	11.5	12.7	10.5	11.3	12.4	10.2
06/30/01	16.4	19.9	11.5	16.4	34.5	11.2	18.3	20.9	16.0	11.6	12.2	10.8	11.4	12.5	10.4

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake			NF Stevenson downstream of Tunnel 7		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	17.2	21.2	12.3	19.0	37.5	11.2	18.5	20.6	16.7	11.6	12.5	10.7	11.4	12.4	10.5
07/02/01	17.8	23.0	12.6	16.6	32.4	11.2	18.5	20.9	16.2	11.7	12.8	11.0	11.6	12.5	10.7
07/03/01	18.3	21.0	14.6	16.5	29.0	11.7	18.8	21.2	16.5	11.5	12.7	10.8	11.8	12.5	11.0
07/04/01	18.2	20.4	13.8	18.1	26.1	11.8	19.1	21.9	16.5	11.5	11.9	11.0	11.9	12.4	11.6
07/05/01	17.5	20.4	13.5	16.0	28.2	11.8	19.0	23.0	16.5	11.8	12.4	11.1	12.0	12.8	11.1
07/06/01	16.8	19.2	13.7	13.7	18.7	12.0	18.7	21.4	16.8	11.9	12.8	11.1	11.9	12.4	11.1
07/07/01	17.4	19.1	13.8	15.3	22.3	12.4	19.3	22.0	16.8	12.0	12.5	11.4	12.1	13.0	11.4
07/08/01	17.6	19.4	12.9	17.2	23.5	12.1	19.4	21.9	17.2	12.0	12.8	11.1	11.9	12.7	11.3
07/09/01	17.7	20.8	12.7	16.6	27.3	11.5	19.5	21.9	17.3	12.1	13.3	11.4	12.0	12.5	11.3
07/10/01	17.7	22.0	12.7	16.8	31.4	11.5	19.6	21.7	17.3	12.2	12.7	11.6	12.2	12.7	11.7
07/11/01	16.0	20.7	10.6	14.2	29.5	9.6	19.2	22.4	17.2	12.3	13.3	11.3	12.6	13.6	11.1
07/12/01	17.0	21.0	10.1	16.5	31.4	9.3	19.6	22.2	17.2	12.5	13.1	11.8	12.0	12.8	11.0
07/13/01	17.2	21.2	10.7	15.6	30.8	9.8	19.6	21.9	17.3	12.6	13.3	11.9	12.2	13.0	11.3
07/14/01	17.1	20.8	10.3	17.5	29.3	10.4	19.9	22.5	17.8	12.6	13.3	11.8	11.9	13.1	11.0
07/15/01	17.3	20.7	10.0	17.6	30.8	10.1	20.0	22.4	18.0	12.5	13.3	11.6	11.9	13.0	11.0
07/16/01	17.0	20.7	10.3	17.7	28.2	9.8	20.0	22.0	18.4	12.6	13.5	11.6	11.9	13.0	11.0
07/17/01	16.9	21.0	10.0	15.4	27.7	9.3	20.1	21.9	18.3	12.6	13.3	11.6	12.1	13.1	11.0
07/18/01	17.0	21.2	10.1	15.5	29.9	9.2	19.9	21.9	18.4	12.8	13.5	11.9	12.2	13.1	11.3
07/19/01	16.8	20.5	10.3	15.5	28.6	9.5	20.1	21.9	18.4	12.8	13.3	12.1	12.3	13.3	11.1
07/20/01	16.9	21.3	10.6	15.7	31.8	9.6	20.3	22.2	18.4	12.9	13.5	12.1	12.4	13.3	11.3
07/21/01	17.0	21.3	10.3	17.5	30.6	9.5	20.2	22.0	18.6	12.9	13.8	12.1	12.3	13.3	11.3
07/22/01	17.4	21.5	10.0	17.4	25.8	10.3	20.2	22.0	18.8	13.0	13.6	12.2	12.2	13.3	11.3
07/23/01	17.8	21.5	10.3	16.0	29.0	10.6	20.3	21.9	18.8	12.9	13.6	12.4	12.5	13.5	11.3
07/24/01	17.9	21.0	12.9	18.5	29.7	11.8	20.2	21.9	18.9	13.1	13.8	12.5	12.8	13.5	12.1
07/25/01	18.3	22.0	12.4	16.7	27.9	12.6	20.4	22.4	18.9	13.2	13.8	12.7	12.8	13.8	11.6
07/26/01	18.5	22.3	13.1	17.5	30.8	12.7	20.5	21.9	19.1	13.3	13.9	12.7	12.9	13.8	11.7
07/27/01	18.2	21.5	11.7	17.7	30.6	12.6	20.7	22.9	19.3	13.3	13.9	12.8	12.9	13.9	11.9
07/28/01	19.9	21.7	12.1	19.2	30.6	12.9	20.8	22.9	19.4	13.4	13.9	12.7	12.7	13.8	11.9
07/29/01	20.3	21.3	15.6	18.8	25.6	12.7	21.0	22.9	19.4	13.5	13.9	12.8	12.7	13.8	11.7
07/30/01	18.7	21.8	11.0	17.0	25.1	11.4	21.2	22.7	19.7	13.5	14.4	12.4	12.9	13.8	11.7
07/31/01	18.2	22.5	10.6	15.9	30.6	10.6	21.1	22.7	19.6	13.5	13.9	13.0	13.2	14.2	11.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake			NF Stevenson downstream of Tunnel 7		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	18.1	21.2	11.7	17.3	33.5	11.5	20.9	22.7	18.9	13.7	14.2	13.0	13.2	14.1	12.2
08/02/01	18.9	21.7	12.4	16.7	29.9	12.6	21.0	22.9	18.9	13.8	14.2	13.3	13.4	14.4	12.2
08/03/01	18.2	21.7	11.8	18.3	34.1	11.8	21.3	22.9	19.9	13.9	14.2	13.5	13.4	14.2	12.4
08/04/01	19.3	21.7	11.5	18.5	21.7	11.2	21.2	23.0	19.7	14.1	14.7	13.1	13.3	14.4	12.4
08/05/01	18.8	22.3	10.9	18.0	23.3	10.6	21.2	23.2	20.1	14.0	14.5	13.6	13.2	14.2	12.2
08/06/01	19.7	22.8	13.1	18.7	26.3	12.6	21.5	23.2	19.7	14.1	14.5	13.5	13.6	14.7	12.4
08/07/01	19.2	21.7	14.1	18.4	26.5	13.2	21.5	23.4	19.7	14.1	14.5	13.8	13.9	14.5	13.1
08/08/01	19.2	21.8	14.6	18.6	27.0	13.4	21.6	23.4	19.7	14.3	14.9	13.9	13.9	14.7	13.0
08/09/01	19.1	22.7	14.3	17.7	29.5	13.7	21.8	23.4	19.7	14.4	15.0	13.9	14.1	15.0	13.1
08/10/01	19.2	22.8	13.7	18.0	29.0	13.7	22.0	23.4	20.2	14.3	14.9	13.8	14.0	14.7	13.3
08/11/01	20.1	23.0	14.0	19.0	23.7	13.4	21.9	23.6	20.4	14.4	15.0	13.9	13.8	14.7	12.8
08/12/01	16.7	22.0	12.9	15.1	26.8	12.4	21.3	23.7	20.4	14.5	15.0	13.9	14.4	15.8	12.8
08/13/01	18.2	21.2	12.3	17.4	29.2	12.6	21.9	23.2	19.9	14.4	15.0	13.9	14.0	14.9	13.1
08/14/01	18.4	21.5	12.6	18.2	35.6	12.9	21.8	23.0	19.4	14.6	15.2	14.1	14.1	14.9	13.1
08/15/01	18.6	21.5	13.1	19.5	33.1	13.4	22.0	23.0	20.7	14.6	15.2	14.1	14.1	14.9	13.3
08/16/01	18.5	21.5	13.2	19.9	35.0	13.8	21.8	23.0	20.1	14.6	14.9	14.2	14.2	14.7	13.3
08/17/01	19.5	21.5	13.4	18.0	28.8	13.8	21.7	22.9	19.4	14.9	15.3	14.4	14.4	15.2	13.8
08/18/01	20.1	20.8	13.1	19.8	21.2	13.5	21.7	22.7	21.0	14.8	15.3	14.4	14.2	15.0	13.5
08/19/01	20.5	20.7	20.2	20.8	21.2	20.5	21.3	22.0	20.7	14.8	15.2	14.4	14.3	15.2	13.5
08/20/01	19.1	21.7	11.5	19.1	23.5	11.5	21.4	23.2	20.6	14.8	15.5	14.2	13.4	13.8	13.0
08/21/01	17.9	21.7	10.3	16.3	24.5	10.7	22.1	22.7	19.7	15.0	15.6	14.4	14.7	15.8	13.1
08/22/01	18.3	21.5	9.6	15.2	20.2	9.2	21.8	22.4	20.6	14.9	15.3	14.4	14.5	15.5	13.5
08/23/01	19.0	21.3	9.2	15.0	20.0	8.7	21.5	22.0	18.8	15.0	15.5	14.4	15.0	16.3	13.9
08/24/01	18.0	21.3	12.0	18.1	32.0	9.6	21.4	21.9	19.1	15.0	15.5	14.5	14.9	15.8	13.8
08/25/01	18.4	21.2	11.2	16.4	24.9	12.1	21.4	22.2	19.4	15.1	15.5	14.7	14.9	16.0	13.6
08/26/01	18.8	21.7	12.4	16.7	21.2	12.7	21.5	22.7	20.7	15.1	15.5	14.7	15.0	16.0	13.9
08/27/01	18.8	22.7	12.9	16.8	25.6	12.6	21.6	22.4	20.9	15.2	15.6	14.9	15.1	16.1	14.1
08/28/01	18.5	21.7	12.9	19.3	34.3	13.1	21.7	22.9	20.9	15.3	15.8	15.0	15.4	16.8	13.9
08/29/01	18.0	21.2	12.3	18.3	33.0	13.4	21.9	22.7	21.0	15.5	16.0	15.0	15.6	17.1	14.2
08/30/01	17.4	21.0	11.2	17.8	29.2	12.1	21.6	22.4	20.6	15.6	16.1	15.0	15.6	16.9	14.2
08/31/01	17.4	20.7	10.9	18.2	33.1	11.8	21.5	22.2	19.6	15.6	16.3	15.0	15.6	17.1	14.2

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake			NF Stevenson downstream of Tunnel 7		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	17.9	21.7	11.0	17.7	24.4	12.4	21.5	22.2	20.2	15.7	16.1	15.2	15.1	16.0	14.2
09/02/01	18.9	21.5	11.0	18.2	21.7	12.4	21.5	22.2	20.4	15.7	16.1	15.2	15.2	16.3	14.2
09/03/01	18.4	22.0	12.9	17.1	21.2	12.6	21.6	22.0	20.7	15.9	16.4	15.3	15.6	16.8	14.2
09/04/01	18.0	21.2	12.4	18.2	31.6	12.4	21.6	22.2	21.2	15.8	16.4	15.3	15.7	16.8	14.5
09/05/01	17.5	21.0	10.7	17.7	31.6	11.8	21.6	22.2	19.4	16.1	16.9	15.3	16.0	17.1	14.9
09/06/01	17.5	21.5	10.4	17.3	29.2	11.2	21.5	21.9	20.7	16.2	16.9	15.3	16.0	17.2	14.5
09/07/01	17.3	21.3	10.6	18.1	29.3	11.2	21.3	21.9	20.7	16.5	17.4	15.5	16.1	17.2	14.9
09/08/01	17.6	20.7	10.4	16.9	27.7	11.5	21.0	21.7	19.7	16.6	17.4	15.8	16.2	17.4	15.0
09/09/01	18.9	20.5	11.2	16.7	19.9	11.4	20.9	21.4	19.6	16.8	17.5	15.5	16.1	17.1	14.9
09/10/01	17.9	20.4	12.1	17.6	26.6	11.0	20.6	20.9	20.2	17.0	17.4	16.3	16.2	17.1	15.0
09/11/01	14.3	19.1	10.4	16.5	27.5	12.0	20.4	20.7	18.8	17.1	17.4	16.3	16.5	17.4	15.5
09/12/01	12.4	17.8	8.7	14.8	29.9	9.6	20.4	20.7	19.3	17.1	17.4	16.6	16.4	17.2	15.5
09/13/01	15.4	17.9	8.4	14.3	32.0	8.9	20.2	20.9	19.3	17.1	17.2	16.9	16.5	17.2	15.8
09/14/01	13.9	17.5	7.5	14.7	30.8	9.6	20.3	20.7	18.4	17.1	17.2	16.9	16.7	17.1	16.1
09/15/01	16.7	17.8	10.1	17.0	28.2	12.0	19.9	20.4	17.8	17.0	17.1	16.9	16.9	17.1	16.6
09/16/01	17.2	17.5	17.1	17.1	17.9	11.8	20.1	20.4	19.9	17.0	17.1	16.9	16.8	17.1	16.4
09/17/01	17.4	18.3	17.1	17.1	17.5	16.8	18.4	20.6	17.6	16.9	17.1	16.8	16.7	17.1	16.4
09/18/01	16.3	17.6	11.8	17.5	29.3	12.4	18.9	20.9	17.5	16.8	16.9	16.8	16.8	17.1	16.6
09/19/01	17.0	18.3	11.5	14.7	17.1	10.9	20.0	20.6	18.6	16.8	16.9	16.8	16.7	17.1	16.4
09/20/01	16.9	17.5	11.0	14.8	17.3	10.6	19.9	20.4	18.0	16.8	16.9	16.6	16.7	16.9	16.6
09/21/01	17.2	17.3	17.1	17.1	17.3	16.8	19.9	20.2	18.8	16.8	16.9	16.8	15.9	16.8	14.9
09/22/01	17.3	17.5	17.1	17.2	17.5	17.1	20.0	20.2	19.7	16.8	16.9	16.6	15.3	15.6	14.5
09/23/01	17.3	17.5	17.3	17.3	17.5	17.1	19.8	20.4	18.3	16.8	17.1	16.8	15.5	15.8	13.8
09/24/01	16.6	17.8	11.3	16.3	17.5	12.4	19.4	19.7	17.6	16.7	16.8	16.6	16.1	16.3	15.6
09/25/01	14.6	17.1	11.3	14.5	26.6	10.7	19.6	19.7	18.4	16.6	16.8	16.6	16.4	16.8	16.3
09/26/01	15.9	17.3	10.4	16.5	28.2	10.7	19.5	20.2	17.8	16.6	16.8	16.6	16.4	16.8	16.3
09/27/01	15.6	17.0	8.9	15.7	25.9	11.4	19.4	19.7	18.0	16.6	16.6	16.4	16.4	16.6	16.1
09/28/01	16.7	17.0	16.7	16.1	17.3	10.4	19.3	19.6	19.1	16.4	16.6	16.4			
09/29/01	16.4	17.5	10.4	15.9	17.1	11.5	19.2	19.6	17.8	16.4	16.4	16.3			
09/30/01	17.8	18.7	11.7	16.3	19.2	11.2	19.2	19.7	18.8	16.3	16.4	16.3			

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

Date	Balsam Meadow Forebay Intake			Balsam Meadow Diversion Conduit			Eastwood Powerhouse Tailrace			Tunnel 7 Intake			NF Stevenson downstream of Tunnel 7		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	16.7	18.4	11.8	16.7	26.3	13.7	19.0	19.6	18.0	16.3	16.3	16.3			
10/02/01	16.7	17.8	11.3	16.1	32.8	12.9	19.3	19.7	18.3	16.3	16.3	16.3			
10/03/01	17.8	19.1	16.8	16.9	26.1	12.7	19.3	19.7	18.1	16.2	16.3	16.1			
10/04/01	17.5	18.4	17.0	16.3	16.3	16.2	19.3	19.6	18.1	16.1	16.1	16.1			
10/05/01	17.2	18.4	17.0	16.1	28.2	9.2	19.3	19.7	18.0	16.1	16.1	16.1			
10/06/01	16.6	17.0	16.3	12.6	16.2	7.8	19.0	19.6	17.2	16.0	16.1	16.0			
10/07/01	16.3	16.8	16.2	15.9	16.2	8.9	18.8	19.3	16.8	15.9	16.0	15.8			
10/08/01	16.2	16.7	16.0	15.0	15.9	8.6	18.6	19.1	16.7	15.8	16.0	15.8			
10/09/01	16.0	16.2	15.9	14.2	15.9	7.2	18.4	18.8	16.5	15.7	15.8	15.6			
10/10/01	15.8	15.9	15.7	15.6	15.9	15.2	18.4	18.8	16.4	15.5	15.6	15.5			
10/11/01	15.7	16.0	15.6	14.5	15.4	8.0	18.1	18.4	16.2	15.4	15.6	15.3			
10/12/01	15.5	16.0	15.2	13.7	26.8	7.3	18.0	18.6	16.4	15.3	15.3	15.2			
10/13/01	15.4	16.3	15.2	15.3	15.4	15.2	17.9	18.4	16.2	15.2	15.3	15.0			
10/14/01							17.9	18.4	16.2	15.0	15.2	15.0			
10/15/01							17.7	18.3	15.9						
10/16/01							17.6	18.0	15.9						
10/17/01							17.5	18.0	15.9						
10/18/01							17.3	17.8	15.4						
10/19/01							17.3	17.8	15.7						
10/20/01							17.2	17.5	15.6						
10/21/01							17.2	17.3	17.0						
10/22/01							16.4	17.2	14.8						
10/23/01							16.8	17.2	15.1						
10/24/01							16.7	17.2	15.3						
10/25/01							16.6	17.0	15.1						
10/26/01							16.4	16.8	14.8						
10/27/01															
10/28/01															
10/29/01															
10/30/01															
10/31/01															

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake			Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
05/01/01	6.5	10.9	3.6				6.0	6.6	5.8	10.4	12.7	8.2	13.8	16.4	10.9
05/02/01	5.8	9.6	3.9				6.0	6.6	5.8	9.8	11.3	8.3	11.8	14.5	8.4
05/03/01	5.1	9.0	2.1				6.0	6.6	5.6	7.7	9.7	5.4	8.1	10.6	5.6
05/04/01	5.5	9.6	2.6				6.3	6.9	5.9	8.2	10.7	6.2	9.3	11.9	6.9
05/05/01	6.4	10.7	3.4				6.3	7.0	5.9	9.4	11.7	7.4	11.3	13.7	9.2
05/06/01	6.9	11.3	4.0				6.4	7.2	6.1	10.5	13.0	8.5	13.3	15.9	11.1
05/07/01	7.1	11.6	4.3				6.5	7.2	6.1	11.4	13.9	9.3	14.6	17.5	12.0
05/08/01	6.9	10.9	4.3				6.5	7.3	6.3	11.6	13.9	9.6	14.5	17.2	11.9
05/09/01	7.2	10.9	4.7				6.5	7.2	6.3	11.7	13.9	9.7	14.2	16.4	11.9
05/10/01	7.5	11.6	4.7				6.6	7.3	6.3	11.7	13.9	9.7	14.3	16.7	12.0
05/11/01	7.8	11.9	5.1				6.6	7.3	6.3	12.0	14.2	10.2	14.6	16.9	12.8
05/12/01	6.9	8.4	5.7				6.5	6.9	6.3	11.2	11.7	10.5	14.1	15.3	12.8
05/13/01	7.9	11.9	5.1				6.6	7.2	6.3	11.0	12.8	9.4	13.9	16.1	12.0
05/14/01	8.1	11.9	5.1				6.6	7.3	6.3	11.3	13.6	9.4	13.6	16.1	11.4
05/15/01	8.7	11.8	6.2				6.7	7.2	6.4	11.5	13.1	10.0	14.2	16.1	12.5
05/16/01	9.7	13.3	7.1				6.7	7.5	6.4	12.4	14.5	10.7	15.8	18.0	13.9
05/17/01	9.7	13.3	6.8	10.0	12.6	7.6	6.8	7.5	6.4	12.6	14.7	10.8	15.6	17.7	14.0
05/18/01	9.3	12.6	6.7	9.8	12.3	7.6	6.8	7.5	6.4	12.2	14.1	10.5	14.8	16.7	12.9
05/19/01	9.7	13.3	6.8	10.0	12.6	7.6	6.8	7.5	6.6	12.3	14.5	10.2	15.0	17.5	12.5
05/20/01	10.3	14.0	7.1	10.4	12.9	7.9	6.9	7.7	6.6	12.7	14.8	10.5	15.4	18.1	12.5
05/21/01	11.1	14.9	8.1	11.1	13.5	8.7	6.9	7.5	6.6	13.2	15.5	11.1	16.2	18.6	13.7
05/22/01	11.9	15.7	9.0	11.7	14.1	9.5	7.0	7.7	6.6	13.8	15.9	11.9	16.8	19.1	14.6
05/23/01	12.2	16.2	9.0	11.9	14.3	9.6	7.0	7.7	6.6	13.9	16.1	12.0	17.0	19.5	14.6
05/24/01	12.1	15.8	9.0	12.0	14.3	9.9	7.0	7.7	6.7	13.9	15.9	12.0	16.7	19.0	14.8
05/25/01	12.1	16.0	9.1	11.8	14.1	9.8	7.0	7.7	6.7	13.3	15.5	11.6	15.7	18.0	14.0
05/26/01	11.2	15.0	8.1	11.1	13.4	9.0	6.9	7.7	6.7	12.4	14.4	10.5	14.1	16.4	12.3
05/27/01	11.2	14.9	8.2				6.9	7.5	6.7	12.2	14.4	10.3	14.0	16.7	12.0
05/28/01	11.2	14.9	8.2				7.0	7.5	6.7	11.9	13.9	10.2	13.3	15.3	11.7
05/29/01	12.0	16.2	8.5				7.0	7.5	6.7	12.1	14.4	10.2	14.4	17.2	12.3
05/30/01	13.0	17.3	9.5				7.2	7.7	6.9	13.1	15.6	11.0	16.2	19.1	13.4
05/31/01	13.8	17.9	10.2				7.2	7.8	6.9	14.0	16.4	12.0	17.0	19.8	14.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake			Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
06/01/01	13.7	17.1	10.7				7.2	7.8	7.0	14.2	16.3	12.4	16.8	19.3	14.8
06/02/01	12.9	16.8	10.2				7.3	7.8	7.0	12.8	14.4	11.3	14.0	15.8	11.7
06/03/01	11.4	14.9	8.1				7.4	8.0	7.0	11.2	13.3	9.3	12.0	14.5	10.0
06/04/01	11.7	15.4	8.4				7.5	8.1	7.2	11.4	13.6	9.4	12.6	15.0	10.9
06/05/01	11.9	15.5	8.4				7.5	8.1	7.2	11.6	13.7	9.7	13.0	15.1	11.4
06/06/01	12.9	17.1	9.3				7.6	8.1	7.3	12.4	14.8	10.3	14.4	17.2	12.2
06/07/01	13.6	17.6	9.9				7.6	8.3	7.3	13.4	15.8	11.3	15.9	18.8	13.6
06/08/01	13.8	17.4	10.2				7.7	8.3	7.3	13.4	15.6	11.4	15.4	18.1	12.9
06/09/01	13.5	17.6	10.1				7.7	8.3	7.3	13.0	15.2	11.1	14.6	17.2	12.6
06/10/01	12.8	16.5	10.1				7.7	8.3	7.5	12.9	15.0	11.1	14.3	16.7	12.8
06/11/01	12.5	16.0	9.5				7.7	8.1	7.5	12.2	14.1	10.5	13.7	15.8	11.9
06/12/01	12.6	17.0	9.5				7.8	8.3	7.5	11.6	13.9	9.6	14.2	16.5	12.5
06/13/01	11.7	15.5	8.1				7.9	8.4	7.7	11.1	13.4	9.0	12.7	15.1	10.6
06/14/01	12.5	16.0	9.3				8.0	8.6	7.7	12.1	14.4	10.2	13.5	16.1	11.5
06/15/01	13.1	17.4	9.5				8.1	8.7	7.8	12.7	15.0	10.7	14.5	17.3	12.2
06/16/01	13.6	17.3	10.1				8.2	8.7	7.8	13.3	15.6	11.3	15.2	17.8	12.9
06/17/01	14.1	17.8	10.9				8.2	8.9	8.0	13.6	15.8	11.7	15.5	18.0	13.6
06/18/01	13.9	17.8	10.1				8.3	8.9	8.0	13.3	15.5	11.1	14.7	17.3	12.3
06/19/01	13.7	17.6	9.9				8.3	8.9	8.1	13.2	15.5	11.1	14.9	17.5	12.5
06/20/01	14.2	18.1	10.5				8.4	8.9	8.1	13.8	16.1	11.9	15.9	18.5	13.7
06/21/01	15.2	19.0	11.5				8.5	9.0	8.1	14.5	16.7	12.5	16.9	19.8	14.5
06/22/01	15.9	19.4	12.4				8.5	9.0	8.1	15.0	17.2	13.3	17.5	20.1	15.6
06/23/01	15.7	19.4	12.6				8.6	9.2	8.3	14.7	16.7	13.0	16.7	19.0	15.0
06/24/01	14.1	16.8	11.5				8.6	9.2	8.3	13.4	15.0	12.0	14.5	16.4	12.8
06/25/01	13.0	16.5	9.8				8.6	9.2	8.4	12.4	14.5	10.5	13.3	15.9	11.4
06/26/01	13.5	16.5	11.3				8.7	9.3	8.4	13.2	15.3	11.6	14.6	17.2	12.9
06/27/01	13.8	17.6	11.0				8.8	9.3	8.4	13.6	15.5	12.2	15.1	16.9	14.2
06/28/01	13.9	18.1	10.1				8.8	9.5	8.6	13.4	15.6	11.4	15.1	18.0	12.8
06/29/01	14.6	18.7	10.9				8.9	9.5	8.6	14.2	16.4	12.2	16.6	19.3	14.3
06/30/01	14.8	18.5	11.0				9.0	9.7	8.7	14.7	16.9	12.8	17.0	19.5	15.0

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake			Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
07/01/01	15.4	19.4	11.8				9.0	9.7	8.7	15.1	17.4	13.3	17.3	20.1	15.3
07/02/01	15.9	20.2	12.2				9.1	9.7	8.7	15.5	17.9	13.6	18.1	21.1	15.8
07/03/01	16.7	20.2	13.5				9.3	10.6	8.9	16.5	18.7	14.7	19.4	21.9	17.3
07/04/01	16.4	19.0	14.9				9.3	10.3	9.0	16.5	17.5	15.8	19.8	21.4	18.8
07/05/01	16.4	20.3	13.3				9.4	10.6	8.9	16.2	18.3	14.4	19.4	21.6	18.0
07/06/01	14.8	16.1	14.4				9.2	9.3	9.0	15.2	16.4	14.5	19.2	19.9	18.5
07/07/01	14.8	16.8	13.8				9.4	10.6	9.0	15.0	16.1	13.9	19.6	20.7	18.8
07/08/01	15.5	18.1	13.3				9.5	10.6	9.0	15.4	16.9	14.2	19.1	21.1	17.5
07/09/01	16.1	20.0	12.9				9.4	9.8	9.2	15.7	17.9	13.9	18.5	20.9	16.9
07/10/01	16.0	19.7	13.2				9.4	10.0	9.0	15.7	17.5	14.2	17.9	20.1	15.9
07/11/01	15.5	18.7	12.9	14.0	15.7	12.7	9.5	9.8	9.2	15.3	17.1	13.9	17.4	19.5	16.1
07/12/01	14.9	19.0	11.5	13.3	14.9	11.6	9.5	10.0	9.2	14.5	16.6	12.7	16.3	18.8	14.3
07/13/01	14.3	17.7	11.0	12.8	14.1	11.3	9.5	10.0	9.2	14.3	16.1	12.5	16.4	18.8	14.3
07/14/01	14.7	18.2	11.5	12.9	14.6	11.3	9.6	10.0	9.3	14.3	16.3	12.7	15.9	18.1	14.3
07/15/01	14.1	17.7	10.7	12.4	14.1	10.9	9.6	10.1	9.3	13.7	15.8	11.9	14.8	17.2	12.8
07/16/01	14.1	17.6	10.7	12.3	13.8	10.7	9.6	10.1	9.3	13.6	15.5	12.0	15.0	17.2	13.4
07/17/01	14.1	17.7	10.9	12.2	13.8	10.7	9.8	10.3	9.5	13.7	15.8	12.0	15.3	17.7	13.6
07/18/01	14.3	17.9	11.0	12.3	14.0	10.7	9.8	10.3	9.7	13.9	15.9	12.0	15.6	17.8	14.0
07/19/01	14.2	17.7	10.9	12.2	14.0	10.6	9.9	10.3	9.7	13.9	15.8	12.0	15.4	17.5	13.7
07/20/01	14.3	18.1	11.0	12.2	14.0	10.7	9.9	10.4	9.7	13.9	15.9	12.0	15.4	17.8	13.7
07/21/01	14.5	18.2	11.2	12.3	14.0	10.7	10.0	10.4	9.7	13.9	15.9	12.2	15.3	17.5	13.9
07/22/01	14.4	18.1	10.9	12.1	13.8	10.6	10.0	10.4	9.8	13.8	15.8	12.0	15.1	17.5	13.4
07/23/01	14.3	18.1	10.9	12.2	13.8	10.6	10.1	10.4	9.8	13.9	15.9	12.0	15.2	17.5	13.4
07/24/01	15.0	18.7	11.3	12.5	14.1	10.9	10.1	10.6	9.8	14.4	16.6	12.5	16.1	18.6	14.2
07/25/01	15.7	19.2	12.2	13.0	14.7	11.5	10.1	10.6	10.0	15.2	17.2	13.4	17.5	19.9	15.4
07/26/01	16.5	20.0	13.2	13.6	15.1	12.1	10.2	10.6	10.0	16.0	17.9	14.4	18.6	20.6	17.2
07/27/01	15.6	19.0	12.1	13.3	15.8	11.5	10.2	10.7	10.0	15.3	17.2	13.4	17.0	19.3	15.0
07/28/01	15.2	18.9	11.8	13.2	15.0	11.5	10.2	10.7	10.0	14.9	16.7	13.1	16.1	18.5	14.2
07/29/01	15.0	18.5	11.5	13.0	14.9	11.1	10.3	10.7	10.0	14.4	16.4	12.7	15.4	17.8	13.6
07/30/01	14.7	18.1	11.5	12.7	14.4	11.0	10.3	10.7	10.0	14.0	15.8	12.4	15.4	17.5	13.6
07/31/01	15.1	18.9	11.8	12.8	14.6	11.0	10.4	10.7	10.1	14.4	16.4	12.7	16.5	18.8	14.8

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake			Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
08/01/01	15.4	19.0	12.1	12.9	14.7	11.1	10.4	10.9	10.1	14.7	16.7	13.0	16.7	19.1	14.8
08/02/01	15.7	19.4	12.4	13.3	15.2	11.5	10.5	10.9	10.1	15.1	17.1	13.4	17.3	19.6	15.6
08/03/01	16.0	19.7	12.9	13.5	15.5	11.8	10.6	10.9	10.3	15.2	16.9	13.7	17.2	19.0	15.9
08/04/01	15.2	18.7	11.8	13.0	14.9	11.1	10.6	11.1	10.3	14.5	16.4	12.8	16.0	18.1	14.3
08/05/01	14.8	18.5	11.0	12.6	14.7	10.5	10.7	11.2	10.4	14.2	16.3	12.4	15.7	18.5	13.4
08/06/01	15.4	19.4	11.8	12.9	15.0	10.7	10.8	11.2	10.4	14.7	16.9	12.7	16.5	19.6	13.9
08/07/01	16.8	20.3	13.5	13.9	16.0	11.9	10.9	11.2	10.6	15.9	17.9	14.2	18.2	20.4	16.4
08/08/01	17.1	20.3	13.9	14.3	16.5	12.5	11.0	11.4	10.7	16.2	18.0	14.8	18.7	20.4	17.3
08/09/01	16.6	20.2	13.5	14.2	16.5	12.4	11.0	11.5	10.7	15.8	17.5	14.2	17.9	19.8	16.4
08/10/01	16.5	20.2	13.3	14.1	16.5	12.2	11.1	11.7	10.9	15.6	17.5	14.1	17.6	19.8	16.2
08/11/01	16.2	19.8	12.7	13.7	16.0	11.6	11.2	11.7	10.9	15.3	17.1	13.6	17.1	19.3	15.3
08/12/01	16.0	19.7	12.7	13.7	16.1	11.8	11.2	11.7	11.1	15.3	17.1	13.9	17.0	18.8	15.8
08/13/01	15.7	19.0	12.6	13.5	16.0	11.6	11.3	11.7	11.1	15.1	17.1	13.6	16.8	19.1	15.3
08/14/01	15.3	18.7	12.1	13.2	15.8	11.1	11.3	11.7	11.1	14.9	16.7	13.3	16.5	18.8	14.6
08/15/01	15.2	18.9	12.1	13.0	15.3	11.1	11.4	11.8	11.1	14.8	16.6	13.3	16.3	18.5	14.5
08/16/01	15.4	18.9	12.2	13.1	15.8	11.0	11.4	12.0	11.2	14.8	16.6	13.3	16.3	18.3	14.6
08/17/01	15.4	18.5	12.2	13.2	15.8	11.1	11.5	12.0	11.4	15.0	16.7	13.4	16.6	18.8	14.6
08/18/01	16.1	19.7	12.9	13.5	16.3	11.6	11.6	12.1	11.4	15.4	17.2	13.9	17.2	19.5	15.6
08/19/01	16.1	18.9	13.0	13.5	16.3	11.6	11.7	12.3	11.5	15.3	16.9	13.9	16.6	18.5	15.4
08/20/01	15.8	19.2	12.9	13.1	15.8	11.3	11.7	12.1	11.5	14.6	16.3	13.3	15.6	17.5	14.3
08/21/01	14.3	16.9	11.6	12.4	14.7	10.7	11.7	12.1	11.4	13.6	14.7	12.7	14.3	15.4	13.4
08/22/01	14.1	17.3	11.2	11.8	14.2	10.1	11.7	12.1	11.5	13.1	14.7	11.6	14.1	16.1	12.6
08/23/01	14.0	17.7	10.9	11.6	14.1	9.6	11.8	12.3	11.5	13.4	15.0	11.9	14.6	16.5	12.8
08/24/01	14.4	17.9	11.2	11.7	14.2	9.7	11.8	12.3	11.5	13.7	15.5	12.4	15.3	17.5	13.7
08/25/01	15.0	18.4	11.8	12.1	14.9	10.1	11.9	12.4	11.7	14.3	16.1	12.7	16.2	18.5	14.3
08/26/01	15.6	19.0	12.6	12.6	15.5	10.7	12.0	12.4	11.7	14.9	16.6	13.3	16.6	18.8	14.6
08/27/01	15.9	19.2	13.0	12.9	15.8	10.8	12.0	12.4	11.8	15.0	16.7	13.6	16.7	18.5	15.1
08/28/01	16.0	19.4	13.2	13.1	16.0	11.1	12.2	12.6	11.8	15.2	16.9	13.9	17.0	19.0	15.3
08/29/01	16.1	19.2	13.5	13.2	16.1	11.3	12.2	12.8	12.0	15.3	16.7	14.1	17.1	18.6	15.6
08/30/01	15.6	18.4	13.2	12.8	15.7	11.1	12.3	12.8	12.0	14.7	15.9	13.6	16.1	17.2	15.3
08/31/01	15.0	18.1	12.1	12.2	15.0	10.4	12.4	12.9	12.1	14.1	15.6	12.7	15.5	17.5	13.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

	NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake			Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
Date	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
09/01/01	14.9	18.1	11.9	12.0	15.0	10.1	12.5	12.9	12.3	14.2	15.8	12.8	15.6	17.3	13.7
09/02/01	15.3	18.7	12.2	12.2	15.2	10.4	12.6	13.1	12.3	14.3	15.9	13.0	15.7	17.7	13.7
09/03/01	15.9	18.4	13.5	12.9	15.7	11.1	12.7	13.2	12.4	15.1	16.6	13.9	17.0	18.5	15.6
09/04/01	15.7	18.7	13.0	12.8	15.7	11.1	12.8	13.2	12.6	15.1	16.6	13.7	16.7	18.3	15.0
09/05/01	15.6	18.5	13.2	12.2	14.0	11.2	12.9	13.2	12.6	14.9	16.4	13.9	16.3	18.0	14.2
09/06/01	14.3	17.1	11.6	11.3	13.5	9.8	12.9	13.4	12.8	13.5	14.8	12.2	14.0	15.4	12.8
09/07/01	14.4	17.6	11.6	11.2	13.3	9.6	13.0	13.4	12.8	13.4	15.0	12.2	14.1	15.8	12.8
09/08/01	14.4	17.6	11.6	11.1	13.3	9.6	13.1	13.4	12.9	13.5	15.0	12.2	14.2	15.8	12.8
09/09/01	14.2	17.1	11.5	10.9	13.2	9.5	13.1	13.5	12.9	13.5	15.2	12.0	14.2	16.2	12.5
09/10/01	14.3	17.3	11.5	10.9	12.9	9.5	13.2	13.5	12.9	13.7	15.3	12.2	14.4	16.5	12.5
09/11/01	14.5	16.5	13.2	11.5	12.6	10.7	13.3	13.7	13.1	14.1	15.2	13.3	15.5	16.9	14.3
09/12/01	13.9	16.6	11.3	10.8	12.7	9.3	13.4	13.7	13.1	13.4	14.8	12.0	14.5	16.1	12.6
09/13/01	13.5	16.6	10.4	10.3	12.4	8.8	13.5	13.8	13.2	13.0	14.5	11.7	13.9	15.9	12.0
09/14/01	13.3	16.3	10.4	10.0	12.1	8.4	13.6	14.0	13.4	12.9	14.4	11.4	13.6	15.4	11.5
09/15/01	13.7	16.9	10.9	10.0	12.1	8.5	13.7	14.1	13.4	12.9	14.2	11.7	13.4	14.8	11.9
09/16/01	13.8	16.8	11.2	10.0	11.9	8.5	13.8	14.1	13.5	12.9	14.4	11.7	13.4	15.1	12.0
09/17/01	13.8	16.9	11.0	10.0	11.9	8.5	13.9	14.3	13.7	13.1	14.5	11.9	13.9	15.6	12.3
09/18/01	14.3	17.4	11.5	10.2	12.1	8.8	13.9	14.3	13.7	13.4	14.8	12.2	14.5	16.2	12.9
09/19/01	14.3	17.4	11.5	10.3	12.3	8.8	13.9	14.3	13.7	13.5	15.0	12.2	14.4	16.2	12.9
09/20/01	14.6	17.7	11.9	10.5	12.4	9.1	14.0	14.5	13.8	13.7	15.2	12.7	14.8	16.4	13.6
09/21/01	14.3	17.1	11.6	10.3	12.3	9.0	14.0	14.5	13.8	13.5	14.8	12.4	14.4	15.9	12.9
09/22/01	13.9	16.5	11.5	10.4	11.9	9.1	14.1	14.5	13.8	13.6	14.8	12.7	14.6	15.9	13.4
09/23/01	13.3	16.0	11.0	10.2	11.6	9.0	14.1	14.3	13.8	13.4	14.5	12.4	14.1	15.6	12.6
09/24/01	13.1	16.1	10.2	9.9	11.8	8.5	14.2	14.6	14.0	13.1	14.5	11.7	13.4	15.0	11.7
09/25/01	14.8	17.4	13.0	11.0	12.9	10.1	14.2	14.6	14.0	14.1	15.3	13.3	15.0	16.2	14.0
09/26/01	13.3	16.3	10.5	10.0	11.6	8.7	14.3	14.6	14.1	12.9	14.1	11.7	13.6	15.0	12.2
09/27/01	13.3	16.1	10.7	9.6	11.5	8.4	14.4	14.8	14.1	12.7	14.2	11.4	13.3	15.1	11.5
09/28/01	13.0	15.7	10.5	9.5	11.2	8.2	14.4	14.8	14.3	12.7	13.9	11.9	13.0	14.0	12.2
09/29/01	12.8	15.7	10.2	9.2	10.9	7.9	14.5	14.9	14.3	12.2	13.6	11.1	12.4	13.9	11.2
09/30/01	13.1	16.0	10.5	9.4	11.2	8.1	14.6	14.9	14.5	12.9	14.4	11.6	13.2	15.1	11.5

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

Appendix E: Daily Water Temperatures in the Vicinity of the Stevenson Creek Drainage, 2001

Date	NF Stevenson upstream of Shaver Lake			Stevenson Creek upstream of Shaver Lake			Stevenson Creek downstream of Shaver Lake			Stevenson Creek RR Grade			Stevenson Creek upstream of SJR		
	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum
10/01/01	13.4	15.5	11.3	9.9	11.2	8.7	14.7	15.1	14.5	13.7	15.2	12.7	14.5	16.2	13.1
10/02/01	13.5	16.0	11.2	10.0	11.5	8.8	14.8	15.1	14.6	13.8	15.0	12.7	14.5	15.9	13.3
10/03/01	13.7	16.0	11.3	10.0	11.5	8.8	14.9	15.2	14.6	13.8	14.8	13.0	14.7	15.9	13.4
10/04/01	13.5	15.8	11.3	10.0	11.5	9.0	14.9	15.2	14.8	13.7	14.8	12.8	14.6	15.9	13.6
10/05/01	13.2	15.7	11.3	9.9	11.3	9.1	14.9	15.2	14.8	13.3	14.1	12.5	13.7	14.8	12.3
10/06/01	11.9	14.1	9.8	9.1	10.5	7.9	14.9	15.2	14.8	12.0	12.8	11.1	12.0	13.3	10.9
10/07/01	11.3	13.6	9.0	8.5	10.1	7.3	15.0	15.2	14.8	11.7	12.8	10.7	12.0	13.4	10.5
10/08/01	11.5	13.8	9.1	8.5	9.6	7.4	15.0	15.2	14.9	12.1	13.1	11.1	12.4	13.7	11.2
10/09/01	11.2	13.5	8.8	8.4	9.8	7.1	15.0	15.2	14.9	11.8	12.8	11.0	12.0	12.9	10.9
10/10/01	10.7	13.0	8.4	8.0	9.5	6.8	15.0	15.4	14.9	11.4	12.5	10.5	11.2	12.3	10.0
10/11/01	10.5	12.4	8.5	7.9	9.0	6.8	15.1	15.2	14.9	11.6	12.5	10.8	11.4	12.3	10.6
10/12/01	10.5	12.9	8.2	7.8	9.1	6.5	15.1	15.4	14.9	11.4	12.4	10.5	11.2	12.5	10.1
10/13/01	10.6	13.0	8.2	7.6	9.1	6.4	15.1	15.4	14.9	11.5	12.5	10.5	11.4	12.5	10.0
10/14/01	10.3	12.6	8.2	7.6	9.0	6.4	15.1	15.4	14.9	11.6	12.7	10.5	11.4	12.6	10.0
10/15/01	10.2	12.6	7.9	7.6	9.0	6.5	15.2	15.4	15.1	11.6	12.7	10.7	11.4	12.5	10.3
10/16/01	10.2	12.2	8.1	7.8	9.0	6.7	15.1	15.4	14.9	11.8	12.7	10.8	11.4	12.6	10.3
10/17/01	10.1	12.1	8.4	8.0	9.0	7.0	15.1	15.4	15.1	11.7	12.5	11.0	11.5	12.6	10.5
10/18/01	9.9	12.1	7.8	7.6	8.8	6.5	15.1	15.4	15.1	11.3	12.2	10.5	11.3	12.5	10.0
10/19/01	9.7	11.8	7.8	7.4	8.4	6.4	15.1	15.2	14.9	11.6	12.7	10.7	11.7	12.9	10.5
10/20/01	9.8	11.8	7.8	7.5	8.5	6.4	15.0	15.2	14.9	11.5	12.2	10.7	11.5	12.5	10.3
10/21/01	9.9	11.9	7.8	7.5	8.7	6.5	15.0	15.2	14.9	11.3	12.0	10.5	11.1	11.9	10.0
10/22/01	9.3	11.2	7.3	6.9	8.1	5.9	15.0	15.2	14.9	10.7	11.4	10.0	10.4	11.4	9.4
10/23/01	9.4	11.5	7.4	6.8	8.1	5.9	15.0	15.2	14.9	10.7	11.6	10.0	10.5	11.5	9.5
10/24/01	8.9	11.0	6.8	6.5	7.6	5.4	14.9	15.2	14.8	10.5	11.4	9.6	10.3	11.5	8.8
10/25/01	8.7	10.7	6.7	6.4	7.6	5.3	14.9	15.1	14.8	10.4	11.4	9.7	10.0	11.4	8.9
10/26/01	8.7	10.7	6.8	6.3	7.6	5.3	14.9	15.1	14.8	10.5	11.6	9.7	10.3	11.2	9.4
10/27/01				6.4	7.4	5.4				10.6	11.6	9.9	10.3	11.5	9.2
10/28/01				6.2	7.3	5.3				10.6	11.4	9.9	10.2	11.5	9.2
10/29/01				6.4	7.1	5.4				10.7	11.6	9.9	10.2	11.5	8.9
10/30/01				7.5	8.1	7.1				11.5	11.7	11.0	11.6	12.2	10.6
10/31/01				6.9	7.9	6.2							10.1	11.2	8.9

Data Loss: D-creek dry, F-flow drop, H-human error, M-mechanical failure, V-vandalism

APPENDIX F

METHODS

Appendix F: Methods

1.1 STREAM TEMPERATURE MONITORING

1.1.1 METHODS

The principal task of the temperature monitoring study was to characterize water temperatures in study streams including Project bypass reaches, augmented reaches, and tributary inflows, as well as reservoirs. Each Project bypass stream reach had a water temperature recorder installed at its upstream and its downstream end. Additional stream temperature recorders were installed in longer stream segments that have tributary inflows or have other significant thermal influences. These recorders were sited to provide an enhanced picture of the spatial change in temperature as the streams cool or warm under the influence of meteorology, structure (stream orientation, topography, and vegetation shading), and hydrology.

Meteorological conditions are one of the primary influences on stream and reservoir temperatures. Air temperature is generally recognized as the most important of those factors. Meteorological data were collected in selected locations within the Big Creek Project basin.

In order to understand factors affecting temperatures in Project reservoirs, water temperature of major inflows were characterized. This information is important for potential reservoir modeling, if needed. A temperature recorder was installed at each major inflow point to Project reservoirs. These temperature records provide the starting point for defining the relationships between the variables influencing water temperatures (e.g., meteorology, and Project operations) and the resultant water temperatures throughout the Project area.

Water temperatures near Project intakes within reservoirs also were monitored. Temperature recorders were installed at each Project intake. These temperature records provide information on reservoir temperatures and provide an estimate of water temperatures of diverted water before it enters Project conduits, penstocks and Project powerhouses.

Stream water temperatures in the Project area were monitored during 2000 and 2001. Start and end dates for monitoring depended upon location, access, weather conditions, and safety. Temperature recorders were deployed in locations within selected streams. Locations were selected to represent key locations or features in the streams, to have well-mixed flows, to avoid groundwater influence, and to deter tampering (to the extent feasible). Streams selected for monitoring are listed in Table CAWG 5-1. Monitoring locations, as well as the locations of meteorological stations are shown in Maps CAWG 5-2 through 5-9. Water temperature data were collected in Balsam Creek in 2002 because the diversion was operated in that year, but not in 2000 or 2001. Over

winter data were collected in Bear, Mono, and Camp 61 creeks to evaluate whether pools that provide fish habitat freeze to the bottom in winter.

Each recorder was checked for proper function within seven days of being placed in operation or upon having been reset. A calibration hack (check) was made upon resetting. The calibration hacks consist of measuring water temperature at the location of the instrument transducer with a calibrated thermometer whose calibration is traceable to a recognized standard; the date, time, and temperature are recorded in each case and compared to the corresponding temperature measured by the electronic recorder. Recorders were well hidden and were examined for tampering during any checks.

Recorders were programmed to record hourly temperature data. Water temperature loggers and meteorology stations were checked approximately monthly to reduce data loss from equipment malfunction and tampering. The data were downloaded onto a laptop computer. The data were exported to spreadsheets, and the appropriate calculations (daily mean temperature, maximum daily temperature, and minimum daily temperature) were made. All data calculations were subject to Quality Control (QC) verification.

Data collected from the temperature loggers, along with other information collected, will allow stream temperatures to be modeled. Additional temperature data will be collected in other years to characterize the effects of different water-year types and heating conditions.

1.2 RESERVOIR PROFILES

1.2.1 OBJECTIVES

The first objective of this study component was to characterize water temperatures and temperature stratification in Project reservoirs. Water temperature profile data were collected at monthly intervals in multiple locations in each reservoir. In addition, water temperatures were recorded at points where water from the powerhouses are released back to reservoirs and streams.

The second objective was to collect data to characterize heating and heat content of Project reservoirs. Inflow and outflow temperatures, as well as water temperature profiles, are used to characterize the thermal structure and heating of each reservoir. This information will help determine the type of model appropriate to simulate reservoir heat flux and to calibrate reservoir models, if modeling is needed. A well-calibrated model can provide a reliable starting point for predicting the downstream temperatures that may result from future Project operations, as well as from meteorological and hydrological conditions that are considerably different from those observed during the study field seasons.

The third objective is to collect additional data to describe thermal stratification in Project reservoirs. Dissolved oxygen (DO) and specific conductance profiles were recorded in addition to temperature profiles in Project reservoirs. These

data are useful in corroborating the results of water temperature profiles and to help describe habitat conditions for reservoir fish (discussed in CAWG 1 Characterize Stream and Reservoir Habitats Report; SCE 2003).

1.2.2 METHODS

Temperature, dissolved oxygen, and specific conductance data were collected from three or more pre-selected sites at each reservoir or lake in the Project area. One profile was taken near the dam near the downstream end of each reservoir, usually the deepest area of the reservoir, one profile was taken near mid-reservoir, and one was taken at the upstream end. Where a reservoir has more than one major "arm", a profile was generally taken within each arm.

The numbers of locations and specific impoundments in which reservoir profiles were taken are listed in Table CAWG 5-2 and shown in Maps CAWG 5-2 through 5-9. Table CAWG 5-3 presents the powerhouse tailraces that were monitored. Reservoirs were monitored over several years to characterize the effects of different water year-types and heating conditions.

Profiles were measured monthly from late spring through fall to determine if thermal stratification occurs in the impoundment and, if so, to describe the stratification. Generally, DO and conductivity were profiled concurrently with temperature.

Water temperatures at major inflows and outflows (intakes) at reservoirs and lakes were recorded hourly with electronic water temperature loggers. Profile data were taken from a small boat. Dissolved oxygen and temperature were measured with a Hydrolab Quanta or YSI DO/Temperature meter or equivalent. Specific conductance values were measured with a YSI conductivity meter or equivalent.

Reservoir elevations were obtained from USGS and capacities of flow release structures were obtained from SCE files for use in analyzing cold water storage and water volumes in reservoirs. This information also is needed, if reservoir modeling is needed later.

1.3 METEOROLOGICAL MONITORING

1.3.1 OBJECTIVES

Meteorological conditions have a direct influence on water temperatures. Meteorological data were collected to characterize the response of Big Creek reservoir and stream temperatures to changes in meteorological conditions.

The first objective of this study component was to collect meteorological data to characterize heating and mixing conditions. Solar radiation and air temperature have a profound effect on stream and reservoir temperatures. Humidity and wind also influence both stream and reservoir temperatures. Wind speed and fetch

(the distance over which a wind blows) can profoundly affect mixing in reservoirs. Meteorological conditions were monitored concurrently with reservoir and stream temperatures records to provide the data necessary to develop the thermodynamic and physical relationships influencing local reservoir and stream temperatures.

The second objective was to collect data to characterize differences in heating with elevation and location. On any day, substantial variation in local meteorological conditions can occur over the Project area, especially in such mountainous terrain. Air temperatures and wind conditions at an exposed reservoir can be substantially different from conditions in a shaded stream. To help characterize local conditions, air temperature and other meteorological data were collected concurrently at strategically distributed locations. Locations of meteorological stations are shown in Maps CAWG 5-2 through 5-9.

The third objective was to collect data over more than one year to characterize a variety of meteorological conditions. Meteorological data were collected concurrently with stream and reservoir temperatures to establish the influence of meteorology on Big Creek stream and reservoir temperatures. A meteorological data set of more than a single year will also provide insight into the relationship between current and historical records in the Project area. This insight can be used to help forecast of Project stream and reservoir temperatures.

The fourth objective was to provide enough data to analyze Project effects on water temperatures and to calibrate and verify water temperature models. Local, concurrent meteorological data will be important for potential stream and reservoir temperature modeling. A data collection of more than one set of conditions improves model calibration and thus the confidence in model predictions.

1.3.2 METHODS

Meteorological stations were established at five principal locations to measure air temperature, relative humidity, wind speed, wind direction, and solar radiation (Maps CAWG 5-2 through CAWG 5-9). The stations were located to provide the data necessary to establish the thermodynamic relationships previously discussed. Stations were sited in accessible yet protected locations.

Air temperature and relative humidity stations were operated at additional locations to assist with calibration of water temperature models, if needed. As previously discussed, recording locations have been distributed within the Project area to characterize local variations. These monitoring sites were sited at representative and accessible locations.

Meteorological data were collected from locations at or near bodies of water within the Project area from the late spring through fall of 2000 and 2001. Meteorological data were used to characterize the heating and mixing conditions

in Project waters. Data were collected at locations distributed at a range of elevations and locales to characterize differences in meteorological conditions in the Project area. Data were collected for more than one year to characterize the effects of year-to-year differences in conditions that may affect water temperatures.

Locations for meteorological stations were selected after review of USGS topographic maps and on-site inspection. Selected sites cover a range of elevations at or near bodies of water in the Project area. Meteorological stations recorded air temperature, relative humidity, wind speed, wind direction, and insulation at five or more principal locations throughout the Project area. Air temperature and relative humidity stations were operated at additional locations to help characterize local, riparian microclimatic conditions. This will assist with water temperature model calibration, if needed. All meteorological data were recorded hourly at each station. The instruments electronically recorded data for each station. Data were retrieved and downloaded to a laptop computer, generally once per month.

Meteorological stations have been set up at locations listed in Table CAWG 5-4. These include both full meteorological stations at the major Project reservoirs and air temperature/relative humidity stations located at stream segments.

APPENDIX G

TEMPERATURE MONITORING DATA GAPS

APPENDIX G – TEMPERATURE MONITORING DATA GAPS

Water temperature recorders were deployed in study stream reaches, major inflow points to Project reservoirs, Project reservoirs and impoundments, and near Project intakes within reservoirs. Each recorder was checked for proper functioning within seven days of being placed in operation or upon resetting. Water temperature loggers and meteorology stations were checked on an approximately monthly basis to reduce data losses from equipment malfunction and tampering. Data gaps occurred due to project streams becoming dry, flow dropping and stranding recorders, human error, mechanical failure, or vandalism. Tables CAWG 5 Appendix G-1 and G-2 summarize data gaps that occurred in 2000 and 2001, respectively.

Table CAWG 5 Appendix G-1. Total or Partial Day Data Gaps for the Big Creek ALP, 2000.

South Fork San Joaquin Reach	Data Gap 1	Data Gap 2	Data Gap 3	Data Gap 4	Data Gap 5	Data Gap 6	Data Gap 7	Data Gap 8	Data Gap 9	Data Gap 10	Data Gap 11	Data Gap 12
SF SJR Upstream of Florence Lake	7/7/2000--7/31/2000											
SF SJR Downstream of Florence Lake	9/18/2000--10/23/2000											
SF SJR Downstream of Jackass Meadow												
SF SJR Upstream of Hooper Creek												
SF SJR Upstream of Crater Creek												
SF SJR Upstream of Bear Creek	6/02/2000--7/17/2000											
SF SJR Upstream of Mono Hot Springs												
SF SJR Upstream of Camp 62 Creek												
SF SJR Upstream of Bolsillo Creek												
SF SJR Upstream of Camp 61 Creek												
SF SJR Upstream of Mono Creek												
SF SJR Upstream of Warm Creek												
SF SJR Upstream of Rattlesnake Creek	8/14/2000--09/26/2000											
SF SJR Upstream of Hoffman Creek												
SF SJR Upstream of Middle Fork Confluence												
Boulder Creek upstream of Florence Lake	8/22/2000--9/22/2000											
Tombstone Creek												
North Slide Creek												
South Slide Creek	8/15/2000--10/23/2000											
Hooper Creek upstream of Diversion	6/8/2000--6/29/2000											
Hooper Creek Diversion	10/1/2000--10/23/2000											
Hooper Creek downstream of Diversion	6/8/2000--6/28/2000											
Hooper Creek upstream of SF San Joaquin River												
Crater Creek Diversion												
Crater Creek upstream of Florence Lake	7/16/2000--7/18/2000	8/18/2000--10/31/2000										
Crater Creek upstream of SF SJR												
Bear Creek upstream of Diversion	8/11/2000--8/17/2000	10/8/2000--10/31/2000										
Bear Creek Diversion												
Bear Creek downstream of Diversion	6/8/2000--7/17/2000	10/7/2000--10/31/2000										
Bear Creek upstream of SF SJR												
Chinquapin Creek upstream of diversion												
Camp 62 Creek upstream of diversion												
Camp 62 Creek upstream of confluence												
Bolsillo Creek upstream of diversion												
Bolsillo Creek upstream of confluence												
Camp 61 Creek upstream of confluence												
Mono Creek upstream of Diversion												
Mono Creek Diversion	7/6/2000--7/18/2000	08/31/00	09/13/00	9/20/2000--9/22/2000								
Mono Creek downstream of Diversion												
Mono Creek upstream of SF San Joaquin River												
Warm Creek upstream of SF SJR												
Rattlesnake Creek upstream of SF SJR	8/14/2000--9/26/00											
Four Forks Creek upstream SFSJR												
Four Forks Crk upstream of Rock Crk												
Rock Crk upstream of 4 Forks Crk												
Hoffman Creek upstream of SFSJR												
Rube Creek upstream of SFSJR												
Huntington Lake												
Big Creek upstream of Huntington Lake	7/20/2000--8/14/2000											
Coon Creek												
Potter Creek	7/20/2000--7/31/2000											
Rancheria Creek												
Line Creek	8/14/2000--10/25/2001											
Home Camp Creek												
Big Creek Reach												
Big Creek downstream of Dam 1												
Big Creek Canyon												
Big Creek upstream Powerhouse 1												
Big Creek downstream of Dam 4												
Big Creek upstream of Balsam Creek	9/2/2000--9/26/2000											
Big Creek upstream Powerhouse 2												
Big Creek downstream of Dam 5												
Big Creek upstream of Powerhouse 8	9/23/2000--10/24/2000											
PH 8 tailrace												
Pitman Conduit Diversion												
Pitman Crk upstream of Dam 4												
Balsam Crk downstream of forebay												
Balsam Crk Diversion	7/20/2000--8/15/2000											
Balsam Crk us Big Crk												
Ely Crk Div												
Ely Crk us Big Crk												
Sheepthief Creek												
Ordinance Crk	8/10/2000--8/15/2000											

Table CAWG 5 Appendix G-1. Total or Partial Day Data Gaps for the Big Creek ALP, 2000.

Power Generation												
Ward Tunnel Intake	9/13/2000--9/26/2000											
Portal Powerhouse Tailrace	07/18/00	9/4/2000--9/5/2000	9/23/2000--10/31/2000									
Tunnel 1 intake												
Big Crk PH1 tailrace	10/10/2000--10/15/2000											
Tunnel 2 intake	6/20/2000--7/18/2000											
PH 2 tailrace												
Tunnel 5 intake	6/20/2000--7/12/2000											
PH 2A tailrace												
Tunnel 8 intake												
Mpool Tunnel intake	7/2/2000--7/6/2000											
Mpool Powerhouse Tailrace	7/8/2000--7/24/2000	7/29/2000--7/30/2000	8/6/2000--8/14/2000	08/16/00	8/18/2000--8/29/2000							
Tunnel 3 intake												
ds PH3												
Mammoth Reach												
San Joaquin River upstream of Mammoth Pool	6/16/2000--9/11/2000											
Jackass Crk upstream of Mammoth Pool	9/7/2000--10/31/2000											
Mill Crk upstream of Mammoth Pool	9/7/2000-10/9/2000											
Kaiser Crk upstream of Mammoth Pool	9/7/2000--10/31/2000											
Daulton Crk upstream of Mammoth Pool												
Chiquito Crk upstream of Mammoth Pool	6/15/2000--7/19/2000											
San Joaquin River downstream of Mammoth Pool												
San Joaquin River upstream of Rock Creek	6/21/2000--7/6/2000											
San Joaquin River upstream of Ross Creek	6/25/2000--7/6/2000											
San Joaquin River upstream of MPPH	6/23/2000--6/28/2000	6/30/2000--7/2/2000	7/5/2000--7/6/2000	7/8/2000--7/11/2000	7/13/2000--7/27/2000	7/29/2000--8/1/2000	8/3/2000--8/10/2000	8/18/2000--8/22/2000	08/27/00	8/30/2000--9/12/2000	9/23/2000--9/24/2000	9/30/2000--10/1/2000
Rock Crk diversion												
Rock Crk upstream of San Joaquin River												
Ross Crk diversion	9/12/2000--10/31/2000											
Ross Crk upstream of San Joaquin River	7/3/2000--10/5/2000											
Shakeflat Crk us SJR												
Horsethief Crk us SJR	8/31/2000--9/4/2000											
Fish Crk us SJR	9/12/2000--10/31/2000											
Shaver Lake												
Tunnel 7 Intake												
NF Stevenson downstream of Tunnel 7												
NF Stevenson upstream of Shaver Lake												
Stevenson Creek upstream of Shaver Lake												
Eastwood Powerhouse Tailrace												
Balsam Meadow Forebay Intake	7/4/2000--7/6/2000	7/17/2000	7/20/2000--7/22/2000	7/24/2000--7/30/2000	8/3/2000--8/18/2000	8/20/2000--8/22/2000						
Balsam Meadow Diversion Conduit	6/14/2000--7/23/2000	7/27/2000--9/24/2000										
Stevenson Crk downstream of Shaver Lake												
Stevenson Crk RR Grade	7/20/2000--8/10/2000											
Stevenson Crk upstream of SJR												
San Joaquin Reach												
SJR us Stevenson Creek	6/25/2000--6/27/2000	07/01/00	7/4/2000--7/12/2000									
Lake Redinger at Italian Bar Bridge												
Saginaw Creek Inflow	7/27/2000--10/31/2000											
Tunnel 4 Intake	07/26/00	07/30/00	8/18/2000--8/19/2000									
Meteorology												
Florence Lake												
Rattlesnake Creek	9/26/2000--10/31/2000											
SJR upstream of Mammoth Pool	6/16/2000--7/19/2000											
Huntington Lake	6/8/2000--6/22/2000											
upstream of PH 2	7/20/2000--8/7/2000											
Eastwood PH												
PH3 Air Temp	9/5/2000--10/29/2000											
Mammoth Pool												
Mammoth Pool PH	7/6/2000--8/7/2000											
Stevenson Creek at Railroad Grade	7/20/2000--10/31/2001											
Lake Edison	06/29/00											

*data gaps have occurred due to project streams becoming dry, flow dropping, human error, mechanical failure, or vandalism.

Table CAWG 5 Appendix G-2. Total or Partial Data Gaps for the Big Creek ALP, 2001.

South Fork San Joaquin Reach	Data Gap 1	Data Gap 2	Data Gap 3	Data Gap 4	Data Gap 5
SF SJR Upstream of Florence Lake	7/18/2001--8/2/2001	8/7/2001--9/16/2001	9/30/2001--10/12/2001		
SF SJR Downstream of Florence Lake	7/5/2001--7/11/2001				
SF SJR Downstream of Jackass Meadow					
SF SJR Upstream of Hooper Creek					
SF SJR Upstream of Crater Creek					
SF SJR Upstream of Bear Creek					
SF SJR Upstream of Mono Hot Springs	5/22/2001--6/27/2001				
SF SJR Upstream of Camp 62 Creek					
SF SJR Upstream of Bolsillo Creek					
SF SJR Upstream of Camp 61 Creek	7/10/2001--7/15/2001				
SF SJR Upstream of Mono Creek					
SF SJR Upstream of Warm Creek					
SF SJR Upstream of Rattlesnake Creek					
SF SJR Upstream of Hoffman Creek					
SF SJR Upstream of Middle Fork Confluence					
Boulder Creek upstream of Florence Lake					
Tombstone Creek	7/17/2001--10/22/2001				
North Slide Creek					
South Slide Creek	7/24/2001--10/22/2001				
Hooper Creek upstream of Diversion					
Hooper Creek Diversion					
Hooper Creek downstream of Diversion					
Hooper Creek upstream of SF San Joaquin River					
Crater Creek Diversion					
Crater Creek upstream of Florence Lake	7/27/2001--10/22/2001				
Crater Creek upstream of SF SJR					
Bear Creek upstream of Diversion	9/27/2001--10/11/2001				
Bear Creek Diversion					
Bear Creek downstream of Diversion					
Bear Creek upstream of SF SJR					
Chinquapin Creek upstream of diversion					
Camp 62 Creek upstream of diversion					
Camp 62 Creek upstream of confluence					
Bolsillo Creek upstream of diversion					
Bolsillo Creek upstream of confluence					
Camp 61 Creek upstream of confluence					
Mono Creek upstream of Diversion					
Mono Creek Diversion					
Mono Creek downstream of Diversion	9/4/2001--10/11/2001				
Mono Creek upstream of SF San Joaquin River					
Warm Creek upstream of SF SJR	5/26/2001--6/10/2001				
Rattlesnake Creek upstream of SF SJR					
Four Forks Creek upstream SFSJR					
Four Forks Crk upstream of Rock Crk					
Rock Crk upstream of 4 Forks Crk					
Hoffman Creek upstream of SFSJR	7/24/2001--8/8/2001				
Rube Creek upstream of SFSJR					

Table CAWG 5 Appendix G-2. Total or Partial Data Gaps for the Big Creek ALP, 2001.

Huntington Lake					
Big Creek upstream of Huntington Lake					
Coon Creek					
Potter Creek					
Rancheria Creek					
Line Creek					
Home Camp Creek					
Big Creek Reach					
Big Creek downstream of Dam 1					
Big Creek Canyon					
Big Creek upstream Powerhouse 1					
Big Creek downstream of Dam 4					
Big Creek upstream of Balsam Creek					
Big Creek upstream Powerhouse 2					
Big Creek downstream of Dam 5					
Big Creek upstream of Powerhouse 8					
PH 8 tailrace	5/17/2001--5/18/2001	5/22/2001--5/23/2001	10/09/01		
Pitman Conduit Diversion					
Pitman Crk upstream of Dam 4					
Balsam Crk downstream of forebay					
Balsam Crk Diversion					
Balsam Crk us Big Crk					
Ely Crk Div	8/6/2001--10/30/2001				
Ely Crk us Big Crk	8/1/2001--8/3/2001	8/6/2001--8/9/2001	8/14/2001--8/15/2001	08/17/01	8/21/2001--8/24/2001
Sheepthief Creek					
Ordinance Crk					
Power Generation					
Ward Tunnel Intake	8/27/2001--10/15/2001				
Portal Powerhouse Tailrace					
Tunnel 1 intake	5/21/2001--6/21/2001				
Big Crk PH1 tailrace					
Tunnel 2 intake					
PH 2 tailrace					
Tunnel 5 intake					
PH 2A tailrace					
Tunnel 8 intake					
Mpool Tunnel intake					
Mpool Powerhouse Tailrace					
Tunnel 3 intake					
ds PH3					
Mammoth Reach					
San Joaquin River upstream of Mammoth Pool					
Jackass Crk upstream of Mammoth Pool	7/13/2001--7/14/2001	8/2/2001--8/4/2001			
Mill Crk upstream of Mammoth Pool	6/24/2001--7/17/2001				
Kaiser Crk upstream of Mammoth Pool					

Table CAWG 5 Appendix G-2. Total or Partial Data Gaps for the Big Creek ALP, 2001.

Daulton Crk upstream of Mammoth Pool					
Chiquito Crk upstream of Mammoth Pool	9/25/2001--10/16/2001				
San Joaquin River downstream of Mammoth Pool					
San Joaquin River upstream of Rock Creek					
San Joaquin River upstream of Ross Creek					
San Joaquin River upstream of MPPH					
Rock Crk diversion	6/30/2001--7/24/2001	10/13/2001--10/28/2001			
Rock Crk upstream of San Joaquin River					
Ross Crk diversion	7/1/2001--7/5/2001	7/30/2001--10/28/2001			
Ross Crk upstream of San Joaquin River	7/18/2001--10/28/2001				
Shakeflat Crk us SJR					
Horsethief Crk us SJR					
Fish Crk us SJR					
Shaver Lake					
Tunnel 7 Intake					
NF Stevenson downstream of Tunnel 7	9/28/2001--10/13/2001				
NF Stevenson upstream of Shaver Lake					
Stevenson Creek upstream of Shaver Lake	5/27/2001--7/10/2001				
Eastwood Powerhouse Tailrace					
Balsam Meadow Forebay Intake					
Balsam Meadow Diversion Conduit					
Stevenson Crk downstream of Shaver Lake					
Stevenson Crk RR Grade					
Stevenson Crk upstream of SJR					
San Joaquin Reach					
SJR us Stevenson Creek					
Lake Redinger at Italian Bar Bridge	9/25/2001--10/19/2001				
Saginaw Creek Inflow	6/7/2001--10/28/2001				
Tunnel 4 Intake	9/28/2001--10/8/2001				
Meteorology					
Florence Lake					
Rattlesnake Creek	6/15/2001--7/12/2001				
SJR upstream of Mammoth Pool	6/22/2001--6/24/2001				
Huntington Lake	6/8/2001--6/21/2001				
upstream of PH 2					
Eastwood PH					
PH3 Air Temp	6/10/2001--6/23/2001				
Mammoth Pool	6/12/2001--6/22/2001	07/08/01			
Mammoth Pool PH					
Stevenson Creek at Railroad Grade	6/23/2001--6/25/2001				
Lake Edison					

*data gaps have occurred due to project streams becoming dry, flow dropping, human error, mechanical failure, or vandalism.

APPENDIX H

DAILY MEAN AND DAILY MAXIMUM WATER TEMPERATURE EXCEEDANCES

APPENDIX H

Number Of Days Exceeding Each Of A Range of Temperatures

SECTION A

Daily Mean Temperatures

Appendix H Table H-A1

Boulder Creek Upstream of Florence Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	12	21%	2%
June	0	0	0	0	0	0	23	0	0	0	0	0	0	30	8%	17%
July	1	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	21	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	8	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	24	0	0	0	0	0	0	12	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A2

SF SJR Upstream of Florence Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	12	21%	2%
June	0	0	0	0	0	0	23	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	6	2	0	0	0	0	0	17	78%	54%
August	7	0	0	0	0	0	31	3	1	0	0	0	0	4	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	13	57%	27%
October	0	0	0	0	0	0	24	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A3

South Fork San Joaquin River Downstream of Florence Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	23	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	24	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	17	12	5	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	6	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A4

South Fork San Joaquin River Downstream of Jackass Meadow

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	1	0	0	0	0	0	23	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	3	0	0	0	0	0	31	17%	19%
Sept	4	0	0	0	0	0	30	8	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	23	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A5

South Fork San Joaquin River Upstream of Hooper Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	17	2	0	0	0	0	0	23	8%	17%
July	1	0	0	0	0	0	31	6	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	21	0	0	0	0	0	31	17%	19%
Sept	2	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	23	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A6

South Fork San Joaquin River Upstream of Crater Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	1	0	0	0	0	0	18	7	2	0	0	0	0	30	8%	17%
July	7	1	0	0	0	0	31	12	2	0	0	0	0	31	78%	54%
August	5	0	0	0	0	0	31	27	14	0	0	0	0	31	17%	19%
Sept	2	0	0	0	0	0	30	1	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A7

South Fork San Joaquin River Upstream of Bear Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	1	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	17	6	0	0	0	0	30	8%	17%
July	12	4	0	0	0	0	14	21	8	2	0	0	0	31	78%	54%
August	11	2	0	0	0	0	31	29	24	3	0	0	0	31	17%	19%
Sept	2	0	0	0	0	0	30	3	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A8

South Fork San Joaquin River Upstream of Mono Hot Springs

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	29	3	3	2	0	0	0	3	8%	17%
July	24	18	4	0	0	0	31	28	23	11	2	0	0	31	78%	54%
August	23	10	2	0	0	0	31	31	28	23	2	0	0	31	17%	19%
Sept	4	0	0	0	0	0	30	8	1	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	27	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A9

South Fork San Joaquin River Upstream of Camp 62 Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	4	2	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	29	28	23	13	6	0	0	30	8%	17%
July	28	22	14	1	0	0	31	29	27	18	7	1	0	31	78%	54%
August	28	17	6	0	0	0	31	31	29	28	19	1	0	31	17%	19%
Sept	6	0	0	0	0	0	30	14	3	1	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A10

South Fork San Joaquin River Upstream of Bolsillo Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	5	2	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	29	28	24	14	6	2	0	30	8%	17%
July	28	22	14	2	0	0	31	29	27	24	10	2	0	31	78%	54%
August	29	19	9	1	0	0	31	31	30	28	22	2	0	31	17%	19%
Sept	6	0	0	0	0	0	30	16	6	1	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A11

South Fork San Joaquin River Upstream of Camp 61 Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	8	3	2	0	0	0	9	21%	2%
June	2	0	0	0	0	0	4	30	27	22	11	5	1	30	8%	17%
July	31	24	22	13	2	0	31	25	24	22	17	7	2	25	78%	54%
August	31	26	16	6	1	0	31	31	31	28	26	16	1	31	17%	19%
Sept	9	1	0	0	0	0	30	19	10	3	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A12

South Fork San Joaquin River Upstream of Mono Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	9	4	2	1	0	0	9	21%	2%
June	2	1	0	0	0	0	4	30	27	23	13	6	1	30	8%	17%
July	31	27	22	16	2	0	31	31	30	27	21	8	3	31	78%	54%
August	31	26	18	8	2	0	31	31	31	28	26	16	2	31	17%	19%
Sept	9	1	0	0	0	0	30	19	10	3	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A13

South Fork San Joaquin River Upstream of Warm Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	18	16	10	4	0	0	18	8%	17%
July	0	0	0	0	0	0	0	31	29	26	7	2	0	31	78%	54%
August	0	0	0	0	0	0	0	31	30	28	20	3	0	31	17%	19%
Sept	0	0	0	0	0	0	0	16	6	2	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A14

South Fork San Joaquin River Upstream of Rattlesnake Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	5	0	0	0	0	0	31	21%	2%
June	2	1	0	0	0	0	4	26	19	13	6	2	0	30	8%	17%
July	31	25	19	2	0	0	31	31	31	26	14	3	0	31	78%	54%
August	13	13	7	3	0	0	13	31	31	28	24	11	0	31	17%	19%
Sept	0	0	0	0	0	0	4	18	9	3	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A15

South Fork San Joaquin River Upstream of Hoffman Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	3	1	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	26	16	7	3	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	31	24	11	3	0	31	78%	54%
August	24	18	10	1	0	0	24	31	31	27	22	6	0	31	17%	19%
Sept	6	0	0	0	0	0	30	13	7	3	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	25	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A16

South Fork San Joaquin River Upstream of San Joaquin River Confluence

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	11	7	1	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	30	27	22	11	4	0	30	8%	17%
July	0	0	0	0	0	0	0	31	31	31	31	26	9	31	78%	54%
August	22	22	22	15	6	0	22	31	31	31	30	26	16	31	17%	19%
Sept	18	10	1	0	0	0	30	28	23	11	6	1	0	30	57%	27%
October	0	0	0	0	0	0	31	4	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A17

Tombstone Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	23	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	16	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	0	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	23	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A18

South Slide Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	23	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	23	78%	54%
August	0	0	0	0	0	0	14	0	0	0	0	0	0	0	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A19

North Slide Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	23	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	23	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A20

Hooper Creek Upstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	1	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	23	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A21

Hooper Creek Downstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	2	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	23	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A22

Hooper Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	17	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	23	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A23

Hooper Creek Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	23	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A24

Crater Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	18	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	27	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A25

Crater Diversion Inflow to Florence Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	23	0	0	0	0	0	0	23	8%	17%
July	2	0	0	0	0	0	28	2	1	0	0	0	0	26	78%	54%
August	10	4	1	0	0	0	17	0	0	0	0	0	0	0	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A26

Crater Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	1	0	0	0	0	0	18	0	0	0	0	0	0	23	8%	17%
July	7	1	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	5	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	2	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A27

Bear Creek Upstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	24	0	0	0	0	0	0	20	8%	17%
July	2	0	0	0	0	0	31	6	0	0	0	0	0	31	78%	54%
August	4	0	0	0	0	0	24	25	6	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	26	57%	27%
October	0	0	0	0	0	0	7	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A28

Bear Creek Downstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	1	0	0	0	0	0	19	8%	17%
July	3	0	0	0	0	0	14	13	2	0	0	0	0	31	78%	54%
August	6	0	0	0	0	0	31	27	21	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	4	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	6	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A29

Bear Creek upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	24	9	3	0	0	0	0	30	8%	17%
July	14	2	0	0	0	0	31	24	13	1	0	0	0	31	78%	54%
August	12	5	0	0	0	0	31	29	25	7	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	4	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A30

Bear Creek Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	23	2	0	0	0	0	0	20	8%	17%
July	2	0	0	0	0	0	31	19	9	6	1	0	0	31	78%	54%
August	8	0	0	0	0	0	31	31	31	28	22	1	0	31	17%	19%
Sept	0	0	0	0	0	0	30	15	8	2	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	11	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A31

Camp 62 Creek Upstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	11	21%	2%
June	0	0	0	0	0	0	24	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A32

Camp 62 Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	29	0	0	0	0	0	0	30	8%	17%
July	2	0	0	0	0	0	31	10	1	0	0	0	0	31	78%	54%
August	9	0	0	0	0	0	31	26	13	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A33

Chinquapin Creek Upstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	11	21%	2%
June	0	0	0	0	0	0	29	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A34

Bolsillo Creek Upstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	15°C	16°C	17°C	18°C	19°C	20°C		15°C	16°C	17°C	18°C	19°C	20°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	11	21%	2%
June	0	0	0	0	0	0	29	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A35

Bolsillo Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	15°C	16°C	17°C	18°C	19°C	20°C		15°C	16°C	17°C	18°C	19°C	20°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	29	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	6	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A36

Mono Creek Upstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	15°C	16°C	17°C	18°C	19°C	20°C		15°C	16°C	17°C	18°C	19°C	20°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	24	0	0	0	0	0	0	20	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	25	14	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	10	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A37

Mono Creek Downstream of Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	24	0	0	0	0	0	0	20	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	3	1	0	0	0	0	3	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	20	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A38

Mono Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	1	0	0	0	0	0	9	21%	2%
June	1	0	0	0	0	0	4	9	2	0	0	0	0	30	8%	17%
July	15	0	0	0	0	0	31	22	3	0	0	0	0	31	78%	54%
August	5	0	0	0	0	0	31	28	19	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	7	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A39

Mono Creek Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	24	0	0	0	0	0	0	20	8%	17%
July	0	0	0	0	0	0	18	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	30	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	26	26	16	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	0	0	0	0	0	0	11	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A40

Warm Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	23	21%	2%
June	0	0	0	0	0	0	5	0	0	0	0	0	0	21	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	12	0	0	0	0	0	0	11	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A41

San Joaquin River Upstream of South Fork San Joaquin Confluence

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	8	4	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	30	18	6	1	0	31	78%	54%
August	22	18	8	0	0	0	22	31	31	29	26	11	1	31	17%	19%
Sept	11	5	0	0	0	0	30	29	19	7	3	0	0	30	57%	27%
October	0	0	0	0	0	0	31	6	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A42

San Joaquin River Upstream of Mammoth Pool

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	15	8	4	0	0	0	25	8%	17%
July	0	0	0	0	0	0	0	31	31	30	18	6	1	31	78%	54%
August	0	0	0	0	0	0	0	31	31	31	28	25	7	31	17%	19%
Sept	13	9	3	0	0	0	19	30	27	11	6	1	0	30	57%	27%
October	1	0	0	0	0	0	27	6	1	0	0	0	0	16	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A43

San Joaquin River Downstream of Mammoth Pool

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	14	11	10	4	1	0	15	8	0	0	0	0	0	25	8%	17%
July	12	2	0	0	0	0	31	17	0	0	0	0	0	31	78%	54%
August	31	31	27	13	4	0	31	31	30	16	8	3	0	31	17%	19%
Sept	30	30	30	30	9	0	30	30	30	30	30	28	13	30	57%	27%
October	21	14	10	6	0	0	31	28	21	14	6	2	0	28	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A44

San Joaquin River Upstream of Rock Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	5	5	5	1	0	0	5	24	24	24	20	13	2	24	8%	17%
July	25	25	21	11	4	1	25	31	31	31	23	6	0	31	78%	54%
August	31	31	31	31	17	7	31	31	31	31	29	22	2	31	17%	19%
Sept	30	30	30	15	6	0	30	30	30	30	28	18	0	30	57%	27%
October	12	9	9	0	0	0	31	19	10	6	4	0	0	19	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A45

San Joaquin River Upstream of Ross Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	26	18	10	5	1	0	31	21%	2%
June	3	3	3	3	3	0	3	30	30	27	25	22	14	30	8%	17%
July	25	25	25	24	21	10	25	31	31	31	31	31	22	31	78%	54%
August	31	31	31	31	29	20	31	31	31	31	31	29	26	31	17%	19%
Sept	30	30	30	14	8	0	30	30	30	30	27	16	5	30	57%	27%
October	10	9	8	0	0	0	31	16	9	6	5	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A46

San Joaquin River Upstream of Mammoth Pool Powerhouse

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	25	18	8	3	0	0	31	21%	2%
June	3	3	3	3	0	0	3	30	30	27	25	21	13	30	8%	17%
July	5	5	4	2	1	1	5	31	31	31	31	31	21	31	78%	54%
August	14	14	14	14	13	7	14	31	31	31	31	28	26	31	17%	19%
Sept	15	14	13	9	1	0	15	30	30	30	27	14	5	30	57%	27%
October	9	8	3	0	0	0	30	15	9	6	5	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A47

Rock Creek Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	7	3	0	0	0	0	31	21%	2%
June	15	15	15	4	0	0	15	19	9	3	0	0	0	29	8%	17%
July	28	22	12	2	1	0	31	7	7	7	6	2	0	7	78%	54%
August	31	25	15	8	5	1	31	31	31	28	26	14	3	31	17%	19%
Sept	8	2	0	0	0	0	30	26	12	6	5	0	0	30	57%	27%
October	0	0	0	0	0	0	31	4	0	0	0	0	0	12	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A48

Rock Creek Upstream of San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	15	15	15	9	1	0	15	24	24	24	24	20	17	24	8%	17%
July	31	29	25	21	11	1	31	31	31	31	31	30	16	31	78%	54%
August	31	29	24	12	7	6	31	31	31	30	27	22	7	31	17%	19%
Sept	13	6	0	0	0	0	30	27	19	6	5	0	0	30	57%	27%
October	0	0	0	0	0	0	31	5	0	0	0	0	0	28	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A49
Ross Creek Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	16	8	7	0	0	0	31	21%	2%
June	9	9	9	9	3	0	9	28	27	22	16	11	6	30	8%	17%
July	31	28	23	20	12	4	31	24	24	24	24	24	15	24	78%	54%
August	31	31	31	29	23	15	31	0	0	0	0	0	0	0	17%	19%
Sept	11	7	2	0	0	0	11	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A50
Ross Creek Upstream of San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	29	27	24	22	14	8	31	21%	2%
June	0	0	0	0	0	0	9	30	30	30	30	28	24	30	8%	17%
July	0	0	0	0	0	0	2	17	17	17	17	17	17	17	78%	54%
August	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57%	27%
October	5	4	2	0	0	0	26	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A51
San Joaquin River Downstream of Dam 6

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	24	11	4	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	30	28	1	0	0	30	57%	27%
October	0	0	0	0	0	0	0	27	21	13	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A52

San Joaquin River Upstream of Stevenson Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	9	9	5	4	2	0	31	21%	2%
June	0	0	0	0	0	0	7	24	24	23	22	15	7	30	8%	17%
July	16	12	9	5	2	0	21	31	31	31	31	31	31	31	78%	54%
August	31	31	23	13	7	4	31	31	31	31	31	31	27	31	17%	19%
Sept	30	30	21	11	0	0	30	30	30	30	27	13	5	30	57%	27%
October	10	9	3	0	0	0	28	22	11	8	5	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A53

San Joaquin River Downstream of Big Creek Powerhouse 3

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	9	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	27	16	7	0	0	0	31	24	11	4	0	0	0	31	17%	19%
Sept	30	28	18	5	0	0	30	30	30	28	1	0	0	30	57%	27%
October	23	16	11	3	0	0	29	27	21	13	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A54

Big Creek Upstream of Huntington Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	6	0	0	0	0	0	17	10	5	1	0	0	0	30	8%	17%
July	9	3	0	0	0	0	19	28	22	13	9	3	0	31	78%	54%
August	14	8	5	0	0	0	17	28	26	23	18	6	3	31	17%	19%
Sept	1	0	0	0	0	0	30	4	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	25	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A55

Big Creek Downstream of Dam 1

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	25	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	11	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	30	14	0	0	0	0	0	14	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A56

Big Creek Canyon

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	11	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	2	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	30	0	0	0	0	0	0	14	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A57

Big Creek Upstream of Big Creek Powerhouse 1

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	6	0	0	0	0	0	0	31	21%	2%
June	5	0	0	0	0	0	30	0	0	0	0	0	0	30	8%	17%
July	2	0	0	0	0	0	31	9	2	0	0	0	0	31	78%	54%
August	7	4	0	0	0	0	31	4	1	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	26	0	0	0	0	0	0	30	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A58

Big Creek Downstream of Dam 4

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	4	2	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	10	14	9	1	0	0	0	30	8%	17%
July	1	0	0	0	0	0	31	31	31	17	3	0	0	31	78%	54%
August	6	1	0	0	0	0	31	31	27	14	3	0	0	31	17%	19%
Sept	1	0	0	0	0	0	30	19	5	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	31	3	0	0	0	0	0	30	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A59

Big Creek Upstream of Balsam Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	6	8	3	2	0	0	0	31	21%	2%
June	0	0	0	0	0	0	30	24	23	16	14	7	3	30	8%	17%
July	17	9	6	2	0	0	31	31	31	31	31	31	18	31	78%	54%
August	20	11	6	3	0	0	31	31	31	31	29	24	18	31	17%	19%
Sept	1	0	0	0	0	0	5	26	16	11	5	0	0	30	57%	27%
October	0	0	0	0	0	0	26	5	0	0	0	0	0	30	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A60

Big Creek Upstream of Big Creek Powerhouse 2

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	6	9	5	3	0	0	0	31	21%	2%
June	1	1	0	0	0	0	30	25	24	20	4	0	0	30	8%	17%
July	26	20	11	4	1	0	31	31	31	28	16	7	0	31	78%	54%
August	31	26	13	6	1	0	31	31	31	29	20	10	2	31	17%	19%
Sept	12	7	0	0	0	0	30	24	11	5	1	0	0	30	57%	27%
October	0	0	0	0	0	0	26	4	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A61

Big Creek Downstream of Dam 5

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	3	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	17	6	1	0	0	0	30	21	9	0	0	0	0	30	57%	27%
October	20	8	1	0	0	0	26	19	7	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A62

Big Creek Upstream of Big Creek Powerhouse 8

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	19	16	7	4	0	0	31	21%	2%
June	10	10	10	9	4	0	10	30	27	22	8	3	0	30	8%	17%
July	28	25	16	2	0	0	31	31	31	31	31	18	7	31	78%	54%
August	31	31	22	11	3	0	31	31	31	31	27	19	4	31	17%	19%
Sept	18	9	5	0	0	0	22	30	27	14	5	1	0	30	57%	27%
October	0	0	0	0	0	0	0	6	5	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A63

Rancheria Creek Upstream of Huntington Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	11	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	25	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A64

Potter Creek Upstream of Huntington Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	11	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	19	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	25	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A65

Coon Creek Upstream of Huntington Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	17	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	25	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A66

Line Creek Upstream of Huntington Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	25	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	13	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	14	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A67

Home Camp Creek Upstream of Huntington Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	25	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	2	0	0	0	0	0	31	78%	54%
August	1	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	25	0	0	0	0	0	0	14	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A68

Pitman Conduit Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	8	2	0	0	0	0	17	4	0	0	0	0	0	30	8%	17%
July	22	7	2	0	0	0	31	22	11	5	2	0	0	31	78%	54%
August	16	9	6	1	0	0	31	19	9	4	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	30	0	0	0	0	0	0	26	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A69

Pitman Creek Upstream of Big Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	3	3	0	0	0	0	3	1	0	0	0	0	0	30	8%	17%
July	5	1	0	0	0	0	31	16	11	2	0	0	0	31	78%	54%
August	15	8	5	0	0	0	31	27	17	4	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	5	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	26	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A70

Balsam Creek Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2002 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *		
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**	**2002**
May	0	0	0	0	0	0	6	0	0	0	0	0	0	31	0	0	0	0	0	0	7	21%	2%	70%
June	2	0	0	0	0	0	30	0	0	0	0	0	0	30	0	0	0	0	0	0	30	8%	17%	19%
July	0	0	0	0	0	0	19	3	0	0	0	0	0	31	11	4	0	0	0	0	31	78%	54%	13%
August	0	0	0	0	0	0	16	1	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%	70%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	0	0	0	0	0	0	30	58%	27%	31%
October	0	0	0	0	0	0	26	0	0	0	0	0	0	30	0	0	0	0	0	0	29	83%	8%	52%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A71

Balsam Creek Upstream of Big Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2002 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *		
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**	**2002**
May	0	0	0	0	0	0	6	0	0	0	0	0	0	31	0	0	0	0	0	0	7	21%	2%	70%
June	9	2	0	0	0	0	30	0	0	0	0	0	0	30	8	1	0	0	0	0	30	8%	17%	19%
July	2	1	0	0	0	0	31	13	9	2	0	0	0	31	31	22	7	3	0	0	31	78%	54%	13%
August	7	5	2	0	0	0	31	11	3	0	0	0	0	31	11	2	0	0	0	0	31	17%	19%	70%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	0	0	0	0	0	0	30	58%	27%	31%
October	0	0	0	0	0	0	26	0	0	0	0	0	0	30	0	0	0	0	0	0	29	83%	8%	52%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A72
Ely Creek Diversion

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	6	0	0	0	0	0	0	31	21%	2%
June	9	0	0	0	0	0	30	0	0	0	0	0	0	30	8%	17%
July	2	1	0	0	0	0	31	16	8	3	0	0	0	31	78%	54%
August	8	6	4	0	0	0	31	3	0	0	0	0	0	5	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	26	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A73
Ely Creek Upstream of Big Creek

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	3	0	0	0	0	0	3	0	0	0	0	0	0	30	8%	17%
July	7	1	0	0	0	0	31	15	7	0	0	0	0	31	78%	54%
August	16	7	4	0	0	0	31	14	11	4	0	0	0	17	17%	19%
Sept	0	0	0	0	0	0	30	6	3	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	26	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A74
Stevenson Creek Upstream of Shaver Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	11	0	0	0	0	0	0	0	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	21	78%	54%
August	6	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	25	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A75

Stevenson Creek Upstream of San Joaquin River

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	11	6	1	0	0	0	31	21%	2%
June	10	8	3	0	0	0	10	13	6	1	0	0	0	30	8%	17%
July	23	16	2	1	0	0	31	30	19	14	9	6	0	31	78%	54%
August	21	13	8	5	3	0	31	28	24	11	2	0	0	31	17%	19%
Sept	7	3	0	0	0	0	30	6	3	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	28	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A76

North Fork Stevenson Creek Downstream of Tunnel 7

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	30	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	6	0	0	0	0	0	31	17%	19%
Sept	5	0	0	0	0	0	30	27	19	0	0	0	0	27	57%	27%
October	0	0	0	0	0	0	25	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A77

North Fork Stevenson Creek Upstream of Shaver Lake

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	17	9	1	0	0	0	30	3	0	0	0	0	0	30	8%	17%
July	21	4	0	0	0	0	31	14	6	0	0	0	0	31	78%	54%
August	16	8	2	0	0	0	31	24	9	1	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	4	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	25	0	0	0	0	0	0	26	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A78

Stevenson Creek Downstream of Shaver Dam

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	30	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	31	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	31	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	0	0	0	0	0	0	30	57%	27%
October	14	0	0	0	0	0	26	13	0	0	0	0	0	26	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-A79

Stevenson Creek at Railroad Grade Road

	Number of Days in 2000 Daily Mean Water Temperature Exceeds:						Days Monitored	Number of Days in 2001 Daily Mean Water Temperature Exceeds:						Days Monitored	Air Temperature Exceedance *	
Month	**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**15°C**	**16°C**	**17°C**	**18°C**	**19°C**	**20°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	3	0	0	0	0	0	22	1	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	19	13	3	0	0	0	0	31	78%	54%
August	2	0	0	0	0	0	21	15	1	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	30	2	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	28	0	0	0	0	0	0	30	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

APPENDIX H

Number Of Days Exceeding Each Of A Range of Temperatures

SECTION B

Daily Maximum Temperatures

Appendix H Table H-B1

Boulder Creek Upstream of Florence Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	30	8%	17%
July	14	8	1	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	12	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B2

SFSJR Upstream of Florence Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	17	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	4	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	13	57%	27%
October	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B3

South Fork San Joaquin River Downstream of Florence Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	24	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B4

South Fork San Joaquin River Downstream of Jackass Meadow

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B5

South Fork San Joaquin River Upstream of Hooper Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B6

South Fork San Joaquin River Upstream of Crater Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	18	1	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	2	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	6	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B7

South Fork San Joaquin River Upstream of Bear Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	14	3	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	3	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B8

South Fork San Joaquin River Upstream of Mono Hot Springs

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	29	1	0	0	0	0	0	0	3	8%	17%
July	0	0	0	0	0	0	0	31	5	0	0	0	0	0	0	31	78%	54%
August	1	0	0	0	0	0	0	31	9	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	27	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B9

South Fork San Joaquin River Upstream of Camp 62 Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	0	29	9	3	0	0	0	0	0	30	8%	17%
July	2	0	0	0	0	0	0	31	11	4	0	0	0	0	0	31	78%	54%
August	2	0	0	0	0	0	0	31	22	7	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B10

South Fork San Joaquin River Upstream of Bolsillo Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	0	29	8	3	0	0	0	0	0	30	8%	17%
July	1	0	0	0	0	0	0	31	11	5	0	0	0	0	0	31	78%	54%
August	1	0	0	0	0	0	0	31	22	4	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B11

South Fork San Joaquin River Upstream of Camp 61 Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	9	21%	2%
June	0	0	0	0	0	0	0	4	25	16	8	3	0	0	0	30	8%	17%
July	22	13	0	0	0	0	0	31	21	16	10	5	0	0	0	25	78%	54%
August	13	5	0	0	0	0	0	31	29	25	19	6	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	2	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B12

South Fork San Joaquin River Upstream of Mono Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	9	21%	2%
June	0	0	0	0	0	0	0	4	27	20	9	3	0	0	0	30	8%	17%
July	23	19	1	0	0	0	0	31	26	20	11	5	0	0	0	31	78%	54%
August	18	7	3	0	0	0	0	31	29	26	19	4	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	3	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B13

South Fork San Joaquin River Upstream of Warm Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	18	8%	17%
July	0	0	0	0	0	0	0	0	13	2	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	0	23	4	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B14

South Fork San Joaquin River Upstream of Rattlesnake Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	4	5	0	0	0	0	0	0	30	8%	17%
July	1	0	0	0	0	0	0	31	13	2	1	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	13	21	6	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B15

South Fork San Joaquin River Upstream of Hoffman Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	0	10	3	0	0	0	0	0	31	78%	54%
August	1	0	0	0	0	0	0	24	23	5	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	25	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B16

South Fork San Joaquin River Upstream of San Joaquin River Confluence

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	0	30	12	6	0	0	0	0	31	78%	54%
August	12	0	0	0	0	0	0	22	26	22	9	1	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	3	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B17

Tombstone Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	16	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B18

South Slide Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	23	78%	54%
August	1	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B19

North Slide Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B20

Hooper Creek Upstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B21

Hooper Creek Downstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B22

Hooper Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B23

Hooper Creek Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B24

Crater Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	27	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B25

Crater Diversion Inflow to Florence Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	28	3	3	2	2	1	1	0	26	78%	54%
August	7	6	1	0	0	0	0	17	0	0	0	0	0	0	0	0	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B26

Crater Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	23	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	22	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B27

Bear Creek Upstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	20	8%	17%
July	0	0	0	0	0	0	0	31	1	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	24	6	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	26	57%	27%
October	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B28

Bear Creek Downstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	8%	17%
July	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B29

Bear Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B30

Bear Creek Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	20	8%	17%
July	0	0	0	0	0	0	0	31	1	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	18	2	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	11	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B31

Camp 62 Creek Upstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	21%	2%
June	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B32

Camp 62 Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B33

Chinquapin Creek Upstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	21%	2%
June	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B34

Bolsillo Creek Upstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	21%	2%
June	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	13	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B35

Bolsillo Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B36

Mono Creek Upstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	20	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	10	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B37

Mono Creek Downstream of Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	20	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	3	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	20	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B38

Mono Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	21%	2%
June	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	23	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B39

Mono Creek Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	20	8%	17%
July	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	11	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B40

Warm Creek Upstream of South Fork San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	21%	2%
June	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	21	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	11	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B41

San Joaquin River Upstream of South Fork San Joaquin Confluence

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	22	11	1	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B42

San Joaquin River Upstream of Mammoth Pool

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	8%	17%
July	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	0	21	4	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	16	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B43

San Joaquin River Downstream of Mammoth Pool

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	1	0	0	0	0	0	0	15	0	0	0	0	0	0	0	25	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	4	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	1	0	0	0	0	0	0	30	26	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	28	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B44

San Joaquin River Upstream of Rock Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	0	0	0	0	0	0	0	5	9	2	0	0	0	0	0	24	8%	17%
July	11	2	0	0	0	0	0	25	7	0	0	0	0	0	0	31	78%	54%
August	13	5	1	0	0	0	0	31	17	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	7	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	19	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B45

San Joaquin River Upstream of Ross Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	31	21%	2%
June	3	3	0	0	0	0	0	3	26	23	16	6	2	0	0	30	8%	17%
July	25	22	11	2	0	0	0	25	31	31	28	13	4	0	0	31	78%	54%
August	31	27	20	8	4	0	0	31	31	27	26	13	2	0	0	31	17%	19%
Sept	9	5	0	0	0	0	0	30	22	6	4	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B46

San Joaquin River Upstream of Mammoth Pool Powerhouse

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	31	21%	2%
June	3	1	0	0	0	0	0	3	26	21	14	5	0	0	0	30	8%	17%
July	5	5	2	1	1	1	1	5	31	31	21	12	2	0	0	31	78%	54%
August	14	14	10	2	1	0	0	14	31	27	25	9	1	0	0	31	17%	19%
Sept	11	3	1	0	0	0	0	15	18	5	2	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B47

Rock Creek Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	11	1	0	0	0	0	0	15	3	0	0	0	0	0	0	29	8%	17%
July	2	1	0	0	0	0	0	31	7	6	2	0	0	0	0	7	78%	54%
August	10	5	0	0	0	0	0	31	27	19	7	1	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	1	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	12	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B48

Rock Creek Upstream of San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21%	2%
June	15	6	0	0	0	0	0	15	21	18	15	5	0	0	0	24	8%	17%
July	15	1	0	0	0	0	0	31	31	23	9	3	0	0	0	31	78%	54%
August	7	6	1	0	0	0	0	31	23	9	2	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	1	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	28	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B49

Ross Creek Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	11	7	6	0	0	0	0	31	21%	2%
June	9	9	9	3	0	0	0	9	27	25	19	11	7	3	1	30	8%	17%
July	29	25	21	14	5	2	0	31	24	24	24	17	11	5	1	24	78%	54%
August	31	30	27	20	10	2	0	31	0	0	0	0	0	0	0	0	17%	19%
Sept	1	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B50

Ross Creek Upstream of San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	26	26	21	19	17	14	12	31	21%	2%
June	0	0	0	0	0	0	0	9	30	30	30	29	29	29	27	30	8%	17%
July	0	0	0	0	0	0	0	2	17	17	17	16	14	11	11	17	78%	54%
August	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B51

San Joaquin River Downstream of Dam 6

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B52

San Joaquin River Upstream of Stevenson Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	7	20	14	7	2	0	0	0	30	8%	17%
July	8	3	0	0	0	0	0	21	31	31	31	18	3	0	0	31	78%	54%
August	12	4	0	0	0	0	0	31	31	29	25	10	0	0	0	31	17%	19%
Sept	4	0	0	0	0	0	0	30	19	7	2	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B53

San Joaquin River Downstream of Big Creek Powerhouse 3

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	1	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B54

Big Creek Upstream of Huntington Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	17	11	8	6	2	1	0	0	30	8%	17%
July	8	4	0	0	0	0	0	19	26	24	23	22	16	11	8	31	78%	54%
August	14	13	6	4	0	0	0	17	31	31	31	31	31	31	31	31	17%	19%
Sept	0	0	0	0	0	0	0	30	13	13	13	12	12	11	11	30	57%	27%
October	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B55

Big Creek Downstream of Dam 1

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	14	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B56

Big Creek Canyon

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	14	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B57

Big Creek Upstream of Big Creek Powerhouse 1

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	30	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B58

Big Creek Downstream of Dam 4

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	3	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	30	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B59

Big Creek Upstream of Balsam Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	30	15	8	3	0	0	0	0	30	8%	17%
July	2	0	0	0	0	0	0	31	31	27	16	6	2	0	0	31	78%	54%
August	1	0	0	0	0	0	0	31	25	19	11	3	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	30	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B60

Big Creek Upstream of Big Creek Powerhouse 2

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	30	4	0	0	0	0	0	0	30	8%	17%
July	7	1	0	0	0	0	0	31	15	8	0	0	0	0	0	31	78%	54%
August	7	1	1	0	0	0	0	31	16	6	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B61

Big Creek Downstream of Dam 5

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B62

Big Creek Upstream of Big Creek Powerhouse 8

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	31	21%	2%
June	9	7	0	0	0	0	0	10	17	5	1	0	0	0	0	30	8%	17%
July	2	0	0	0	0	0	0	31	31	21	13	2	0	0	0	31	78%	54%
August	9	3	0	0	0	0	0	31	27	25	10	2	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	22	5	3	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B63

Rancheria Creek Upstream of Huntington Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B64

Potter Creek Upstream of Huntington Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B65

Coon Creek Upstream of Huntington Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	24	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B66

Line Creek Upstream of Huntington Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B67

Home Camp Creek Upstream of Huntington Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	30	8%	17%
July	4	1	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	14	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B68

Pitman Conduit Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	21%	2%
June	2	0	0	0	0	0	0	17	0	0	0	0	0	0	0	30	8%	17%
July	4	2	0	0	0	0	0	31	11	3	0	0	0	0	0	31	78%	54%
August	13	6	1	0	0	0	0	31	14	7	1	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	26	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B69

Pitman Creek Upstream of Big Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B70

Balsam Creek Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded					Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:					Days Monitored	Number of Days in 2002 Maximum Water Temperature Recorded Exceeds:					Days Monitored	Air Temperature Exceedance *		
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**		**2000**	**2001**	**2002**
May	0	0	0	0	0	6	0	0	0	0	0	31	0	0	0	0	0	7	21%	2%	70%
June	0	0	0	0	0	30	0	0	0	0	0	30	0	0	0	0	0	30	8%	17%	19%
July	0	0	0	0	0	19	0	0	0	0	0	31	0	0	0	0	0	31	78%	54%	13%
August	0	0	0	0	0	16	0	0	0	0	0	31	0	0	0	0	0	31	17%	19%	70%
Sept	0	0	0	0	0	30	0	0	0	0	0	30	0	0	0	0	0	30	58%	27%	31%
October	0	0	0	0	0	26	0	0	0	0	0	30	0	0	0	0	0	29	83%	8%	52%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B71

Balsam Creek Upstream of Big Creek

	Number of Days in 2000 Maximum Water Temperature Recorded					Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:					Days Monitored	Number of Days in 2002 Maximum Water Temperature Recorded Exceeds:					Days Monitored	Air Temperature Exceedance *		
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**		**2000**	**2001**	**2002**
May	0	0	0	0	0	6	0	0	0	0	0	31	0	0	0	0	0	7	21%	2%	70%
June	0	0	0	0	0	30	0	0	0	0	0	30	1	0	0	0	0	30	8%	17%	19%
July	0	0	0	0	0	31	1	0	0	0	0	31	15	4	0	0	0	31	78%	54%	13%
August	0	0	0	0	0	31	0	0	0	0	0	31	0	0	0	0	0	31	17%	19%	70%
Sept	0	0	0	0	0	30	0	0	0	0	0	30	0	0	0	0	0	30	58%	27%	31%
October	0	0	0	0	0	26	0	0	0	0	0	30	0	0	0	0	0	29	83%	8%	52%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2002)

Appendix H Table H-B72

Ely Creek Diversion

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	5	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B73

Ely Creek Upstream of Big Creek

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	1	1	0	0	0	0	0	31	78%	54%
August	3	0	0	0	0	0	0	31	10	9	8	4	3	2	0	17	17%	19%
Sept	0	0	0	0	0	0	0	30	7	6	5	2	1	1	0	30	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B74

Stevenson Creek Upstream of Shaver Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	21%	2%
June	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	21	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B75

Stevenson Creek Upstream of San Joaquin River

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	4	0	0	0	0	0	0	10	1	0	0	0	0	0	0	30	8%	17%
July	1	0	0	0	0	0	0	31	10	5	0	0	0	0	0	31	78%	54%
August	5	2	0	0	0	0	0	31	2	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	31	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B76

North Fork Stevenson Creek Downstream of Tunnel 7

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	27	57%	27%
October	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B77

North Fork Stevenson Creek Upstream of Shaver Lake

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	20°C	21°C	22°C	23°C	24°C	25°C	26°C		20°C	21°C	22°C	23°C	24°C	25°C	26°C		2000	2001
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	12	1	0	0	0	0	0	30	0	0	0	0	0	0	0	30	8%	17%
July	6	0	0	0	0	0	0	31	3	0	0	0	0	0	0	31	78%	54%
August	5	0	0	0	0	0	0	31	4	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	26	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B78

Stevenson Creek Downstream of Shaver Dam

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	26	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

Appendix H Table H-B79

Stevenson Creek at Railroad Grade Road

	Number of Days in 2000 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Number of Days in 2001 Maximum Water Temperature Recorded Exceeds:							Days Monitored	Air Temperature Exceedance *	
Month	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**		**2000**	**2001**
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21%	2%
June	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	30	8%	17%
July	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	31	78%	54%
August	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	31	17%	19%
Sept	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	57%	27%
October	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	30	82%	8%

* Historical North Fork Monthly Air Temperature Exceedance Percentages (1948-2001)

APPENDIX I

WARM CREEK TEMPERATURE RESULTS

APPENDIX I – WARM CREEK

The following information regarding Warm Creek is summarized from Section 2.4 of the Vermilion Valley Hydroelectric Project (FERC Project No. 2086) Final Application For A New License For Minor Project – Existing Dam (SCE, 2003a) and from Section 4.3 of the Vermilion Valley Hydroelectric Project (FERC Project No. 2086) Final Supplemental Study Report Completed In Support Of Final Application For A New License (SCE, 2003b).

Warm Creek is characterized by having a small, relatively steep upper watershed and low base flow. For most of the year the base flow is about 0.2 cfs or less. During the annual run-off period, though, flows can reach up to 40 cfs or more. This run-off period is brief. During run-off, water may be diverted through the Warm Creek Diversion Channel into Boggy Meadow Creek and subsequently into Lake Edison. The diversion from Warm Creek is stopped prior to reaching the minimum instream flow release of 0.2 cfs.

Water was not diverted to Lake Edison during 2000, and therefore, water temperature data do not indicate the effects of Project diversion for that period. The average monthly water temperatures for the stream temperature monitoring stations downstream of the diversion and upstream of the confluence with the South Fork San Joaquin River are presented in Table CAWG 5 Appendix I-1 and Figure CAWG 5 Appendix I-1. These monthly temperatures ranged from 9.2°C to 8.9°C for June through August 2000. Mean monthly water temperature decreased from September (7.1°C) through November (1.6°C) of 2000. The mean monthly water temperatures rose 2.3 to 2.9°C under natural flow (undiverted) conditions between Warm Creek Diversion and the reach located just upstream of the South Fork San Joaquin River during the months of June through September of 2000.

Water was diverted from Warm Creek through the Warm Creek Diversion Channel to Boggy Meadow Creek to Lake Edison from May 14 through June 12, 2001. The average monthly water temperatures upstream of the Warm Creek diversion ranged from 8.7°C for June 2001 to 9.4°C in August 2001 (Figure CAWG 5 Appendix I-2 and Table CAWG 5 Appendix I-1) and 6.6°C during October 2001. The maximum hourly temperature recorded occurred during August 2001 and was 13.1°C. The average monthly water temperatures downstream of the Warm Creek diversion were very similar to those recorded upstream and ranged from 8.8°C for June 2001 up to 9.5°C for August 2001 and down to 6.6°C in October. The maximum temperature recorded was 13.0°C during August 2001, a period when flow was not diverted (measured difference of 0.04°C from station upstream, which is within the measurement uncertainty of the unit). Daily average temperatures upstream and immediately downstream of the Warm Creek diversion were similar, with temperatures downstream of the diversion generally averaging 0.1°C warmer than upstream (Table CAWG 5 Appendix I-1).

Table CAWG 5 Appendix I-1. Monthly Mean, Maximum, and Minimum Water Temperatures for Warm Creek.

Month	Warm Creek Downstream of Diversion			Warm Creek Upstream of Diversion			Warm Creek Upstream of SFSJR		
	Mean[1] (°C)	Maximum[2] (°C)	Minimum[3] (°C)	Mean[1] (°C)	Maximum[2] (°C)	Minimum[3] (°C)	Mean[1] (°C)	Maximum[2] (°C)	Minimum[3] (°C)
June, 2000	9.2	11.5	7.3	-[4]	-	-	11.6[5]	12.7	10.7
July, 2000	8.9	11.2	7.1	-[4]	-	-	11.2	12.2	9.8
August, 2000	9.0	11.1	7.5	-[4]	-	-	11.9	12.8	10.8
September, 2000	7.1	9.0	5.6	-[4]	-	-	9.2	10.1	8.0
October, 2000	4.2	5.5	3.0	-[4]	-	-	7.4[6]	8.3	6.5
November, 2000	1.6[7]	2.4	0.9	-[4]	-	-	-	-	-
May, 2001	-	-	-	-	-	-	8.3[9]	13.0	2.3
June, 2001	8.8[8]	12.7	5.0	8.7[8]	12.5	5.0	10.8[10]	13.4	7.6
July, 2001	9.1	12.9	6.2	9.1	12.9	6.3	11.8	14.1	9.3
August, 2001	9.5	13.0	6.1	9.4	13.1	6.1	12.8	14.8	10.3
September, 2001	7.8	10.9	5.3	7.7	10.9	5.3	10.6	12.9	8.1
October, 2001	6.6[11]	9.6	3.4	6.6[11]	9.5	3.5	8.9[11]	11.2	5.9

[1] Monthly averages are averaged daily averages
[2] Maximum temperature observed during month
[3] Minimum temperature observed during month
[4] Data was not recorded, since water was not diverted in 2000
[5] 5 day average due to start of monitoring
[6] 12 day average due to end of monitoring
[7] 8 day average due to end of monitoring
[8] 26 day average due to end of monitoring
[9] 23 day average only; temperature monitor placed at site over the winter reached memory capacity
[10] 21 day average only; over-winter temperature monitor at the site was replaced
[11] 11 day average due to end of monitoring

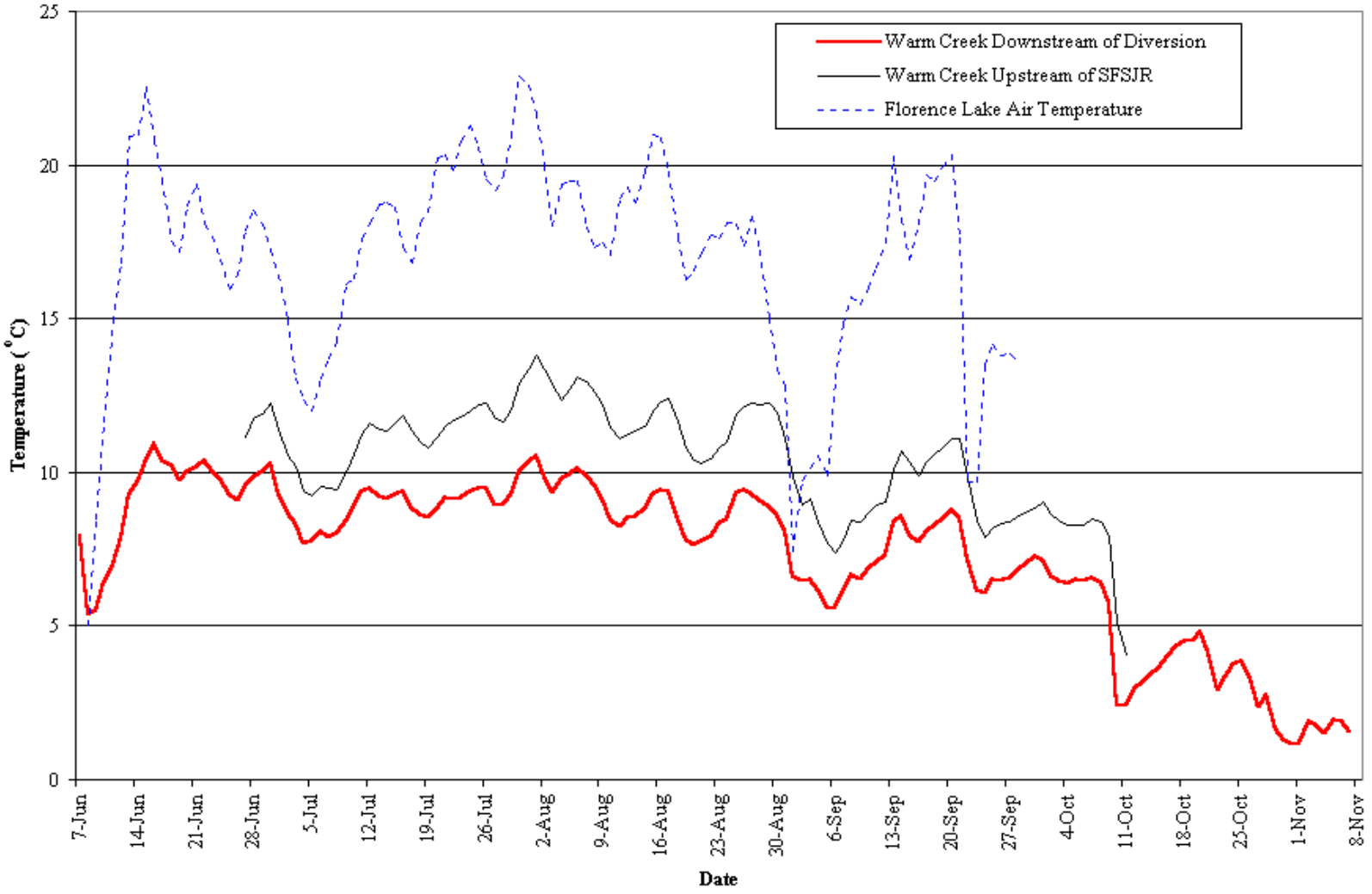

Figure CAWG 5 Appendix I-1. Daily Average Air Temperatures at Florence Lake and Water Temperatures Recorded in Warm Creek, 2000. Note: Warm Creek was not diverted during 2000.

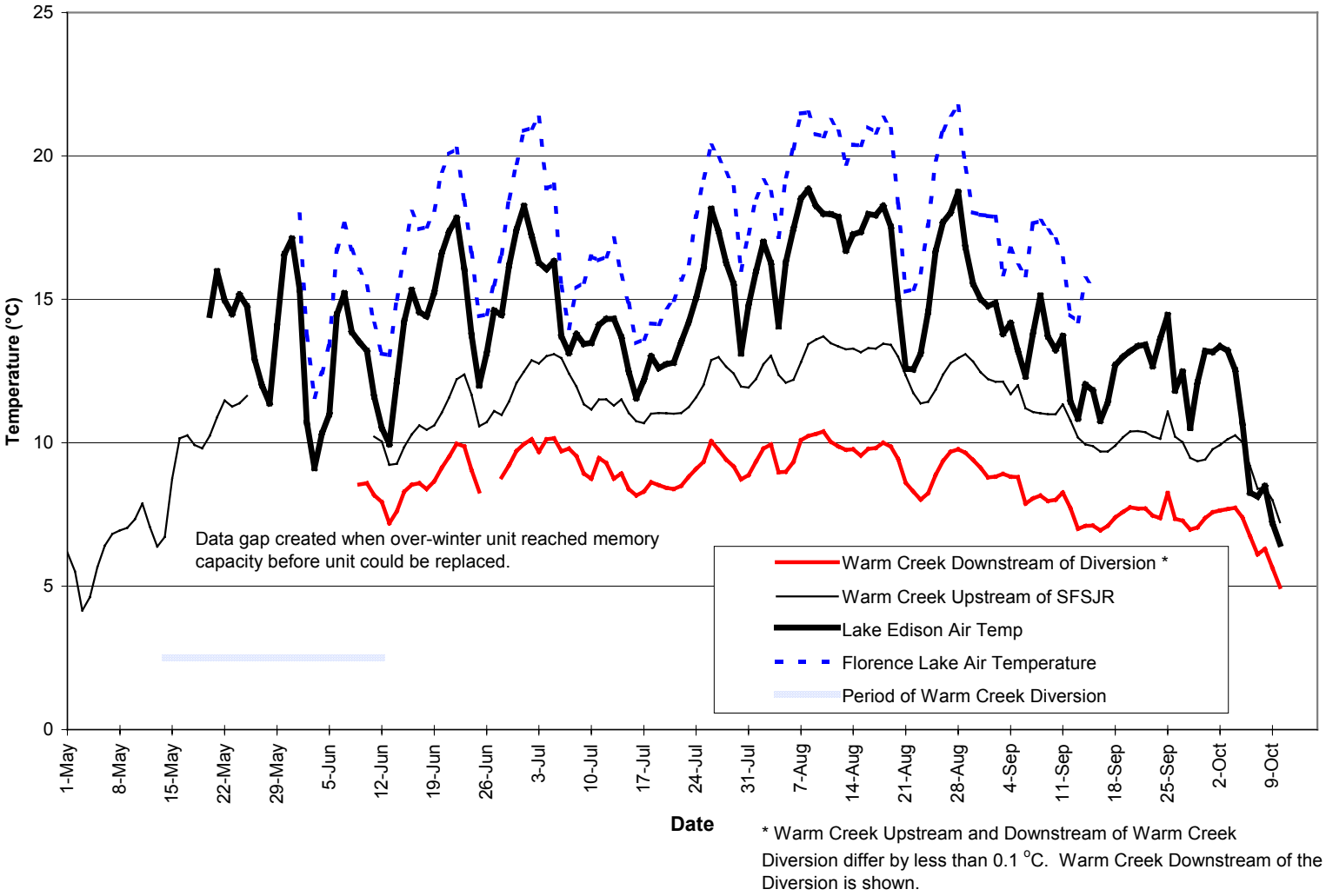

Figure CAWG 5 Appendix I-2. Daily Average Water Temperatures Recorded in Warm and Boggy Meadow Creeks, 2001.

The most downstream temperature monitoring location on Warm Creek was located upstream of the confluence of the South Fork San Joaquin River. Average monthly water temperatures for this location ranged from 8.3°C during May 2001 up to 12.8°C during August 2001 and down to 8.9°C during October 2001. The maximum temperature recorded was 14.8°C, which occurred during August 2001. Mean monthly water temperatures just upstream of the confluence with the South Fork San Joaquin River were 2.2 to 3.3°C warmer than temperatures recorded at Warm Creek upstream of the Warm Creek diversion, during 2001. The increase in water temperatures monitored in Warm Creek upstream of the diversion and near the South Fork San Joaquin River reflected the influence of air temperatures and to a lesser extent solar radiation.

The largest increase in average monthly temperature occurred after diversion of flow had ceased for the year. Throughout the summer, on a daily basis, the temperature increased an average of 2.8°C (ranging from 1.6°C to 3.75°C) regardless of diversion operation.

References Cited

Southern California Edison (SCE). 2001a. Vermilion Valley Hydroelectric Project (FERC Project No. 2086) Final Application for New License for Minor Project-Existing Dam. Volume 2 of 4: Exhibit E. Southern California Edison, Big Creek, California.

_____. 2001b. Vermilion Valley Hydroelectric Project (FERC Project No. 2086) Additional Studies Completed in Support of Final Application for a New License. November, 2001. Southern California Edison, Big Creek, California.

APPENDIX J

CONSULTATION DOCUMENTATION

Agenda
Big Creek Aquatic Group

October 6, 2000, 9:00 a.m.

Teleconference Call-in number: 1-800-569-0883
Tell Operator: SCE Aquatic Working Group Call
Moderator: Wayne Lifton

We will cover the following topics, as time allows. Items not covered should roll over to our October 12 meeting.

- Discuss existing information
    - IIP
    - Initial Information gathering data
    - Other available information (including agency and other data)
    - Identification of potential data gaps
- Discuss working group steps from last Plenary as they apply to Aquatic Working Group
- Identify the types of information needed to work through Project Nexus Matrix approach presented by Wayne Lifton at the September Plenary
- Identify preliminary aquatic resources as targets for analysis
- Discuss locations of aquatic resources
- Discuss how different Project components may affect target resources
- Preliminary discussion of study plan objectives
- Discuss coordination with other working groups with respect to riparian, amphibian, water temperature, water quality, and sediment issues

- Develop a list of questions related to operations and maintenance for Steve Rowan's Presentation to Plenary to identify potential Project effects

- Discuss schedule for October 12 working group meeting

    - Items not covered during this call

    - Schedule for Working Group

    - Working Group assignments

    - Schedule for product development

Big Creek ALP Aquatic Working Group Conference Call
October 6, 2000

On conference call: Wayne Lifton (ENTRIX), Ed Bianchi (ENTRIX), Russ Kanz (SWRQB), Sharon Stohrer (SWRQB), Chuck Bonham (TU), Anna West (Kearns and West), Julie Means (CDFG), Phil Strand (USFS; notetaker)

Data gaps and needs

May be additional amphibian data available:
* USFS has records in addition to CNDDB
* John Kleinfelter of CDFG has a database that combines CDFG and USFS records and surveys
* Ann Carlson (Tahoe NF) may have info on MYLF locations due to her involvement with Conservation Plan for the species.
* The IIP lists relictual salamanders, which due to recent taxonomic changes do not occur on the Forest. The Kings River slender salamander does not occur on the Forest.
* (***Need to contact John Kleinfelter to get his database into basin records***)

Reptile data: USFS has records for western pond turtle on most tributaries of the San Joaquin River, up to Jackass Creek (Mammoth Pool)

There is also more fish distribution data available in Forest Service stream surveys.
* Holly is breaking out for south side of Forest. Has not been done for North side. Dbase records indicate there was a biological observation, would have to go to field record to establish whether it was a fish.

Lack of involvement by USFWS Endangered Species division: Group remains concerned that USFWS has been chose to get involved in collaborative. Their involvement is critical to assure studies utilize methodologies that will be acceptable to USFWS. ENTRIX has tried to meet with USFWS several times without success. The Sierra NF has sent a letter to their Regional Office expressing concern that USFWS has not gotten involved in process. (***Ed Bianchi will draft letter from collaborative to Wayne White (UFWS) encouraging their involvement with the collaborative)***

Gaps in summary tables (provided by Wayne) may provide quick overview to data gaps
* Might want to add column for macroinvertebrates
* Might want a column for water quality (temp, DO, pH)
* Mollusks? (USFS has no listed or sensitive presently)
* Small creeks: Instream flow issue (***Needs to be discussed with complete group with all resource agencies present***)
* Fish passage and entrainment
* Creel census
* Reservoir survey data (Russ Wickwire (CDFG) should have records)
* CDFG stocking records

Wayne indicated some gaps may develop due to difficulty in positioning temperature monitors in remote streams not part of the Project

Riparian: Requires coordination with terrestrial and geomorphology groups. Items to consider: LWD; vegetation; amphibian species; animals/birds; fish habitat; hydrology/operation models; geomorphology; hyperheic zone; Forest Service land use regulations.

Working group steps from last plenary

* Diversions. There is interest in operations (releases, storage, ramping rates, testing, sediment removal, public safety, and timing of operations)
* Steve Rowan will be presenting this info at upcoming meeting. (***Make a list of other items we would like Steve to address***)
* Unclear whether operations of Big Creek 4, Vermilion, and Portal would be presented (these projects are presently being licensed independent of ALP)

Impact Mechanisms

* Wayne went over example he had provided at last plenary
* Russ will bring example of decision-making process that USFWS is using
* Impacts from recreation due to improved access (***Need to coordinate with recreation group***)

(Group to look at identifying more impact mechanisms)

Identifying preliminary aquatic resources as targets

*Amphibians: USFS sensitive species are foothill yellow-legged frog (FYLF), Yosemite toad, and Mountain yellow-legged frog (MYLF). All of these species occur in basin, but not necessarily in affected reaches. FYLF are in Jose Creek, which enters the San Joaquin River at Powerhouse 3. MYLF and Yosemite toads occur in tributaries to Huntington and Edison Lakes, along with tributaries to the San Joaquin River. California red-legged frog (CRLF) (listed species) are noted in Draft Recovery Plan as occurring to 5000 feet in elevation, which would be the confluence of the North and Middle Forks of the San Joaquin River. The project area is not being considered as Critical Habitat for CRLF under the draft. Base on conversations with Dave Hanson (local herp expert), there is chance that undescribed species of salamanders may occur within the project area. Survey protocols and timing of surveys for salamanders differs from surveys for other amphibian species (typically conducted in Feb, March, early April: especially after warm rain).

* Fish: expect trout to be focus above Mammoth Pool and upstream in most tributaries to the San Joaquin River. Probably be rainbow trout since it is the native species in the basin (brown and brook trout are exotics to California). Different objectives for timing of flows depending on fish species used as management indicator.
    - Native minnows. It is expected that the fish community below Mammoth Pool is a mix of native minnows, suckers, and trout. The transition between trout and native minnows as management indicators will occur below the dam.
    - Reservoirs:
        * Brown trout for Florence and Edison Lakes
        * Huntington has rainbows, kokanee and browns
        * Shaver: has rainbow, brown, kokanee, and smallmouth bass
        **** Julie to check with Dale Mitchell to verify CDFG's desired fish species***
        **** Need to get CDFG reservoir survey records from Russ Wickwire***
        **** Need to ID locational management objectives***

Agenda

Big Creek Water Quality / Geology Working Group

October 12, 2000, 10:00 a.m. to 12:30 p.m.

Piccadilly Inn University
4961 N. Cedar Avenue
Fresno, CA 93726

Teleconference Call-in number: 1-800-569-0883
Tell Operator: SCE Water Quality Working Group Call
Moderator: Steve Rowan

- Approve October 2, 2000 Meeting Summary
- Discuss draft Study Plan Summary Outlines
- Resource Concerns and Questions
- Goals and Objectives from Plenary Matrix
- Set Agenda for next meeting

Meeting Summary
Water Quality / Water Use Work Group
October 12, 2000

Attendees:			
Chuck Bonham		Trout Unlimited	cbonham@tu.org
Jen Carville	(phone)	Friends of the River	jen@friendsoftheriver.org
Jim Fargo		FERC	james.fargo@ferc.fed.us
Rick Hopson		USDA Forest Service	rhopson@fs.fed.us
Toby Horst		Resource Conservation District	easyrider@psnw.com
Russ Kanz		State Water Resources Control Board	rkanz@waterrights.swrcb.ca.gov
Wayne Lifton		Entrix	wlifton@entrix.com
Larry Lockwood		Sierra Access & Multiple-use Stewardship	lclockwood@psnw.com
Julie Means		California Department of Fish and Game	jmeans@dfg2.ca.gov
Bill Pistor		Kearns & West	bpistor@kearnswest.com
Roger W. Robb		Friant Water Users Authority	rwrpbb@yahoo.com
Steve Rowan		Southern California Edison	rowansj@sce.com
Sheldon Sandstrom		Sierra Marina	sheldon@sierramarina.com
Lonnie Schardt		Huntington Lake Association	jlslds@aol.com
Sharon Stohrer	(phone)	SWRCB	sstohrer@waterrights.swrcb.ca.gov
Phil Strand		USFS	pstrand@fs.fed.us
Dan Tormey		Entrix	dtormey@entrix.com
Paul Wisheropp	(phone)	Entrix	pwisheropp@entrix.com

Previous Meeting Summary - The summary for the Water Quality / Water Use Workgroup meeting of 10/2/00 was accepted with one change. Roger Robb stated the name Friant Water Users Association should be changed to Friant Water Users Authority.

Spokesperson - Rick Hopsen will be the spokesperson for this workgroup in the next Plenary Session.

Resource Interest Matrix - The Resources Interest matrix is not yet completed. There are a couple of key areas missing. The matrix will be completed within 10 days.

It was requested to add a 4th column to the matrix titled Study Objectives. Wayne indicated this might be premature. Unless we know the impact mechanism, we may not know what needs to be studied and may miss some key data we require. A 4th column titled Impact Mechanism will be added but not Study Objective.

Socio-Economic Impacts - There was a discussion related to a socio-economic study and how we would relate changes in operations to provide white water recreation flows to socio-economic impacts. It was decided we are still premature to consider the socio-economic impact as no decisions have yet been made. Members of the group want to make sure we get in writing the requirement to study socio-economic effects.

Jim Fargo indicated that usually socio-economic effects are secondary effects with the exception of power loss and flood control value. FERC typically does not use secondary effects in their decisions. Direct economic effects will be addressed in the settlement agreement by those directly affected. If 2nd and 3rd level socio-economic effects data is not needed to make decisions, why worry about collecting the data. Whichever group is affected by a proposed change will analyze the costs to them and bring the information back to the group.

Jim also suggested that if a tool could be developed which can take changes in flow or storage criteria and analyze the economic impact, it would be valuable to the group.

Paul Wisheropp stated a tool exists at the BOR called USAN. It analyzes benefits and costs to downstream users due to reservoir criteria changes. Paul will check into the status of this tool.

Toby indicated the local county is concerned with two impacts. Impacts to irrigation and increases in power costs due to loss of generation.

Water Quality Project Nexus - The following is a first cut of project nexus related to water quality.

Water Quality Potential Project Nexus (Sediment –S, Temperature –T)		
S	T	Diversions, Large & Small
S	T	Tail Races
S		Flow Augmented Channels
S		Cloud Seeding
S	T	Discharge Locations (Point & Non-Point Sources)
S	T	Reservoir
		Areas of Chemical Storage
S		Roads
S		Project Culverts & Bridges
	T	Water Treatment Facilities
S		Campgrounds
S		Housing
S		Boating (Non-Project)
	T	Fish Hatchery
S		Sluicing / Sediment Removal
S		Rock Drops
S		Surge Chamber Discharges
		Non-Project Effects
S		Timber Harvest
S		Grazing
S		Fires
S		Roads
S		Trails
S		Non-Project Culverts & Bridges
S		Tunnel Muck
	T	Tunnels
	T	Riparian Cover
	T	Water Movement Timing

Surface Water Hydrology – Natural Hydrology will need to be synthesized to compare to impaired hydrology. SCE will need to begin working on this soon.

Meeting Schedule - The next meeting will be 10/31 from 1:00 to 3:00 p.m. Rick Hopson will verify the USFS office in Prather can be used. A conference call will be set up for those desiring to call in. The primary focus will be to review the goals and objectives.

Big Creek ALP Aquatic Working Group Meeting Notes

October 31, 2000 Conference Call

Present:
Wayne Lifton (ENTRIX), Steve Rowan (SCE), Russ Kanz (SWRCB), Sharon Stohrer (SWRCB), Anna West (Kearnes and West), Dale Mitchell (CDFG), Julie Means (CDFG), Phil Strand (USFS) and Holly Eddinger (USFS).

Meeting notes recorded by:
Phil Strand

Summary:

Agenda items to be covered

Resource matrix, revised list of potential project impact mechanisms, management goals and objectives, other types of information needed to work through project nexus, target resources, study plan objectives, schedule for working group

Matrix:

Steve has not completed the matrix. It is about 99 percent complete, but requires SCE review prior to release. It will not be available until early next week. Steve will email out Monday or Tuesday and bring hard copied to the Plenary.

Project Impact Mechanisms

The group discussed the Project Impact Mechanisms outline provided by W. Lifton.

Reservoirs.

* Water Levels. Quantity of habitat more relevant, rather than spawning and rearing habitat.
* Sedimentation of reservoirs should include smaller diversions.
* Add rate and timing of change in lake levels and overwintering habitat.
* Substrate composition may important in small diversions. Layer of deposited sand could impact mountain yellow-legged frog tadpoles.

- Spawning and rearing habitat will cover a multiplicity of species.
-

Wayne Lifton believes he incorporated items identified during the October Working Group meeting and will incorporate the items discussed during today's call.

Management Goals and Objectives: Consolidation of input received from all stakeholders is represented in an integrated format in the matrix sent to the Plenary. Input from California Department of Fish and Game has been included. Aquatic Goals and Objectives may change based on results of the studies. The group confirmed that the Goals and Objectives for the Forest Service and Fish and Game have been adequately captured during the discussion.

Angling: Discussion of whether this item would be covered by the Aquatics Working Group or Recreation. Based on current approach, it will be covered primarily under Recreation. However, addressing these Goals and Objectives will need coordination with the Aquatic Working Group.

Amphibians: At this point, addressing this group is being handled under the Terrestrial Working Group (TWG). Some group members believed it would be better covered under the Aquatics Working Group. Limiting mechanisms for this group are probably more in the aquatic life stage, than in the terrestrial. Western pond turtle will disperse further from the aquatic/riparian ecosystem and could be covered by the Terrestrial Wildlife Working Group.

** Will require coordination with terrestrial. Group needs to review Wildlife Impacts Matrix. Also, look at the Wildlife Management Goals and Objectives. The AWG should provide input to Wayne.*

Riparian breakout: No meeting scheduled. May need to convene after Plenary or schedule a conference call. *Wayne* will touch base with Janelle before the next Plenary.

Conflicting objectives: Question arose regarding resolution of conflicting objectives. Studies will still be conducted and information should help clarify the objectives. Group's next step is the mechanisms matrix to clarify study objectives. There may be some areas where investigations that are more intensive are necessary.

** It would helpful to get a larger (font) version of matrix that Steve had presented to the Plenary.*

Information dissemination

Both Forest Service and Fish and Game have had trouble downloading or opening documents. *Wayne* will reduce the number of attachments/email. *Julie* will provide Wayne with a format that Fish and Game computers can handle. This item needs to be resolved quickly to support a good administrative record for the project.

Subsequent discussion with Julie Means identified that MS Word documents, principally tables sent out by Kearnes & West are largely unreadable in Word Perfect. Adobe Acrobat documents sent to AWG **are** readable.

**Wayne* will discuss the necessity of sending Acrobat versions of all documents to all participants.

Target Resources

Species and communities: Will require life histories for species and impact mechanism from project effects. General discussion of approach and specific resources.

* Trout in upper basin. There are a number of trout species present in the upper basin including rainbow, brown, brook, and hybrid golden trout. Rainbow or brown trout are the most important. Brown trout are non-native. Brown trout are not likely a target species, except in reservoirs. May end up using amphibians as

targets in some portions of the basin, depending on what is found during the studies.

* Some members of the group suggested that it would be better to look at ecosystem as a whole, rather than individual species. Species other than fish may provide indications of ecosystem health, such as mussels or mollusks for water quality. Target species can be used as Management Indicator Species (MIS), but difficult to translate to project nexus. Can't single out species without considering effects on ecosystem. Need to preface MIS with other ecosystem components. Need to examine a matrix of species and life stage, rather than just one species when evaluating Project effects.

* It was suggested that it would be useful to look at native species as though they have special status. Can be difficult for some species that lack life history information. Need to identify indicators of ecosystem quality. When and where to be looking.

*It was suggested that a resource target could be to mimic the natural hydrograph: Mokelumne study lacked basic information on biology, such as fish spawning and water temperature.

- Need to exercise caution in assumptions of natural hydrograph. Some species would not benefit by that flow regime every year. Dale noted that juvenile hardhead would not benefit from high annual flows. The species has high fecundity to take advantage of good (dry water years) conditions. Reservoirs and diversions have affected the ecosystem. Tradeoffs will be made that will reverberate throughout the remainder of the community.
- Encompass guilds. Different spawning needs for each species and different nursery habitat requirements. Magnitude and timing of hydrograph may be most important for availability of habitat. Hydraulic simulation would need huge number of curves, by species, by season. Requires choices on amount of water and temperature regime. We will look at different species at different parts of the basin.

Lower Basin: hardhead, rainbow trout (possibly of anadromous lineage), pikeminnow, suckers, sculpins, and centrarchids. Dale thinks CDFG may be able to get genetic work done on rainbow trout to determine integrity of stock.

* Roach, hitch, and brook lamprey have been part of system in the past, but are now apparently absent.

* Herpetofauna.

- Western pond turtle need to be accounted for as they occur in the lower basin up to about 4,500 feet. Many tributary streams have turtles.
- The lower basin also has a very important population of foothill yellow-legged frogs. This population is geographically significant as it represents one of the southern most remaining populations of the species.
- While the project is not within proposed critical habitat for the California red-legged frog, it is within the recovery plan. A habitat assessment is presently required.
- Salamanders: There could be undescribed species within the San Joaquin drainage.

Reservoirs

* **Mammoth Pool:** Rainbow, brown and some eastern brook trout. Golden shiners present, would be nice to eliminate. Golden shiners would need to be considered from standpoint of whether Project operations could be used to contain this species. Golden shiners also occur in Mud Lake (Pineridge) adjacent to OHV route. Shiners are prey for larger trout, but competitors with fry. Sacramento suckers also in Mammoth Pool. Unclear whether they occurred there historically. Moyle believes anadromous fish passage was unlikely above Mammoth Pool. State fisheries report from 1913 indicates that Sierra was considered fishless above 5000 feet (prior to stocking). 5000 feet elevation would be confluence of North and Middle Forks San Joaquin River. Brewer reports soldiers catching trout in 1864 from what may have been the Middle Fork of the San Joaquin River.

***Lake Edison:** Rainbow, Kamloops strain rainbow, brown, eastern brook, and golden (hybrid) trout. Fish surveys this past fall indicate some rainbows are fall spawners (likely Hot Creek stock).

- Amphibians: Yosemite toad found in meadows tributary to Coldwater Creek (Graveyard Meadow and Twin Meadow). Many fish are noted as occurring in creek (including golden and eastern brook trout). Quail Meadows had many fish, but not amphibian species of concern were noted.

***Florence:** Rainbow, brown, eastern brook, and golden trout. No Forest Service amphibian surveys were conducted in 2000.

***Huntington:** Rainbow, brown, eastern brook trout, kokanee, sucker, and golden shiner.

- Amphibians: Historic occurrence of mountain yellow-legged frog. Current populations of Yosemite toads in some tributaries. Possibility of Batrachoseps (slender salamanders) in terrestrial environment.

***Shaver:** Smallmouth, largemouth, and possibly spotted bass. Black bullheads, bluegill, green sunfish, golden shiners and suckers. Kokanee, rainbow, brown and eastern brook trout. Fishery is opportunistic based on reservoir being in place. Reservoir level management will dictate fishery. Decision is whether to management as warm or cold-water fishery. Coldwater pool would benefit fishery downstream of reservoir.

- Herpetofauna: Some tribs have western pond turtle. Transition area between habitat for foothill and mountain yellow-legged frog.

***Balsam Meadow Forebay:** Trout habitat, same species as Huntington and Shaver. In addition, has centrarchid species found in Shaver, along with

bullheads and golden shiners. Could be managed as a recreational fishery. Need to close for deer herd migration during spring and fall.

Invertebrates

* Mollusks and macroinvertebrates. Community level indicator for water quality. Stanislaus is using a multivariate approach. California bioassessment protocols are being implemented in some projects. State is starting to inventory and monitor some mollusk species. Don't know much about them or their distribution. Some are using ethnographical approach by reviewing midden sites. Mussels may have extended in the system to the limit of anadromous fish, as some can attach to gills of fish. Some East Coast passage studies are using occurrence of mollusks upstream of present barriers as indicators of historic passage. May have an even further range extension if transport by waterfowl.

- Could be unique species as any point in basin. State or Forest does not have any special interest species at this point.

To do list:

Wayne:

- Will put together bulleted list of resources for group to review, after review of above notes
- Put together bulleted outline for potential study plans. This will be developed for December meeting.

Dale: Think about analytical integration for either ecosystem or community level synthesis. Brain storming exercise for those who want to meet for dinner after the next Plenary.

Group needs to:

- Make sure we haven't missed any other biota.
- Think about objectives that would initiate studies to get at resource condition.
- Put together a bulleted list of study objectives.
- Review Management Objective list and ask if it requires a study.
- Look at wildlife section for amphibians.
- Coordinate with recreation group for creek study.
- Review the various matrices provided to the Plenary and be prepared to discuss.

General:

SCE to provide Adobe Acrobat copies of all documents. This is not an AWG issue.

Agenda
Big Creek Water Quality / Geology Working Group

October 31, 2000, 1:00 p.m. to 3:00 p.m.

Teleconference Call-in number: 1-800-569-0883
Tell Operator: Big Creek Water Quality Working Group Call
Moderator: Steve Rowan

Or attend in person at: Supervisor's Office (SO), Computer Training Room, 1600 Tollhouse Road in Clovis. (Note: this is different from the USFS office in Prather) Call Rick Hopson at 559-855-5355 x3358 for directions.

- Approve October 12, 2000 Meeting Summary
- Discuss draft Goals and Objectives Table
- Discuss Project Nexus and Impact Mechanism
- Set Agenda for next meeting

Meeting Summary
Water Quality / Water Use Work Group
October 31, 2000

Attendees:			
Chuck Bonham	(phone)	Trout Unlimited	cbonham@tu.org
Jen Carville	(phone)	Friends of the River	jen@friendsoftheriver.org
Jerry DeGraff		USDA Forest Service	jdegraff@fs.fed.us
Rick Hopson		USDA Forest Service	rhopson@fs.fed.us
Toby Horst		Resource Conservation District	easyrider@psnw.com
Russ Kanz	(phone)	State Water Resources Control Board	rkanz@waterrights.swrcb.ca.gov
Wayne Lifton	(phone)	Entrix	wlifton@entrix.com
Larry Lockwood		Sierra Access & Multiple-use Stewardship	lclockwood@psnw.com
Julie Means		California Department of Fish and Game	jmeans@dfg2.ca.gov
Bill Pistor	(phone)	Kearns & West	bpistor@kearnswest.com
Steve Rowan		Southern California Edison	rowansj@sce.com
Sharon Stohrer	(phone)	SWRCB	sstohrer@waterrights.swrcb.ca.gov
Phil Strand		USFS	pstrand@fs.fed.us
Dan Tormey	(phone)	Entrix	dtormey@entrix.com

Previous Meeting Summary - The summary for the Water Quality / Water Use Workgroup meeting of 10/14/00 was accepted with one change. Toby indicated the meeting summary did not adequately reflect his position with relation to Socio-Economic effects. He wants to make sure we get in writing early that the socio-economic effects of proposals will be considered when making decisions. This analysis must include the value of generation, irrigation water, and flood control.

Resource Interest Matrix – Items that have been sent in but are not showing up in the matrix should be re-forwarded to Bill Pistor for inclusion in the matrix.

Russ indicated the Water Quality matrix is missing point sources of problems due to project operations including problems that are created by the reservoirs. Dan indicated this will fall out as we look at nexus. Reservoir impacts will be addressed under chemical water quality, temperature, and sediment transport. Algal problems will fall under impact mechanisms.

Rick asked about bacteria, DO, sediment and turbidity and where these items fall in the matrix. Dan answered these will fall under chemical effects except sediment which comes under sediment transport.

Water Use Resource Interest – This interest relates to Hydrology. Chuck feels Hydrology should be its own resource interest with Channel Maintenance Flows being a goal under Hydrology. Looking at natural hydrology should be another basin goal. Indicators of hydrologic alteration could then be addressed.

Dan indicated the description of the natural hydrologic regime and how its been changed didn't seem to fit as a goal.

It was suggested that after adding Hydrology as a resource interest, consider a goal to optimize or restore the natural hydrologic condition as far as magnitude, timing, and rate of change. Rick indicated we will have to understand the natural hydrograph to analyze sediment transport, woody debris, etc. Chuck will call Dan and together they will work out the terminology to make sure his view on hydrology is incorporated into the resource interest matrix.

Volcanic Hazards Resource Interest – Jerry wants to change the objective under Volcanic Hazard to make it what he submitted. He wants to evaluate what power lines would do and how problems would be best addressed to minimize hazards. This correlates to the USFS Volcanic Disaster response plan.

Impact Mechanism Spread Sheet - The group reviewed the Impact Mechanism spread sheet.

Diversion – reduction in flow impacts water quality ie temperature, habitat, containment, concentration, etc.

Change Water Quality heading to read Chemical Water Quality.

There was a discussion of definition of Water Quality. Russ indicated he feels Water Quality consists of all aspects than can have an impact on beneficial uses. Beneficial Use as described in the Basin Plan is much broader than what we have in the Water Quality matrix. Other groups are addressing many of these uses. It was agreed we will list all aspects of Water Quality based on Beneficial Use affect. Any areas not being covered by our group will have an identifier as to which group is covering the item. Dan will do this based on Sharon's previous input. He will e-mail this to Sharon to preview prior to the November plenary meeting. This will help define our boundaries and assure the items under the Boards authority are being adequately addressed. Russ will send the website with the Basin Plan so the group can review.

Sharon indicated recreation on project reservoirs is project related. Degradation in DO must be added to the matrix. Accumulation of sediment is not related to stratification. Sharon said we should consider the level of the outlet being drawn for fish water release. It affects temperature and can cause a chemical reaction with the sediment in the diverted reach.

We need to look at the affect of the normal effluent of the Waste Water Treatment Plant and Fish Hatchery at Big Creek 1, not just spills from the plant.

Rick asked about the term "non-degradation" and is it part of the basin plan. This terminology is in an appendix to the plan and will be introduced into the process.

Sediment Sluicing – the effect of sediment sluicing on water quality in relation to its effect on gill abrasion must be addressed. Sediments can also contain chemicals.

Rick asked about spills over spillways, i.e. Portal and Balsam Meadow. This should be addressed in relation to sediment transport and also turbidity.

With relation to the man made diversion channel from Warm Creek to Boggy Creek. Where did the sediment go? Is sediment still moving? What happens to turbidity when water flows through the channel? Has the channel achieved equilibrium?

Diversion – Change channel maintenance capacity to sediment transport capacity and channel maintenance. Clarify that it includes small diversions up to large reservoirs.

Reservoirs starve area immediately below dam of sediments and cause increased erosion in the area below the dam. Sediment of all sizes must be addressed below reservoirs as well as reduction of gravel recruitment. Shoreline erosion is primarily a turbidity effect. Shoreline erosion also leads to a reduction in spawning habitat.

Sharon stated she feels campgrounds, recreational activities, and summer homes are project related. They would not be there if not for the project. Change the category to shoreline recreation. Include nutrient loading. Rick suggested calling them indirect project effects. Russ suggested we call it all recreation at this point and address it later.

Some of these issues will be discussed in tradeoffs. The plenary will need to discuss direct vs. indirect category of these recreational activities.

Temperature – Break out small diversion reaches from larger main stem bypass reaches.

Remove "non-point source" from verbiage on WWTP and Fish Hatchery.

Keep "Non-Point Source" in another area and address riparian, grazing, chemical effect, under forest service permit. Other issues to be identified in the future.

Riparian cover not a project nexus but a non-point source. Change "sunlight" to "solar insolation". Delete "ambient meteorological effects".

Next Meeting – will be held Thursday 11/9/00 (day after plenary) 8:00 am. The objectives of the meeting will be to finish the "Water Use" and "Sediment" sections of the resource interest matrix and to begin discussion of study objectives.

Agenda
Big Creek Aquatic Working Group

November 9, 2000, 0800 – 1100 hrs".

Teleconference Call-in number: 1-800-569-0883
Tell Operator: SCE Aquatic Working Group Call
Moderator: Wayne Lifton

- Review Material Provided By Steve Rowan On Project Effects For Direct Use In Project Nexus For Aquatic Species
- Review Management Goals and Objectives for Aquatics (if needed)
- Identify the Other Types Of Information Needed to Work Through Project Nexus Matrix Approach Presented By Wayne Lifton at the September Plenary
- Review Target Resources List
- Resource Conflict and Coordination Issues
- Discussion of Study Plan Objectives
- Schedule for Working Group Meetings

Big Creek Collaborative

Big Creek Water Quality Working Group

November 9, 2000

AGENDA

Time:	7:30 to 10:00 AM	**Moderator:**	Steve Rowan
Location:	Piccadilly Inn University	**Coordinator**:	Dan Tormey
Teleconference No.:	1-800-569-0883	**Recorder**:	Steve Rowan
Teleconference Name:	Big Creek Water Quality Working Group		

- Approve October 31, 2000 Meeting Summary
- Finish Project Nexus/Impact Mechanism
- Study Objectives

Final Big Creek ALP Aquatic Working Group Meeting Notes

(Combined Aquatics/Water Quality Working Group Meeting)

November 11, 2000 Piccadilly Inn, Fresno

Present:

Jen Carvelle (Friends of the River); Dan Tormey (ENTRIX); Dale Mitchell (CDFG); Geoff Rabone (SCE); Russ Kanz (SWRCB); Sharon Stohrer (SWRCB); Larry Lockwood (SAMS); Ed Bianchi (ENTRIX); Harry Williamson (NPS); Julie Means (CDFG); Phil Strand (USFS); Rick Hopson (USFS); Earl Franks (USFS); Roger Robb (Friant Water Users); Lonnie Schardt (Huntington Lake Assoc.); Wayne Lifton (ENTRIX); Toby Horst (RCD); Martin Ostendorf (ENTRIX); Chuck Bonham (TU).

No one attended via conference call.

***Note**: These notes summarize the first combined meeting of the water quality and aquatic group. The two existing group agendas were followed separately and sequentially. The Water Quality Working Agenda (which includes Water Use, Geology, and Soils) was addressed first. This was then followed by the previous Aquatic Working Group. Future notes will represent a single agenda under the title of the Aquatic Working Group (AWG).*

Recorded by: Martin Ostendorf during 0800-1000 hrs for the Water Quality portion. Phil Strand during 1000-1200 hrs for the Aquatic Portion.

Water Quality Portion of Meeting

Minutes from the October 31 Water Quality Working group Meeting.

These minutes have not been sent to group for review and are forth coming. Please review on receipt and provide comments, as needed. These will then need to be approved at the next meeting on November 29th.

Review Revised Resource Goals and Objectives Matrix:

- The Resource Interest/Goals and Objectives Matrices for the Aquatic and water Quality working groups will be merged
- Hydrology is a separate Resource Interest (RI) and should be listed as a separate RI in the matrix. A management goal for hydrology would be to mimic the natural hydrograph. Therefore it is important to gather and understand hydrologic information on natural flows.
- RI matrices must list all management goals, despite conflicts. Everyone should be allowed to express his or her resource interest, goals and objectives. We should not exclude anything.
- Both hydrology and channel maintenance should be a stand-alone resource interest.
- Manage flow magnitude, timing, duration, and rate of change to more closely approximate the natural hydrograph.

Review Project Nexus:

- Provide footnotes/definitions for the potential Project Nexus (e.g. Habitat modification, Direct take, Prey abundance, etc.).

Discussion of Project Nexus
Question of What is the Project Nexus?

- Is it project-induced or project-affected?
- Why start with all diversions in the Project Nexus? Is it because there is project-induced or affected impacts from these diversions?

Discussion of whether there is a Project nexus due to facilities or activities within the Project boundary. The sense of the group was that being within the Project boundary alone does not constitute a nexus by itself. Other discussion included the following:

- Area of influence.
- Project-induced or Project-affected. Should be looking at the watershed due to multiple projects not at the boundaries.
- Work through sediment transport/channel maintenance.

Discussion of format of Project nexus table. There was a desire within the group to change the existing format. Would rather see a table like that in the Terrestrial group. Discussion on how to evaluate Project Nexus and whether resources or impacts should be in rows or columns. It was pointed out that to accomplish what was discussed, we would need two matrices or one three-dimensional matrix. Dan Tormey offered to rework the Project nexus matrix with input from a sub-group.

Action Items

- Everyone to make single text edits and add additional resource interest to reflect it accurately on both documents the Kearnes and West compilation and the resource interest matrices.
- All emails should include the deadline date.
- November 17th is the deadline for review of the existing management goals and resource interest matrix.
- Dan Tormey to rework (Project Nexus table) and send table back to everyone. Send list of resources that should be added to Dan.
- Dan Tormey to coordinate a subgroup consisting of: Rich, Geoff, Russ, Julie, and Dan. The group is to discuss modifying the matrix, a first cut of the new matrix is due November 17th.

Aquatic Portion of Meeting Summary:

Reviewed Notes from Previous Conference Call:

- Chuck and Jen indicated that they were not aware of the call in number and the call, so did not participate.
- Sharon Stohrer was on the call, but was not listed on the notes. The notes will be amended to indicate her participation.

Agenda items to be covered

Review material provided by Steve Rowen on project effects; review Management Goals and Objectives for Aquatics; identify the other types of information needed to work through project nexus matrix approach; review Target Resources List; Resource Conflict and Coordination Issues; discussion of Study Plan Objectives; and Schedule for Working Group Meetings.

Review Material Provided by Steve Rowen on Project Effects

Steve had presented Matrix to group on 11/10/2000. Materials had not been provided to group prior to meeting.

- Add biological elements to Matrix that Dan Tormey is developing to provide an integrated format based on major topic identifiers. This will need to take place after Dan's subgroup meeting.

Review Management Goals and Objectives

- From second page of Fisheries Draft: *Anadromous Fish* (salmon and steelhead). Management Goals; Protect anadromous fish populations in the lower San Joaquin River (downstream of Friant Dam). Check with Cultural Resources working group, whether the goal might be consistent with their goal.
- Need to get *mollusks* incorporated as resource interest with Management Goals. Might be similar macroinvertebrate verbage. Need to add distribution.
- Need to add *amphibians* (which had been listed under Terrestrial Workgroup)
- *Riparian* description under the Fisheries Group not complete. Combine with verbage from Botanical/Terrestrial and Water Use/Quality goals and objectives.
- *Native Trout*: Add objective to *Consider* effect of stocking on native trout.
- Can provide other additions via email.

Other Types of Information Needed to Work Through Project Nexus

Moved to Target Resources due to lack of time to review the matrix that Steve had completed.

Target Resources

Handouts: Target Resources Matrix; Draft Stream Study Plan Objectives; Draft Reservoir Study Plan Objectives

Target Resources Matrix: broken into fish, amphibians, reptiles, invertebrates, riparian, community level, ecosystem level, other resources

- Forebays and afterbays need to be added.
- Community indices: easy to develop for macroinvertebrates.
  - Index of Biological Indicators (IBI) have been developed for Midwest.
  - Wayne and Dale will provide group with examples of Habitat Quality Index (HQI) models.
- Target resources broken into upper and lower basin. Use SNEP breakdown of 1500 meters (3500 feet) to differentiate upper and lower. Roughly Mammoth Pool on main river.
- Fish species
  - Rainbow trout of anadromous stock. CDFG may be able to get DNA testing of rainbow trout tissue to establish lineage.

- Golden trout/hybrids: Question regarding inclusion and status. Golden trout have been introduced to higher elevation waters within the basin. Many have had rainbow trout stocked within same drainages and have likely resulted in hybridization. CDFG would consider as golden trout/hybrids as non-native rainbow.
- Golden shiner (discussed in previous call) not listed in matrix.
- Striped bass should be listed for Redinger Lake.
- Species listed as entity. Each species has life stages that have different habitat needs and preferences. Studies need to reflect differences in life stage and periodicity so that they are conducted in correct time and place.
- Salmon and steelhead? Question of what to study. They are not within project waters.

Portal Project Relicensing: Overlap of studies with ALP. Going through traditional licensing process. Timing issue of getting 1st and 2nd Stage Consultations completed in proper time frame.

- Studies for Portal and ALP initiated at same time and should have consistency between studies.
- ALP study plans should be complete prior to finalizing plans for Portal Project studies. Groups need to be involved with both with projects.
- Can comments on Portal refer to ALP?
    - Stakeholders put position at risk in event that a settlement agreement does not take place.
    - Needs to be clarified to Plenary.
    - Concern that some groups do not have time and resources to be involved with both groups. Groups have chosen to be involved with ALP because multiple projects are involved.
    - Settlement agreement can affect entire basin.
    - Intent is to look at as integrated system, but two processes are going on.
    - Traditional licenses will be issued, possibly amended based on ALP. Resource agencies would condition licenses for re-opener.
    - Re-opener would likely require license amendments and possibly NEPA.

How far should boundaries be extended downstream?

Some stakeholders have interests below Friant Dam.

- Redinger Lake not included because studies have been conducted for Big Creek 4 relicensing.
- That information is available as will be data collected for Vermilion and Portal.
- Need to look between projects as we go. Vermilion is linked to remainder of project through water routing. Difficult to assess ecologically due to linkage if all projects are not considered.
- Different stakeholders need to provide downstream objectives or interests.
    - May already be in the Resource goals and objectives.
    - Needs resolution in order to determine where studies need to be conducted.
    - Boundaries for affected resources will likely vary by stakeholder.
    - Study between Powerhouse 4 and Friant may be more of a hydrological analysis, rather than biological on-the-ground studies
- Two exceptions were identified:

- Cold and warm water species, which require data on water temperature.
- Sediment transport to Millerton. Identification of sources and determination of amount in Millerton.

- Study plans will result in reports. Boundaries will continue to come up through ALP process.
- May end with 10j recommendations due to stakeholder claims to water.
- All waters in basin will be included in matrix. A column will be added for waters below project.
- SCE is linked to downstream areas through Mammoth Pool Agreement. Water quality and sediment transport into Millerton is from upstream uses.
- Need Plenary level discussion on study boundaries
  - Flesh out Aquatic group proposal before being presented to Plenary.
  - Add to Aquatic group agenda (probably take more than one meeting and may be an ongoing discussion). Should present proposal to Plenary group.
- Develop a single text document on project boundaries in order to capture stakeholder thoughts

Wayne handed out: Target Resources Matrix; Draft Stream Study Plan Objectives; Draft Reservoir Study Plan Objectives

Action Items

- Be prepared to discuss at next meeting
- Wayne will email out Agenda with timeframes to keep group moving forward.
- Wayne will email past materials to members from the Water group.

Agenda

Big Creek Combined Aquatics Working Group

Meeting at ENTRIX Sacramento Office
2601 Fair Oaks Boulevard, Suite 200 (Second floor)
Sacramento, CA 95864
(Tel) (916) 923-1097
(FAX) (916) 923-6251

November 29, 2000, 1000 – 1630 hrs".

Teleconference Call-in number: 1-800-569-0883
Tell Operator: SCE Aquatic Working Group Call
Moderator: Wayne Lifton

- Review Notes of November 9, 2000 AWG meeting
- Review revised Management Goals and Objectives for Aquatics
- Review simplified Project effects matrix
- Review revised Target Resources List
- Review outlined Study Plan Objectives
- Bulleted study plan outlines
- Draft USFWS letter

Big Creek Collaborative

Combined Aquatic Resources Working Group

November 29, 2000

Final Meeting Notes Version December 7, 2000

Time:	10 AM to 2:30 PM	**Moderator:**	Wayne Lifton
Location:	ENTRIX Sacramento Office	**Coordinator**:	
Teleconference No.:	1-800-569-0883	**Recorder**:	Martin Ostendorf
Teleconference Name:	Aquatic Wkg. Grp.	**Spokesperson:**	

Attended By:
Participants in the Sacramento ENTRIX Office
Wayne Lifton
Ed Bianchi
Bill Pistor
Martin Ostendorf
Dan Tormey
Roger Robb
Jen Carville
Sharon Storher
Julie Means
Russ Kanz

Telephone Participants
Mike Henry, FERC Portland (only participated early on)
Geoff Rabone, San Dimas
Chuck Bonham, Berkeley
Phil Strand, USFS Prather Office
Rick Hopson, USFS Prather Office
Holly Eddinger, USFS Prather Office
Larry Lockwood, SAMS

General Discussion prior to meeting

Edison received a letter from National Marine Fisheries Service (NMFS) stating that they will participate in the relicensing based on potential Impacts to anadromous fish below Millerton Lake. A copy of this letter will be posted on the SCE Hydro web-site.

New Working Group Name

Everyone agreed to rename the group “Combined Aquatics Workgroup”.

Handouts distributed to the group prior to the start of the meeting:
- Meeting Agenda
- USFWS Wayne White participation letter
- Draft Aquatic Potential Impacts, Study Objectives and Summary Nexus matrix

- Target resources table
- Draft 11_11_00 Meeting Notes
- Aquatic Resource Interest/management Goals and Objectives Matrix

It was suggested the any handout materials (flip charts and presentation materials) be placed on the web prior to the meeting so that people participating by phone can view them on the web during the meeting. Currently, this information is provided to everyone by email and fax prior to the meeting. If additional materials are developed during the meeting then we can quickly copy them and fax them to everyone, as needed.

These materials were emailed to everyone prior to the meeting. Hard copies of these materials were available for everyone attending the meeting.

Facilitation

Bill Pistor will facilitate the meeting, His role as facilitator is to:

- Maintain a focused meeting on the agenda
- To facilitate order, if needed
- To assure a more formal record of decision
- Make sure that everyone has received meeting materials
- Encourage preparation for each meeting,

Review Agenda

The meeting agenda was quickly reviewed and everyone was asked if they had anything they would like to add to the agenda. No comments were provided regarding the agenda.

The agenda items were:
- Review notes from last meeting
- Management Goals and objectives
- Aquatic potential Objectives summary
- Target resources List
- Draft USFWS Letter
- Other Business

Review November 9, 2000 Meeting Notes

The following are comments regarding the November 9, 2000 meeting notes.
- The date is incorrect and should changed to 11/9/00
- Comments were made regarding last bullet on page one of the notes which refers to "mimicking of flows" it was suggested that the bullet be changed to read, "*Mimicking is based on the timing, rate of change, and magnitude of peak and low flows, and seasonality and frequency of flushing flows, not necessarily identical to the natural hydrograph but a reflection of that natural curve*". It was agreed that basing this statement only on timing is too narrowly focused. The discussion then focused on the natural hydrograph and the following comments were made:
    - We should also be looking at base flows and peak flows
    - The original thought on mimicking was to use the shape of the natural hydrographs as a guide to providing peak and minimum flows quantified by other studies such as channel maintenance or IFIM.
    - We need to look at the natural hydrograph and the impaired hydrograph so that we have a basis for comparison

- The text in the Resource goals and objectives matrix more clearly defines what we need to say and should be used to replace this last bullet. This text states, "*Manage flow magnitude, timing, duration, and rate of change to more closely approximate the natural hydrograph*". This text will replace the bullet in question.

Review Revised Resource Goals and Objectives Matrix

The Resource Goals and Objectives Matrix has been revised to reflect the goals and objectives of the combined group. The matrix now includes water quality, riparian, and amphibians and reptiles resource management goals and objectives. Everyone in the combined group was to have provided comments on this combined matrix by Nov. 17. This review is for the working group to verify that their comments have been incorporated.

The following are comments were received on the matrix:

- Volcanic and seismic hazards are still in the Combined Aquatics Group (CAWG). What happened to Air Quality? Air quality issues will be addressed in the Land Management Group.
- Riparian issues are addressed in the CAWG. However, there must be coordination with other groups that also evaluate riparian habitat. For instance in the terrestrial group, we will need to coordinate with the terrestrial group which will address wildlife species using the riparian habitat.
- Special status amphibians and reptiles need to include effects of water quality on all lifestages.

  Action item: Provide single text edits on water quality effects on lifestage of amphibians and reptiles and forward to Wayne for inclusion into the matrix.

- We need to add the word draft next to the date in the footer of the table.
- We need to add a title to the matrix, which clearly identifies the matrix to avoid confusion associated with multiple matrices.

Review Draft Aquatic Potential Impacts, Study Objectives and Summary Nexus

This table was prepared based on earlier discussions for simplified nexus matrix. This matrix presents information on potential project impacts, potential study objectives and where a potential project nexus may occur in association with Project facilities or otherwise affected by Project operations and maintenance. This table also includes some information from earlier discussions on impact mechanisms for potential Project nexus. This matrix is a precursor step to developing bulleted study plan outlines.

This is the first look at this matrix for the group, so the comments provided today are initial thoughts. Everyone will review the matrix and provide single text edits by Dec. 6th, and these comments will be integrated into the matrix, which will then be reviewed at the next meeting.

The following are comments provided on the matrix.

- We also must determine the existing habitats in the tributaries to reservoirs and diversions not just the in the bypass reaches.
- We must identify the Project issues in order to develop PM&E alternatives and to identify where studies should be performed.

- Suggested text edit (in italics), Habitat in reservoirs is a function of the *elevation*, shape, depth, and *water temperatures* of the reservoir and changes water levels that may occur during operations.
- On page 2, Item No. 5. Why only evaluate water temperatures during the warmer months? Most impacts occur during the warm months and during the winter there is little control over flow releases that may affect temperature. Suggested text edit, change warmer months to "May through October".
- On page 1, Item No. 1. We need to discuss cover for fish in the section. Under *Determine other channel conditions during habitat mapping,* we need to note undercutting of stream banks.
- Need to evaluate and characterize streambed substrate, such as the type of substrate that would be needed for macroinvetebrates.
- Need to determine substrate compositions (general composition). This should be included in Section No. 1, "Evaluate habitat for aquatic organisms.
- Are channel types a Rosgen designation? (Yes) Is there a reason why we are not doing a Level 2 classification? Interest in having streams classified at Rosgen (1996) level two.
- Brief discussion that Rosgen Level 2 classification is most pertinent to channel maintenance and sediment evaluations, but less useful in overall habitat characterizations.
- Include Rosgen Level 2 classification in first bullet in Item No. 2.
- Need to look at the unimpaired substrate upstream from the diversion. Add another column to the matrix for the stream segment upstream of diversions. Everyone agrees to add a column on the *upstream of diversi*ons.
- Item No. 2 fourth bullet down, we need to add, "rate of change".
- Item No. 4 Water Quality, we need to add coliform bacteria to the list of water quality parameters.
- It was suggested that dissolved gasses be added to Item No. 4 water quality. However, it was asked if dissolved gases are necessary. Are the SCE dams tall enough to impact dissolved gases in spilled water, for those dams that spill? Need to look into this.
- The warmer months in Item No. 5 may not work for the amphibians such as yellow-legged frogs. At some locations we may want to monitor temperature all year to understand when frogs breed. Selected streams below 5000 feet may be monitored for water temperatures and impacts to amphibian spawning (i.e. Willow Creek Jose Creek, Lower Stevenson Creek). It was mentioned that not all of these are Project-affected.
- Need to compare temperatures to basin plan standards.
- Add the determination of bankfull flow to Item No. 2 in the matrix.
- Differentiation of small bypass reaches to larger reaches. In smaller reaches we will evaluate channel maintenance flows, in large reaches we propose to do IFIM studies to determine minimum flow.
- Many of the small diversions have no storage, so any large flows in the tributaries are not captured by the diversion.
- We should study the effects of the Project, we must be aware that we do not do studies for data acquisition alone. Studies should be performed to determine Project effects.
- In most water years, the small streams with diversions are perennial. In some dry years some of the streams may be intermittent. Many of the streams have instream flow requirements that exceed the natural flow in the summer times. Generally worded to be the minimum instream flow or natural flow, whatever is less.
- Riparian and vegetation is covered in Item Nos. 1, 2 and 11, specifically where will these resources be covered. Item No 1 refers to a general characterization of riparian habitat (broad based during habitat mapping). Item No. 2 applies to channel maintenance flows in riparian habitat and how these flows effect habitat. Item No. 11 refers to completing a true characterization of riparian community based on more riparian-directed mapping. These are three separate components of information that would be used in a riparian study.

- Characterization is not what is wanted as a result. A study objective should be aimed at determining and knowing the effect of the Project on the resources interests. Characterize does not include a determination of the Project effect.
- "Characterize and assess", is a better way of describing.
- The outcome of every study element is to determine what the Project effect is. It was suggested that we add a footnote to all studies, to this effect. **Action Item**: Wayne will craft a universal footnote to determine impacts from characterization.
- We need to make sure that the mollusks are included. They are included in the target species matrix.
- Water use: Consumptive water use in the Shaver lake community needs to be included, we can not lose this (Russ)
- We need to address the downstream effects on water use due to operational changes.
- Item No. 13, bullet no. 2, we need to make a more specific comment. Should be the reservoir and the dependence of communities on these reservoirs. We need to revisit the goals and objectives matrix and be consistent make them consistent with the version. **Action item**: Dan will redraft a more specific objective.
- It was suggested that we need to include direct, indirect, and cumulative effects. However, we are to early in the process to try to identify all of the cumulative effects. In some regard the water use evaluation is a cumulative effects analysis.

Place holder for future discussion by the working group regarding item No. 3, second bullet. We need to discuss the potential application of the Wetted Perimeter Method. We haven't come to this conclusion as a group as yet. Some feel that we should include PHABSIM in the method statement. However, others indicate that we will likely use IFIM not PHABSIM. This will be an involved discussion that the group must undertake to develop a consensus on the methods that will be used.

When can we have this future discussion? Next CAWG meeting is December 13th, from 8 to 12. At this meeting we will be providing bulleted study plans, so if people can think about their methods, then we would be prepared to develop the detailed methodologies for the study plans.

Sharon and Russ asked that we provide all the handouts before the next meeting since they will not be able to attend.

Review Revised Target Resources Matrix

Everyone was asked to review matrix and provide comments by Dec 6th. Please make sure that the list is complete. We will use this list in developing the study plans. This list reflects everyone input on target species.

We will put "X's" in the matrix boxes after we complete the bulleted outlines study plans.

Under other resources, will we list other resource targets (those abiotic resources other than biological issues)? We don't want things to fall through the cracks.

The original intent of this table was for biological resources. However, if people want to include abiotic issues, they can be added to other.

It was suggested that we title this matrix as "Target Biological Resources " and remove other from the table

We may need to add another table at a later date for abiotic resources.

Bulleted Study Plan Outlines

Discussion on the process of developing bulleted study plan outlines. How will we progress to the next step for the development of bulleted study plan outline? This discussion will be based on the procedures/process that should be implemented to develop the bulleted outlines.

- By Dec 6th people will provide their comments on the study objective and summary Nexus matrix.
- This input to the nexus matrix will be used to develop bulleted study plan outlines.
- Draft bulleted study plan outlines will be sent to everyone by Friday the 8th for everyone's review prior to the meeting on the 13th.

Review USFWS letter

This discussion was directed at the preparation of a letter from the collaborative to the USFWS requesting their participation in the Big Creek ALP.

Geoff Rabone and Wayne Lifton met with Gary Taylor at the USFWS and the following is a summary of that meeting:

- Participation in the ALP Process.
- USFWS lack of personnel to participate. New staff will be hired at the beginning of the year, one of which can be assigned to the Big Creek ALP.
- The collaborative is concerned by the lack of USFWS participation in the development of study plans especially in the ESA consultation.
- Discussed these issues and stated that we could write a letter to the USFWS expressing our concerns.
- This letter should be sent to Wayne White.
- A letter has been drafted for review by the collaborative. This letter is asking that the USFWS provide representation from both their branches (hydro and ESA).

The following are comments regarding the review of this letter:

- Comment on the description of the seven Big Creek projects. The intent of this comment is to demonstrate the size and importance of the project.
- Suggested addition to the end of the first paragraph. "A significant factor in SCE's decision to adopt the relicensing model was the strong policy endorsement on the part of resource agencies, including the USFWS of a watershed approach toward environmental analysis"
- Forth paragraph, 2nd sentence additional text (in Italics), "there is concern that *our study plan schedule may not be achievable, and t*hat these efforts may *therefore…"*
- Discussion of how to have the collaborative sign it. Have the collaborative vote on it, and then include a list of the collaborative members. Everyone agreed to this procedure.
- Third paragraph 2nd sentence additional text (in italics), "This *absence…".*
- Second paragraph 2nd sentence additional text (in italics), "This *ALP…".*

The changes will be incorporated into the letter and the revised letter will be email to all plenary participants requesting review and comment. If no comments are received, then it will be mailed on Monday, December 4th.

Other issues

Heads up issue. Due to reorganization of the USFWS and involvement by NMFS, the USFWS and the USFS service may require that candidate species be evaluated since the project extends onto the Central Valley floor. Hence we may pick up some additional species for evaluation (i. e. Delta smelt, long fin smelt. Giant garter snakes, etc). The USFS or the USFWS, may request a that a biological assessment be prepared for the studies that are being proposed for all T&E species that may be effected by the implementation of studies.

Action Items

Dec. 4	Final comments to Wayne on the Aquatic Goals and Objectives Matrix
Dec. 6	Comments due on the draft and summary nexus, and the target resources list
	Provide single text edits on water quality effects on lifestage of amphibians and reptiles and forward to Wayne for inclusion into the matrix.
Dec. 8	ENTRIX will incorporate comment and return to everyone. Also will include bullet study plan outlines.
Dec. 13	Come prepared to the meeting to discuss wetted perimeter methodologies

No date specified

- Wayne, send out material on the wetted perimeter method to everyone prior to our next meeting so that they are prepared to discuss it during the meeting.
- Wayne will craft a universal footnote to determine impacts from characterization. (I.e. The outcome of every study element is to determine what the project effect is.)
- Dan redrafts a more specific objective for Item No. 13, bullet No. 2. We need a more specific comment regarding the reservoirs and the dependence of communities on these reservoirs. Revisit the goals and objectives matrix and be consistent with it.

Agenda

Big Creek Combined Aquatic Working Group
Meeting at Piccadilly Inn
Fresno, CA

December 13, 2000, 1000 – 1230 hrs".
December 14, 2000, Time to be Determined

Teleconference Call-in number: 1-800-569-0883
Tell Operator: SCE Aquatic Working Group Call
Moderator: Wayne Lifton

- Discussion of December 13-14 schedule
- Review Notes of November 29, 2000 CAWG meeting
- Review Resource Goals and Objectives Matrix
- Review Aquatic Potential Objectives Summary matrix
- Review Bulleted study plan outlines
- Wetted Perimeter Discussion
- Dissolved Gases Discussion
- USFWS letter
- Future Scheduling
- Other Business/Wrap Up/Review Action Items

Big Creek Collaborative

Combined Aquatic Resources Working Group

December 13, 2000

Meeting Notes

Time:	10 AM to 1:00 PM	**Moderator:**	Wayne Lifton
Location:	Piccadilly Inn, University, Fresno	**Coordinator**:	
Teleconference No.:	1-800-569-0883	**Recorder**:	Martin Ostendorf
Teleconference Name:	Aquatic Wkg. Grp.	**Spokesperson:**	Rick Hopson

Attended By:

Participants in person at the Piccadilly Inn University

Wayne Lifton	ENTRIX
Ed Bianchi	ENTRIX
Bill Pistor	Kearnes & West
Martin Ostendorf	ENTRIX
Roger Robb	FWUA
Jen Carville	Friends of the River
Julie Means	CDFG
Harry Williamson	National Park Service
Dale Mitchell	CDFG
Phil Strand	USFS
Lonnie Schardt	Huntington Lake Association
Larry Lockwood	SAMS
Holly Eddinger	USFS
Rick Hopson	USFS
Chuck Bonham	Trout Unlimited
Toby Horst	RCD
Geoff Rabone	SCE
Steve Edmondson	NMFS

Telephone Participants

Mike Henry,	FERC Portland Signed off (only participated early on)
Bob Baiocchi	CA Sportfishing Protection Alliance
Sharon Stohrer	SWRCB
Paul Wisheropp	ENTRIX

Handouts distributed to the group during the meeting:

- Meeting Agenda
- 11_29_00 Meeting Notes
- Combined Aquatic Resource Interests, Goals and Objectives Matrix
- Draft CAWG Potential Study Objectives Matrix
- Bulleted Study Plan Outlines

Facilitation

Bill Pistor will facilitate the meeting, his tasks are:

- Maintain a focused meeting on the agenda
- To facilitate order, if needed
- To assure a more formal record of decision
- Make sure that everyone has received meeting materials
- And that everyone has done their homework by being prepared for the meeting

Dan Tormey cannot attend today, so Wayne recommended that we meet again tomorrow afternoon to have Dan present the material that he has prepared. (This presentation will include presentation of wetted perimeter method.) Everyone agreed to reconvene.

Review Agenda

The meeting agenda was quickly reviewed and everyone was asked if they had anything that they would like to add to the agenda. No comments were provided regarding the agenda.

The agenda items are:

- December Schedule
- Review minutes from 11/29/00 meeting
- Resource Goals and Objective matrix
- Aquatic Potential Objectives Summary
- Bulleted Study Plan Outline
- Wetted Perimeter Discussion
- Dissolved Gases Discussion
- USFWS Letter
- Future Scheduling
- Other Business/Wrap up

Can everyone meet tomorrow @ 10:45AM to 12:00PM?
(Steve Edmondson cannot make it), Chuck will attend by phone.
Everyone has agreed to reconvene tomorrow from 10:45AM to 12:00PM

Review November 29, 2000 Meeting Notes

The following are comments regarding the November 9, 2000 meeting notes:

- Geoff Rabone has some minor editorial comments and edits that he will submit for inclusion into the minutes.
- Wayne requested that edits be submitted by email with revision marks to ENTRIX, these comments will be incorporated, and the notes resubmitted to the working group for review.
- Try to get comments to Wayne this week.
- After discussion, it was decided that the meeting notes are approved with Geoff's edits.

Mike Henry commented on NMFS letter on anadromous fish. The Big Creek No. 4 EIS (in spring/summer 2001) will address this issue.

Review Revised Resource Goals and Objectives Matrix

The Resource Goals and Objectives Matrix has been revised to incorporated the most recent comments from the group. Steve Edmondson, NFMS, wants the opportunity to provide comment. This is the first time he's seen it. Wayne asked that comments be submitted to him by email.

Amphibians - not all edits from last meeting were included (both goal and objective) as requested.

Protect the viability (incorporate into the statement). Goal changed to:

"Protect and enhance the viability of special status amphibian and reptile."

Jen asked that we indicate in our email small edits made to the documents, then not every email needs to be printed, and these changes are then noted.

Review Draft CAWG Potential Study Objectives Nexus

The footnote requested from the last meeting has been included on the matrix.

The following are comments provided on the matrix.

- Volcanic hazards should not be included in the aquatic (this only discusses ash fall and transmission lines), hence maybe it should be moved to the land management group. (Due to the restructuring of the groups it dove tailed into this group.)
- Tributaries, should have "X" in all the boxes in the column under "upstream of small diversions", for item No. 4 Evaluate Water Quality Parameters.
- Under No. 1, "Under cut banks", what are we doing, only identifying or quantifying? We are identifying presence absence to the extent that they can be readily ascertained.
- Under No. 3, "potential application of IFIM", should this be PHABSIM, not IFIM? We will change to PHABSIM. Also the third bullet will be changed to PHABSIM.
- Under No. 4, "coliform bacteria", what is the methodology that will be applied? It will be a quantitative analysis on the reservoirs, not only presence/absence screening. (However, on the tributaries it may only be a screening evaluation.)
- Under No. 5, "temperature", third bullet, add X's to Small diversions, upstream of small diversions, Tributaries to reservoirs, bypass reaches (small), bypass reaches (moderate), and flow augmented streams.
- Temperature monitoring in warmer months, change to identify specific times when monitoring may occur. Some streams may need temperature monitoring other than during the warmer months. For instance, Camp 61 Creek below Portal Forebay may freeze in the winter and would pose a problem to fish. Hence it may need to be monitored during the winter to determine if the fish are freezing. This would only apply to streams with winter flows altered by diversions.
- Under No. 5, first two bullets add "X"s in the column under "upstream of small diversions".
- Under No. 5, combine the first two bullets into one row. Then copy the combined rows and reference one to temperature monitoring in the summer months and one to temperature monitoring in the winter months.
- For winter, temperature monitoring is not what we are trying to evaluate. What we are really trying to determine is if there is flow in the winter months or whether the stream freezes to the bottom.
- Under No. 7, add a potential study objective in second block of No. 7: Determine effect of flow regimes on various life stages of target/special status amphibians and reptiles. Then add "X"s in the following boxes: small diversion, bypass reaches (small), bypass reaches (medium), San Joaquin River, and Flow Augmented Stream.
- Add objective; "Evaluate the effect of sedimentation on various life stages of target/special status amphibians and reptiles".
- Add objective evaluate the effect if increased predation on various life stages of target/special status amphibians and reptiles".
- Under No. 7, last bullet change temperature to "year round temperature" regime.
- Under No. 7, 4th bullet fish stocking, add 'X" under Hatchery/Camp Edison
- Under No 2, 1st, 3rd, 4th, 5th,and 7th objectives, add "X"s under upstream of small diversions.

- Under No. 6, 1st objective, add "X" under upstream of small diversion.
- Under No. 2, Questions. How do you evaluate the sediment sources? Will address tomorrow.
- Under No. 13, What is the definition of Project waters? Will it include the tributaries? This is aimed at the main project reservoirs and large streams. Need to more clearly define this as consumptive use.
- Second objective, have text include "storage for domestic water use".
- Third objective, add "X"s under large dams, San Joaquin River, Power Generation, and Water Conveyance/Structures.
- Fifth objective, add "X"s under large dams, Moderate Diversion Dams, San Joaquin River, Power Generation, Water Conveyance/Structures.

This review will continue tomorrow when we reconvene after the plenary, and Dan will make his presentation.

Bulleted Study Plan Outlines

Special Status Amphibian Study general approach, where did the 150-ft come from and what is the likelihood come from and can it be extended to 300 feet. The number came from USFS comments during Vermilion relicensing (USFS Portal comments will recommend 300 feet). Surveys may miss amphibians/reptiles, and wildlife, which move in and out of the 300-ft boundary. May need to evaluate out to ¼ mile to capture spring seeps, places from which the animals may come into the Project survey area. Study should expand to capture these areas outside of the 150/300 feet zone, (inventory type study). This applies to terrestrial wildlife and amphibians and reptiles (reconnaissance level study, followed up by more detailed study as needed based on the reconnaissance study).

The 300-foot band originates from the USFS Sierra framework.

Review USFWS letter

Copies of the USFWS letter are available for everyone's review. We are hoping to have this approved at tomorrows plenary. Please review and provide comment at tomorrows Plenary, if any.

Other issues

Everyone, please provide comments to the bulleted study plans by the middle of next week, if possible. Another set of revisions to the study plans will be distributed to the group on December 29, 2000.

The next CAWG meeting is the 10th of January will also try to schedule a conference call meeting about 2 weeks following the January meeting.

Discussion of having occasional CWAG meetings up in Sacramento. Everyone agreed that this would be fine, provided that we can set up a conference call location in the Fresno area.

Action Items

- Wayne to brief Mike Henry with FERC on 2nd day meeting after January 1.
- Wayne and Steve Edmondson (NMFS) to discuss study plan development and background after January 1.

- Meeting minutes to be distributed to working group rapidly to enable those stakeholders unable to attend the 12/14/00 meeting to weigh in.
- Revisit nexus matrix, Section Nos. 2 and 13 on 12/14/00 meeting.
- For documents with small edits, identify what has changed in the cover email.
- Wayne to brief Sharon on this meeting, after her sign off.

Thursday meeting (continuation of meeting, 12/14/00 from 11 AM to 12 PM)

Attended By:

Wayne Lifton	ENTRIX
Ed Bianchi	ENTRIX
Bill Pistor	Kearnes & West
Martin Ostendorf	ENTRIX
Roger Robb	FWUA
Harry Williamson	National Park Service
Dale Mitchell	CDFG
Phil Strand	USFS
Lonnie Schardt	Huntington Lake Association
Larry Lockwood	SAMS
Rick Hopson	USFS
Toby Horst	RCD
Geoff Rabone	SCE

Telephone Participants

Chuck Bonham	Trout Unlimited
Jen Carville	Friends of the River
Russ Kanz	SWRCB
Sharon Stohrer	SWRCB

Dan Tormey has taken ill, so he was not able to make his slide presentation on wetted perimeter and dissolved gases. We will email his wetted perimeter materials to everyone prior to the next meeting. Dan will make his presentation at the January 10, 2001 meeting.

Russ – Spoke with USFWS, may change policy to require consultation for all studies.

Review of Bulleted Study Plans (continued)

Monitoring water temperatures over the winter for fish impacts. The project nexus for this would only occur where there is ongoing diversion during the winter. Mono Creek, Bear Creek, Hooper Creek, and Camp 61 Creek are the only creeks identified as having ongoing diversions in the upper basin during the winter. These could be outfitted with temperature recorders; however, there is no nexus at the other backcountry creek locations since the diversions are routinely turned out after base flows are reached during the summer. Therefore, winter temperature monitoring should not be required.

Recommendation: Start Numbering the study plans i.e.: CAWG # 1.

REVIEW AMPHIBIAN STUDY PLAN.

There is concern over the extent of the sample survey, will it be sufficient to capture everything. Two levels of study, reconnaissance level to identify habitat, then more detailed surveys would be developed for presence/absence.

What do you do if you do not find the species? How do you prove absence, even if there is habitat? This would have to be an adaptive design for the study, which we can not address until we are farther in the process.

COORDINATION WITH OTHER STUDIES.

Evaluate effects of controlled flow (augmented releases) on biological organisms in Project reaches. This could involve whitewater and PHABSIM coordination. Are there potential species take issues associated with this, which could require additional Section 7 consultation?

We should try to schedule these studies (needing high flows) during spill periods so we avoid the regulatory requirements associated with controlled release. However, some groups may want some controlled release studies during times other than during the spring spill events.

Biological studies in the spring during high flows are not feasible due to safety issues, and because biological conditions in the spring are different than those in the summer, which will yield different results that, are not comparable.

We need to develop specific objectives for this issue, which should be added to the matrix, and the study can be developed from that. We should develop a study plan (monitoring plan) and an adaptive management contingency.

Two issues, 1) ESA consultation with USFWS, and 2) flow augmented releases and the collection of information, to the extent possible, regarding impacts to other resources from these releases.

Everyone must complete a thorough review of the bulleted study plans and everyone should provide single text edits. Everyone should come to the meeting on the January 10th ready to work through the entire set of bulleted study plan outlines. Everyone should provide single text edits to Wayne by the middle of next week, if possible.

The meeting on January 10, 2001 will be from 10 AM to 6 PM.

Schedule another meeting or conference call near the end of January or beginning of February. Next meeting scheduled for February 5th. At this meeting we will review the first draft of the detailed study plans.

Agenda
Big Creek Combined Aquatic Working Group

Meeting at USFS Office
Clovis, CA
February 14, 2001, 1000 – 1800 hrs".

Teleconference Call-in number: 1-800-569-0883
Tell Operator: SCE Aquatic Working Group Call
Moderator: Wayne Lifton

- Review Notes of January 10, 2001 CAWG meeting
- Review **comments** on draft study plans (we will focus on these plans)
    - CAWG-1 Habitat Characterization
    - CAWG-5 Water Temperature
    - CAWG-4 Water Quality
    - CAWG-13 Water Use
    - CAWG-10 Macroinvertebrates
- NMFS Resource Interests, Goals, and Objectives
- Future Scheduling
- Other Business/Wrap Up/Review Action Items

Big Creek Collaborative

Combined Aquatic Resources Working Group

February 14, 2001

Meeting Notes

Time:	10:00 AM to 6:00 PM	**Moderator:**	Wayne Lifton
Location:	USFS Clovis Office	**Coordinator**:	
Teleconference No.:	1-800-569-0883	**Recorder**:	Martin Ostendorf
Teleconference Name:	Aquatic Wkg. Grp.	**Spokesperson:**	

Attended By:

Wayne Lifton	ENTRIX, Inc.
Ed Bianchi	ENTRIX, Inc.
Bill Pistor	Kearns & West
Martin Ostendorf	ENTRIX, Inc (Recorder)
Roger Robb	Friant Water Users Authority
Sharon Stohrer	SWRCB
Phil Strand	USFS SNF
Lonnie Schardt	Huntington Lake Association
Holly Eddinger	USFS SNF
Geoff Rabone	SCE
DanTormey	ENTRIX, Inc. (Water Quality, sediment, wetted perimeter portion)
Julie Means	CDFG
Chuck Bonham	Trout Unlimited
Steve Rowan	SCE
Russ Kanz	SWRCB
Dale Mitchell	CDFG
Larry Lockwood	SAMS

Telephone Participants

Jen Carville	Friends of the River
Steve Edmondson	NMFS (707) 575-6080
Rick Hopson	USFS

Handouts distributed to the group during the meeting:

- Meeting Agenda
- Draft January 10, 2001 Meeting Notes
- Draft Detailed Study Plans, CAWG Nos. 1, 4, 5, 10 and 13.

Opening Discussion, General Comments/Issues

- Comment period for Detailed Draft Study Plans has been extended to March 8th.
- An interim meeting will be scheduled before the next regularly scheduled March meeting.
- A Plenary Meeting will be scheduled in March and will be followed by working group meetings.

- The National Marine Fisheries Service (NMFS) has provided management goals and objectives for the ALP. Their input has not been incorporated into the current versions of the draft detailed study plans, however, they will be incorporated into subsequent version of the study plans and will be reviewed by the plenary.
- Written comments on the current study plans were received from Rick Hopson last week and from Holly Eddinger yesterday. Rick's comments have been incorporated into study plan handouts distributed at today's meeting.
- There was general discussion regarding the study plan review process. The study plans will be reviewed and approved by the working groups and sent to the plenary for approval. Upon approval by the Plenary group the study plans will be made available for review by the Tier 2 and 3 groups. Comments provided by the Tier 2 and 3 groups will be reviewed and addressed by the working group. Final study plan will then be sent to the plenary group for approval.
- There was a general discussion regarding the time frame to complete the study plan review. There was a general consensus that not all of the study plans will be completed in the expected time frame. A lot has been asked of everyone in a relatively short time frame. Everyone agreed that the working groups may only establish interim agreements for portions of select study plans. More data may be required to determine additional study plan needs and subsequently finalize study plans.
- Summary discussion on the protocols to be followed in order to track changes to the study plan documents.
  - Written comments provided by stakeholders/participants will be presented as per the communication protocols.
  - Written changes and comments received from stakeholders/participants will be indicated by underline for new text, and strike out for deleted text and attributed to the individual.
  - Everyone must make sure that their comments are accurately represented in the record (meeting minutes and single text edits)
  - Comments and changes agreed to by the working group during the meeting will be indicated by underline for new text, and strike out for deleted text and attributed to the working group meeting.

Review Agenda

This meeting focused primarily on the review of Draft Detailed Study Plans CAWG 1, 4, 5, 10 and 13.

A request was made that the agenda include a review of SCE's meeting with the U. S. Fish and Wildlife Service (USFWS) on February. This was added to the agenda.

Added to the agenda was a discussion on a planning matrix provided by representatives of the SWRCB. (This matrix was obtained from USFWS and was a helpful tool in the planning process).

Review January 10, 2001 Meeting Notes

Only a few comments were provided regarding the January 10, 2001 meeting notes, as follows:

- Much of the second page of the notes presents questions regarding the NFMS involvement in the process. Will thee be addressed during this meeting since Steve Edmondson is not present. Steve will calling into the meeting later and we will discuss these questions when he calls in.
- On page 6 of the notes in the wetted perimeter discussion it is indicated that the wetted perimeter method was successfully applied in the Sequoia and Inyo National Forests. It was

requested that information or reports of work completed in the Inyo National Forest be provided, (i. e. case study).
- Page 8 (Action Item). Assumptions will be added to the study plans. How will this be done? Assumptions will be identified and added by the working group during the individual study plan review.

Many of the group participants had not had an opportunity to review the meeting notes. Therefore, everyone was asked to thoroughly review the minutes and provide comments. ***Action item****:* Comments on the January 10, 2001 meeting minutes must be provided to Wayne Lifton by 2/21/01

Draft Detailed Study Plan Review

The following is a review of individual detailed study plans. Note: a handout containing copies of the Draft Detailed Study Plan was distributed to the working group participants (these contained comments provided by Rick Hopson.)

A general comment that was made that the study plans should be shortened and simplified. The superfluous information should be left out, (keep the important stuff and leave out the not so important stuff. Based on this comment the working group discussed the format of the study plans. The comments were provided on study plan format and content.

- The study plans need to be prepared for the common reader.
- We can reference to accepted practices instead of spelling it out.
- How is this different from the general approach? We will break down the general approach to identify the main points and identify the methodologies that will be applied.
- We need to allow as much time for editing as we did for preparation.
- Make the study plans succinct, clear and reference material (not rewrite-it in detail).
- Summary of discussion
  - Craft to a general audience
  - Reference general methodologies
  - Need for explanation why we are doing the studies
- Are we keeping a copy of all the documents that we are referencing in the study plans. We are currently developing a list of all the references in all the study plans and in the Initial Information Package.
- What is the level of detail we need? We are creating a record that needs this level of detail. Will this document be part of the FERC Application as a record of these proceedings?
- The final version of the study plans will be part of the application and public record for the project.
- If these are part of the public record then we will need the level of detail so that we don't have to recreate the proceedings. We need a complete record. Maybe the very detailed information can be in an appendix, and we can work off of complete succinct summaries to ease the review process. However, we can not afford to conduct the studies and have someone challenge the results without the detailed methodologies to back up the studies. Reference the detailed methodologies and include the detailed methodology write-ups in an appendix.

CAWG –1 Characterize Stream and Reservoir Habitats

When we get to meso-habitat mapping will it be Rosgen Level 3? No, it will be Rosgen level 1 based on Hawkins methodology.

Is there a separate study on large woody debris? It is included the sediment study.

What size (diameter) is considered large wood? Anything greater 6-inch is considered large woody debris.

The USFS brought to the meeting two copies of the protocols used by the USFS to classify woody debris. **Action Item:** Everyone to get copy of the protocol.

Do we need to study large woody debris? Yes, it is an important component.

Do we need a separate study for large wood or will it be part of an existing study? Study Plan CAWG 2 (Sediment Transport and Channel Maintenance) will study the effect of woody debris, and study plan CAWG –1 (Habitat Mapping) will characterize woody debris.

Woody debris is also a habitat issue not just a channel maintenance issue.
It is easier to address wood as a separate study plan.
It was suggested that a separate folder (study) within an existing study be developed for woody debris.
Page 4 of CAWG-1 discusses cover, and this where you may address woody debris.

Maybe we need to make subtext section in CAWG-1 which more clearly identifies the subsections. More clearly organize the study.

Several people agreed that we need to more clearly explain what we are doing, better organize the study, and make sure we are addressing the stakeholder management goals and objectives.

Need to add the habitat component of woody debris in the CAWG 2 study. Other participants suggested that it should be in CAWG 1 which covers a broader area, since CAWG-2 is focused on specific areas.

Action Item: Every one agreed to Bin List this discussion, ENTRIX will more clearly explain what is being done with the woody debris study, more clearly organize the study plan, and send it out to everyone for review.

Comment was made that all measurement should be in meters. All units should be consistent. The data was collected in feet using equipment calibrated in feet.

It was suggested that we show data in the format that the data was collected then show it parenthetically in meters.

Is Study Objective #8 the same as #5? Can we just incorporate this into #5 and eliminate #8.

What type of aerial photography have we conducted or will conduct? The USFS has some aerial photos for a period over more than 20 years and longer for some areas.

The SWRCB will want new IR photos (for the record), by the same contractor that did it on the Pit River. (Resolution is a pixel to a foot). The SWRCB provided a handout on the aerial photography. This aerial photography will provide very useful information.

Would this aerial photography be in lieu of ground based reconnaissance.

It would be used as a screening tool, to focus the ground truthing.

It was recommended and agreed to by the group that we have the SWRCB bring in the technology to look at it and review.

Action Item: Establish a subgroup to review this technology and coordinate with the other working group. Review the technology, how will it streamline the process, what are the trade-offs. Identify specific contractor for this aerial photography.

It was suggested that we also determine if the USFS will be doing any fly overs of the area in the near future.

CAWG-1, Page 3.

Overall comment. Much of the work described in the study plan has already been done. However, the CAWG needs to approve the work. This study plan is written in the context of work that is proposed and then at the end plan it states that the work has already been done. This should be stated up front. This work and the results need to come back to the CAWG for approval.

CAWG 1 is the father of all CAWG study plans and is the basis for most of the subsequent CAWG studies, hence this is very important.

Habitat mapping should also reference temperature profiling in addition to geomorphic structure and sediments.

CAWG-1, Page 4.

A memorandum is cited as a reference in the 2nd full paragraph, **(Action Item)** this needs to be changed to a primary reference.

The third paragraph contains a reference to visually classified. Is this actually measured or is it physically measured? (If not physically measured, then this is not an actual Rosgen characterization.) This is intended to be a general characterization. Study plan CAWG 2 will quantify reference reaches with physically measured sediments.

CAWG-1, Page 5.

First line, canopy cover measured to 10%. It was recommended that we should go to 5% using a spherical densiometer. The USFS handed out solar pathfinder document (SCI). Much more data will be collected in much more detail.

The 2nd sentence should be changed as follows: “the amount of woody debris or the lack there of…” (Add, the lack thereof).

Spawning habitat how is it characterized in relation to sediment accumulation? We will characterize sediment accumulation and retention and what is being entrapped in the upstream systems. We will do a visual assessment of sediment and source rock. In addition, Rosgen Level 2 site assessment described in the CAWG-2 plan and will be referenced in this plan.

CAWG-1, Page 6.

First paragraph, “will be determined in the field” is this based on professional judgement, and “the likely elevation” is speculative. Are we just guessing to determine these?

This is written in a positive light, do we want to open up all stream to fish migration up streams. This is a broader study, we need a comprehensive look at the management protocol to address

the species present and appropriate management practices. Not only analyze fish access but to collect data to address all resources.

CAWG-1,Page 7

The study area references Table CAWG-1-1. This table includes sites from the Portal Project and the Vermilion project, are were dealing with these sites in the ALP? These sites were put back in at the request of a stakeholder. (We will address SWRCB comment from Portal and Vermilion relicensing separately in those processes).

Are there differences in the ALP studies and the Portal and Vermilion Studies? There may be some minor differences.

In study area, where and what problem areas are there? The confluence of the North and Middle Forks San Joaquin River with the South Fork San Joaquin River have difficult access issues. We will ID specific stream reaches with these problems.

For fly over mapping in the wilderness areas are there any issues with flying in. We can land in the winter, but not in the summer.

CAWG-1, Page 8.

Holly – Table CAWG 1-1 add the year work was done for each of the entries.

CAWG-1, Page 10.

The last sentence indicates that much of this work has already been done, this should be stated early on.

Is this where we would insert assumptions, at the end of the study? We should insert assumptions where they apply.

On visual identification we assume that there will be discrepancies in the ID of cobbles and boulders and even habitat types. We need to indicate that we calibrate the data sets, and provide definitions indicating that we calibrate field teams so that everyone IDs things the same. We can add detailed descriptions and calibration data sheets in the Appendices

It was suggested that we may need more current reservoir bathemetry. We haven't identified if and when it would be done. What is the current bathemetry information? Current bathemetry is from when the reservoirs were built.

Detailed bathemetry studies may be beyond our scope. A GPS acoustic study will provide sufficient detail for water temperature for fish. Meso-habitat or micro habitat along shore lines is more of a habitat mapping issue

Would like to know when the most recent bathemetry survey were conducted. The edges of the reservoirs are the areas of issue. We will need to know the bathemetry changes due to changes in reservoir elevation levels.

Wayne – the amphibian survey study plan will likely have the level of detail that you want for the reservoir /lake margins and associated habitat issues.

Action item; Determine what bathemetry data is available.

Combined Aquatic Resources Working Group
Meeting Notes February 14, 2001

CAWG-5 Water Temperature

Page 1. No comment

CAWG-5, Page 2.

It was suggested that we renumber the pages such as CAWG 5-1.

General Approach #6. Change so it reads as follows: "Collect sufficient temperature data to evaluate the potential for using stored water in reservoirs to modify water temperatures downstream in various water year types".

Should we add an objective to evaluate ambient air temperature effects on water temperature? This type of data is incorporated in the water temperature model.

What about solar radiation data? We are collecting solar radiation data, this data will be accounted in the model. Table CAWG 5-4 on page 11 list location where solar radiation data is being collected?

General Approach No. 8, second sentence, should say conduct a reasonable controllable factor study (**Action Item**: SWRCB will look up language and provide appropriate language.)

CAWG-5, Page 3

The last sentence of the first paragraph indicates that we will collect sufficient data for the model whether or not modeling is needed. Reword this sentence. When rewording this be sure to include a reference to all water year types.

Action Item, We need to discuss water year types, and identify how many different water year types we need.

Define "Longer stream segment' in second sentence of General Approach to Data Collection. What is our criteria in determining a longer stream segment? Our criteria is based on the model protocols, we will cite the model protocols.

Will we need redundant temperature recorders? The CDFG has had theft problems. We will identify locations where redundant recorders are needed.

CAWG-5, Page 4

First sentence, 2nd paragraph we discuss 2001 data but don't include the 2000 data, we need to include the 2000 data.

Water temperature in reservoirs should extend into November for the lower elevation reservoirs (Mammoth and Redinger).

Are there maps showing temperature recorder locations? The USFS and SWRCB requested hard copies of the maps on the wall today. **Action Item** Send a shape file of the 2000 and 2001 temperature locations to USFS and CDFG, give hard copies to the SWRCB.

CAWG-5, Page 4 and 5.

Data collected hourly data on page 4 and monthly on page 5. Hourly data is collected with a electronic data logger, and month data in-situ measurement collected by hand.

CAWG-5, Page 5.

Have we agreed on a model? First issue, do we need to model, We are proposing to use SINTEMP from the USFWS. The SWRCB is a proponent of "Heat Source" developed by the Oregon Dept. of Game and Fish. (Russ to send URL for this web-site and model).

Add Heat Source model to the references section.

Action Item: We will take a look at "Heat Source" to determine it applicability and consideration for the project.

We need the meta data for the water years to be able to model the different water year types. Is there a need to establish a subgroup to determine which model to use? Who decides if a model is needed and which model to use?

We need to evaluate each model and determine the data needs for the different models, we need the flexibility to collect the correct data.

Dale we need to make sure that the model used can be run for a range of flow releases.

Action item: We need to identify and evaluate the different models available.

CAWG-5, Page 6.

Only one year of data collection proposed for one year. Is one year of data sufficient to calibrate the model? Will more data be needed such as for a dry year and wet year? A temperature year is best. Is there an incremental benefit to collecting additional data??

We don't need to collect data from the same temperature year. We only need to determine if data needs to be collected in 2001. If additional data needs to be collected then we would add to the study plan. Add language stating that additional data will be collected if needed.

Table CAWG 5-1 Temperature recorder location, the SWRCB reserves comments on the temperature locations in the table until a map is reviewed.

CAWG- 5, Page 12.

Forth paragraph first sentence, the SWRBC does not have a criteria, **Action Item:** Russ will provide different language.

Rick – comment on 2nd to last paragraph. Why normal conditions? Should we also look at hotter years? We can also look at warmer conditions.

CAWG-5, Page 13.

First paragraph 2nd sentence, Place period after natural warming, then delete the remainder of the paragraph. The back of this paragraph text is mitigation and is not part of the study plan. Should be deleted. Everyone agreed to remove this language.

Third paragraph. CAWG will determine which model will be used. Insert text, "or other appropriate models", after SNTEMP.

CAWG-5, Page 14.

Third paragraph, again there are other paragraphs. Insert text “or other appropriate models” at the end of the forth sentence.

Last paragraph, we don’t want to limit ourselves to only fish water release intakes.

The outlet valve modification should not be limited to cold water application should also be for volume.

CAWG-4 Chemical Water Quality

CAWG-4, Page 1.

No comments

Add a management objective: “Understand project impacts on water quality”. We need to find out if there are any overflows that can provide sediment to the river.

CAWG-4, Page 2.

General Approach No. 4, 3rd sentence, “If impact is project related….”. This is decision making and should not be included in a study plan.

Global change, Inland Surface Water Plan (ISWP) to CA Toxics Rule. The ISWP was rescinded in 1994, we should be referring to the CA Toxics Rule from March of Last year promulgated by the EPA) and should also look at the National Toxics rule.

CAWG-4, Page 3.

First paragraph last two sentences, Basin plan is to bold a statement. Delete last sentence.

Comment on the Anti-degradation requirement include statement here on anti-degration requirement.

We need to add reference to sluicing, including field work monitoring of these events to assure that we do not violate standards to determine if there is an impact.

CAWG-4, Page 4.

We need to take GPS readings at the sample sites. Add a sentence to this effect in the paragraph beginning “The field investigation…”.

CAWG-4, Page 5.

Fecal coliform samples five per month in the reservoirs. We should also collect the five sample per month in streams at locations where there is increased contact recreation. Collect one sample in all streams, then collect five samples at streams with heavy contact use.

SCE does not have control over streams in these wilderness areas. Where is the project nexus? There maybe a cumulative impact effect if downstream waters become impaired due to reduce in-stream flow from SCE diversions.

CAWG-4, Page 6.

A hazardous material spills assessment will need to be completed.

CAWG-4, Page 7.

Table CAWG-4, add silver to the table.

All metals should be done as dissolved not as total, with the exception of molybdenum and boron that are measured as totals.

Mercury, (is a concern), there are new protocols to measure in mercury in sediments during a storm event. There is also a fish tissue test protocol for mercury.

CAWG-8, Page 8.

Remove section on Determination of Mitigation measures. This is a decision making item and should not be in the study plan.

CAWG-4, Page 9.

Table CWAG 4.2. A map is needed showing the location of these sample sites. Action Item Develop a map depicting the sample locations. Send the shape files to USFS and CDFG, and a hard copy to the SWRCB. We also need ground truthing knowledge from USFS people with Knowledge of these locations. We will include Portal and Vermilion sample sites in the table.

CAWG-4, Page 11.

Schedule – may not get low flow conditions in the summer

Summary of USFWS Meeting on Monday February 12th

SCE met with Ms. Jesse Wild at the USFWS. She is the designated representative from the Endangered Species Act (ESA) group. Jesse she does not have relicensing experience. Her experience is focused primarily in desert issues. Jesse will try to attend the March meetings

Maria Borja attended the beginning of the meeting, and Gary Taylor was only there for a minute. Jesse and Maria were give a description of the project and Alternative Licensing Process (ALP) process, (before Maria had to leave).

Gary Taylor is trying to hire two more people to his department. However, there is a hiring freeze due to the administration change. For know will Jesse will be the USFWS representative. She will pressure Gary to help. However, his participation will be by addressing only specific issues needing his help.

The USFWS are interested in ESA and forest species. Did they give any indication if they would require consultation for the studies? No they did not. They encourage strongly that we include forest sensitive species in a Biological Opinion. They strongly recommend it.

We can consolidate specific issues and conference call Gary at during the last 15 minutes of each meeting. We should establish a group of people to develop a list of questions for Gary which need to be answered now in the process so we know where we are going. (**Action Item**: Geoff, Wayne and Dale to craft a list of questions).

We need to identify what kind of overlay there is with Steelhead

NFMS has mandatory conditioning in the process. NMFS spoke with Jim Fargo at the FERC and Jim assured him that NMFS has mandatory conditioning authority.

Action Item: Steve Edmondson (NMFS) will try and get in contact Gary Taylor's group at the USFWS.

Meeting Closure

Scheduling

The next CAWG meeting will be on February 26th (Monday) from 9 AM to 5 PM at the ENTRIX Office in Sacramento.

Action Item – Wayne will send out a revised version of these plans reflecting comments from today.

Roger Robb requested that we also review CAWG 6 on the 26th

Rick Hopson requested that we review the sediment transport on the 26th

Agenda
Big Creek Combined Aquatic Working Group

Meeting at Courtyard by Marriott in Modesto
1720 Sisk Road, Modesto, CA
April 19, 2001, 0900-1700 hrs".

Teleconference Call-in number: 1-800-569-0883
Tell Operator: SCE Aquatic Working Group Call
Moderator: Wayne Lifton

- Review comments on revised draft study plans (we will focus on these plans)
    - Plans not completed from April 18
    - CAWG-7 Fish Populations
    - CAWG-10 Macroinvertebrates
    - CAWG-3 Instream Flow
    - CAWG-1 Habitat
- Lunch Break at Noon

Comments on the following plans will be reviewed during the afternoon following the lunch break.

- CAWG-17 Passage
- CAWG-15 Anadromous Fish
- Aerial photography discussion, if material is available on time

- Future Scheduling
- Other Business/Wrap Up/Review Action Items

Big Creek Collaborative

Combined Aquatic Resources Working Group

April 19, 2001

Draft Meeting Notes

Time:	9:00 AM to 5:00 PM	**Moderator:**	Wayne Lifton
Location:	Courtyard by Marriot Modesto, CA	**Facilitator**:	Bill Pistor
Teleconference No.:	1-800-569-0883	**Recorder**:	Martin Ostendorf
Teleconference Name:	Aquatic Wkg. Grp.	**Spokesperson:**	

Attended By:

Wayne Lifton	ENTRIX, Inc.
Bill Pistor	Kearns & West
Martin Ostendorf	ENTRIX, Inc (Recorder)
Geoff Rabone	SCE
Steve Rowan	SCE
Sharon Stohrer	SWRCB
Julie Means	CDFG
Ed Bianchi	ENTRIX
Larry Lockwood	SAMs
Kevin Moody	USBR
Steve Rowan	USFS-SNF

Telephone Participants

Holly Eddinger	USFS-SNF
Phil Strand	USFS-SNF

Handouts distributed to the group during the meeting (distributed 4/18/01):

- Meeting Agenda
- Draft Meeting Minutes March 18, 2001
- Commented Detailed Study Plans, April 18 and 19, 2001

Draft Detailed Study Plan Review

The following is a review of individual detailed study plans. Note: a handout containing copies of the Draft Detailed Study Plan was distributed to the working group participants, during yesterday's meeting.

Combined Aquatic Resources Working Group
Draft Meeting Notes April 19, 2001

CAWG-7 Fish Populations

Page 7-1

Stakeholder Management Goal #2 should read, “Manage both cold water and warm water fisheries, including transitional zones and harvest vs. non-harvest species, where appropriate”.

Page 7-7

First partial paragraph question on sub-sample. Each sub-sample will consist of approximately 20 fish randomly drawn.

The units for data will be collected in both metric and English.

Will all fish be sampled for tissue?

Will we save fish for future studies? No we are not planning on killing any fish. We will only collect tissue samples for CDFG. We will do growth and scale analysis on the fish.

Second full paragraph first sentence, change “all non-hatchery” to “representative non-hatchery”.

Page 7-8

Whitewater Flow Assessment, first paragraph. The first sentence should be changed to read, “Fish sampling will be conducted on the fry of native trout, cyprinids and catostomids to assess the (negative or positive) effects of high flow releases that may be used to provide whitewater recreation”.

How do you evaluate the negative or positive effects? We will look for stranded fish and impacts to the fry population.

Whitewater Flow Assessment, second paragraph. The second sentence should read, “Three sites with substantial nursery habitat will be selected for sampling in a reach that will be subject to whitewater study flow releases”.

Whitewater flow assessment section – should we add a section on the consultation with other agencies. Is this referenced in the whitewater study and the amphibian study?

Page 7-10

Analysis section third paragraph, second sentence replace “specific project operations are having and effect on growth” with “differences can be observed”.

Page 7-14

References, update Reynolds reference.

CAWG-7 was approved by the group.

CAWG-5 Water Temperature

Page 5-8

Study Area third sentence, Insert the word proposed before the word “locations”.

Add the following sentence as the forth sentence, “The final locations to be determined by the CAWG”.

Analysis section third paragraph first sentence should read as follows, “ First we categorize the bypass reaches according to the results of water temperature monitoring into: 1) those reaches where upstream-to-downstream temperature increases appear to not be in compliance with the temperature objective of the basin plan; and 2) those reaches where upstream-to-downstream temperature increases appear to not be in compliance with water quality and temperature objective in the basin plan.

Page 5-9

Table CAWG 5-1, Adit 2, add parenthetical “(At Portal Forebay).

There is another major tributary – Willow Creek. This tributary has already been done in another study for the Big Creek No. 4 Project. We already have a calibrated model for this reach.

Add a footnote to the SJR at Horseshoe Bend reach as follows, “ Horseshoe Bend Reach from Dam 7 to Powerhouse 4 has been modeled using SNTMP and the model is available”.

Page 5-14

First full paragraph, first sentence should read, “For those reaches where temperature is observed to be above the temperature objective in the Basin Plan further analysis will take place”.

Fourth full paragraph, first sentence should read. “The third phase of this analysis involves stream temperature modeling to investigate the potential causes of warm temperature in the bypass reaches, as determined by the CAWG”. Delete the rest of the paragraph after the first sentence.

Page 5-16

Third partial paragraph, the first sentence should read, “In order to analyze the potential for water temperature control by Project reservoirs for downstream releases, the CAWG……”.

Page 5-17

First partial paragraph, add Forward Looking Infra-red (FLIR) to the list of reservoir temperature models.

Page 5-18

Coordination Needs, change from text format to a list of bullets.

Coordination Needs, add CAWG-10 Macroinvertebrates and CAWG-7 Fish Populations

General discussion on the study plan

The SWRCB reserves the right to see a map with all the temperature stations before approving the monitoring locations. The CAWG needs to meet to discuss the locations.

Update Table 5.1 Monitoring locations update.

Action Item – Complete the temperature monitoring location map.

Has last seasons (year 2000) data been complied? This data is still being processed.

Action Item – Temperature location map

Action Item – We will all be meeting on the Vermilion Project on May 8th. Lets take a hour on the 8th while we are together to review the temperature and water quality stations. Set time after the Vermilion meeting, everyone agreed that 4 PM work.

We need to have flexibility in the plan for adding stations based on data from last year.

Do we need to add another temperature monitoring location in Camp 61 Creek to determine the additional contribution of water from Adit #2 just below the confluence. Add this to the tributaries section in the table of water station locations.

CAWG-5 was approved by the group, with changes.

CAWG-10 Macroinvertebrates

A comment was made that Dr. Burke at Fresno State has done work in the Sierra National Forest. He may have some information of interest.

Are we evaluating the effects of high water spring run off or the whitewater boating study "Controlled flow releases"?

Page 10-2

Detailed Methodology second sentence, insert "ethnographic surveys" after SCE studies.

Field Data Collection, Site Selection first sentence, insert the word "help" before the word access.

Field Data Collection, Site Selection, second sentence should read, " To accomplish this objective, comparative macroinvertebrate sampling will be conducted.

Field Data Collection, Site Selection second paragraph, delete the first sentence.

Field Data Collection, Site Selection third paragraph, delete the first sentence.

Field Data Collection, Site Selection delete fourth, fifth, and sixth paragraphs.

Page 10-3

Macroinvertebrate Sample Collection, the second and third sentences should read as follows, "Either non-point source or spot sampling protocol will be used. A D-frame or other net, as approved by the CAWG, with a 0.5 mm net will be used.

Mollusk Sample Collection, first sentence replace macroinvertebrate with fish, and add "as agreed to by the CAWG'" at the end of the sentence.

How many sites will have mollusk sampling? We proposed to do one site at each macroinvertebrate sampling location. It was suggested that the site be determined by the CAWG and literature review (look for ethnography of historical occurrence).

Page 10-4

Whitewater Studies section, the first sentence should begin as follows, " Additional macroinvertebrate sampling may take place …..".

Page 10-5

Reservoirs section, add ", as feasible." to the end of the second sentence.

Laboratory procedure section first paragraph, delete the word "generally" from the first sentence.

Laboratory procedure section first paragraph add ", if possible." to the end of the sentence.

Laboratory procedure section, first paragraph forth sentence, after the word "identified" add the following text, "to the appropriate level of identification in the CSBP taxonomic effort".

Page 10-6

First full paragraph, replace the word macroinvertebrate with "fish".

Page 10-7

Coordination Needs. Change to bullet format, and add CAWG-4 Water Chemistry, and CAWG-11 Riparian.

CAWG 10 was approved with comments

CAWG-3 Instream Flow

Page 3-1

Move Stakeholder Management Goal #7 to Stakeholder Management Objective #7.

Page 3-2

First partial paragraph, third sentence change fish populations to "aquatic populations".

Page 3-5

The SWRCB wants a presentation of the transect selection methodology.

Page 3-7

HSC Selection and Verification

Add as third bullet, " If appropriate macroinvertebrate criteria are available, these will be used with the approval of the CAWG".

Would like to use other existing curves if possible. Concern was expressed about using curves from different regions of the country, we need to be cautious about the interpretation of the data and results when using these generic curves.

Add as the forth bullet, "If appropriate amphibian criteria are available, these will be used with the approval of the CAWG. In the absence of other criteria, fry criteria will be used".

Page 3-8

Third bullet change “Transect locations will” to “Transect locations may”.

Adit #2 Seepage add parenthetical (below Portal Forebay).

Page 3-12

Coordination Needs, change to bullet format, add CAWG-10 Macroinvertebrate and CAWG-8 Amphibians and Reptiles.

Do we need the Appendix. It is not part of the plan but should be included. It is subject to change. We need to check the plan for consistency and make sure the appropriate changes are made in the Appendix to assure the consistency.

CAWG-3 was approved with changes.

CAWG-1 Characterize Stream and Reservoir Habitats

The change made to this plan in the stream portion of this study reflects the data collected to date, and the reservoir section contains comments on sediments and bathemetry.

The USFS requested copies of the raw data from the studies already completed.

We need to make sure the Riparian study plan includes a GIS component.

Page 1-3

Add as last bullet of the general approach, “The CAWG will review the information collected to identify the need for any supplemental data collection”.

Page 1-9

Table CAWG 1-1, add Cold Creek and Warm Creek above Lake Edison as completed, and a partial on Boggy Meadow.

Page 1-12

Coordination Needs, change to a bullet format.

Page 1-14

Table A-1, Add culvert Additional Unit Designation.

CAWG 1 was approved with changes.

CAWG-9 Entrainment

General comments, this is one of those key studies that if you don’t have buy off on. It can be very contentious, you may have to go back and redo the studies, which may cost millions of dollars.

Page 9-1

Stakeholder Management Objective #2 should read, “Manage both cold water and warm water fisheries, including transitional zones and harvest vs. non-harvest species, where appropriate”.

Page 9-6

Will Portal Forebay be included in the study area. Entrainment from the forebay will be captured at the powerhouse.

Page 9-8

Coordination Needs, change to bullet format.

We have buy in on this plan from everyone except USFWS. The USFWS has hired a new person that will start on Big Creek immediately. We need buy in from the other personnel in the USFWS also. Is NMFS involved? NMFS is involved in the anadromous fish study.

What is the sampling frequency that you we will be checking nets at the small diversion. We will sample a representative subset of small diversions, set up (see page 9-5) for about three days and nets will be checked on a 12 to 24 hour basis.

CAWG-9 was approved with changes.

CAWG-17 Fish Passage

Page 17-1

Stakeholder Management Objective #1 should read, “Manage both cold water and warm water fisheries, including transitional zones and harvest vs. non-harvest species, where appropriate”.

Project Nexus, first sentence should read “In channel structures or conditions may impede the migration of aquatic life”.

Page 17-2

Bullet #4, first sentence should read, “ Information resulting from CAWG Study Plans 1 and 7 (Stream and reservoir Habitat Characterization and Fish Populations, respectively) will be used to evaluate if population or communities effects are observed under the current level of passage”.

Add general approach #2, “If mussel pops are encountered the effect of fish passage will be evaluated on those populations as well”

Page 17-4

Strike out Adit #2 Seepage. Add footnote to table, “The Adit 8 diversion is not included because it is not an ephermal stream”.

Page 17-5

Third full paragraph, the first and second sentences should read, “Data collected during the fish population and habitat mapping surveys (CAWG-7 and 1, respectively) will be considered relative to upstream and downstream potential fish passage barriers. Comparisons of populations and

available aquatic habitat could determine if fish passage barriers are likely affecting the viability of fish populations".

Page 17-6

Coordination Need, change to bullet format, and include CAWG-10 Macroinvertebrates.

CAWG-17 was approved with changes.

CAWG-4 Chemical Water Quality

Rick Hopson (USFS-SNF) provided written comments prior to today's meeting.

> Page 4-3, Existing Water Quality Standards 2nd paragraph, last sentence. The lower numeric objective should state: "The most stringent objective….because the lowest standard is not always the most desirable".
>
> Page4-4, 1st partial paragraph. The new statement "reservoir and small impoundment sampling described in the next section will serve as upstream samples water quality samples". I disagree, we should collect the upstream water quality samples separate for the impoundment sample.
>
> Page 4-4, 1st complete paragraph, 2nd sentence beginning with, "For moderate diversion dams….." Same comment as above.
>
> Page 4-6, 1st paragraph under "Characterization of Sediment & Contaminant Sources". The addition, 3rd sentence, "SCE's hazardous material spill record…." If so, please state as such. The sentence has been changed to indicate the hazardous materials spill record.
>
> Page 4-8, under study area, add to the end, "Site specific water quality sampling locations will be identified and approved by the CAWG".
>
> Page 4-9, Table CAWG 4-2. Why do camp 61 Creek and Adit 8 Creek have 0 samples? Because they are not part of the ALP? If so, consider removing from the Table or adding all other water quality monitoring site within study plans for the non-ALP projects.

Comments received and edits made during the meeting.

Page 4-1

Stake Holder Management Objective # 7. Should read, " Understand potential Project impacts of Project maintenance and operations on chemical water quality".

Study Objective #1, DO should be spelled out, "Dissolved Oxygen"

Page 4-4

First partial paragraph, strikeout, delete the following sentences, "~~These samples will be collected immediately upstream and down stream of those structures. Reservoir and small impoundment sampling described in the next section will serve as upstream water quality samples.~~"

Second full paragraph, first sentence insert the word " , impoundment's" following bypassed reaches.

Second full paragraph, delete all text after the first sentence through the sentence beginning with, "Within the reach, …".and replace the deleted text with the following text.

"Samples will be taken as follows:

- for small diversions samples will be collected upstream of the diversion;
- for moderate diversions samples will be collected in the diversion pool and up stream of it's influence;
- for reservoirs samples will be collected in the reservoir and the small streams above the influence of the reservoir

Second full paragraph, last sentence, change "samples" to additional samples".

Third full paragraph, second paragraph, add pH to the list of in-situ measurements.

Third full paragraph, insert the following sentence following the second sentence. "A water depth will be measured at the stations".

Third full paragraph, second to last sentence, reference to watercraft should be changed to motorize watercraft.

Page 4-5

First full paragraph, second sentence change "polls" to "pools"

First full paragraph, fifth sentence should read, "Mammoth Pool has a drop of approximately 330 feet.

First full paragraph, last sentence delete parenthetical "(federal water quality standard)".

Page 4-6

First full paragraph should read as follows: "For all reservoir site samples fecal coliform sampling will be conducted as described in the basin plan and shall be collected at near shore areas. The fall sampling shall be conducted in the 30-day period including Labor Day."

Second full paragraph, there is reference stating that water quality parameters will be measured at 5-meter intervals. This should be changed to 3-meter intervals.

Second full paragraph, insert the following text as the last sentence, " Sampling of fish tissue for mercury and silver will be conducted in Mammoth Pool using non-hatchery harvest species after consultation with OEHA.

Last partial paragraph, insert "sluicing activities," after "storage areas".

Page 4-7

First paragraph second sentence SCE's spill record should be "SCE's hazardous materials spill record".

First paragraph, delete last sentence which begins with "Monitoring of the Bear Creek….".

Study Area section, add the following sentence to the end of the paragraph, "Site specific water quality sampling locations and numbers will be identified and approved by the CAWG".

Analysis section, first sentence delete the word “reservoir”, and add “,where appropriate” to the end of the sentence.

Project Effects on Water Quality section, the first sentence should now read as follows:

The data collected in the previous tasks will be used to:
1) assess sediment and water quality in the project area;
2) identify project operations and maintenance activities that may effect water quality; and
3) identify how project operations influence the bioaccumulation of mercury and silver.

Project Effects on Water Quality section, delete the two following sentences that begin with “The analysis will identify….” and “The specific Project effect will be determined”.

Comment was made that sediment analysis for mercury and silver should be done before the Bear Creek sluicing event is performed.

Page 4-8 Table 4-1

Include dissolved metals analysis for all metals except for molybdenum

Add pH analysis.

Page 4-9 Table 4-2

Large Dams – Add Mono Creek below Vemilion

Moderately-sized Diversions - Add Balsam Forebay, and Portal Forebay

Small Diversions – Add Warm Creek, Upper Mono Creek, Cold Creek, and Adit 2.

Flow Augmented Streams – Add Boggy Meadow.

Footnote streams that are associated with project that are following the Traditional Licensing Process

Footnote – Stream or creeks that are ephemeral.

Change column heading from “Number of Sample Locations” to “Proposed Sample Locations”

Action Item: There will be a meeting in May 8 at the ENTRIX Sacramento Office at 4 PM to discuss water quality sampling sites and temperature monitoring locations. Before this meeting SCE will post a map of the sample and monitoring locations on the SCE Hydro web page.

CAWG 4 was approved with changes

CAWG-15 Anadromous Fish.

Change title to Salmonids

Page 15-2

The ending of the first partial paragraph should read, The operation of Friant Dam at Millerton Lake affects the availability and quality of water to the San Joaquin River. Federal agencies and their partners are currently studying the feasibility of restoring fall run Chinook, spring run Chinook, and steelhead.

Page 15-4

Coordination Needs change to a bullet format.

General discussion

CDFG is circulating this study plan through their department and compiling comment. They are not ready to approve the study plan

This plan was not approved by the CAWG and is pending additional comments.

Bin Item/Action Item: 1) Get additional comment from CDFG and NMFS. 2) CAWG Approval

General Comment of Process

Approved study plans fall in to the approved category with those plans from the other group. The approved plans will go to the plenary and public for review. However, we need to get everyone's input on approving the Stakeholder Management Goals and Objectives to go into the study package.

There will be a 30 day comment period after the plans are be sent out.. And a public meeting will be held half way through the 30 study plan comment period. We need to issue a 15 day public notice for the public meeting this will dictate when the meeting will be held because this notice will be sent when the plans are sent out.

Bin List Items

CAWG-2
- Obtain comments from everyone.
- ENTRIX will re-write plan with geomorphologist review.
- Set up teleconference call for subgroup review, (Ed, Russ, Julie T., Sharon, Julie M., Kevin, Dan and Wayne)
- Obtain final CAWG approval

CAWG 15
- Obtain review comments from NMFS and CDFG and edit plan accordingly.
- Email back to group for review.
- Obtain final CAWG approval.

Water temperature monitoring locations and water quality sampling location need to be determined by the CAWG. A map will be provided which depicts the locations. The group will reconvene on May 8th in Sacramento to review monitoring and sampling location.

Action Items

New Stakeholder Management Goals and Objectives from USFS must be incorporated into the study plans.

Bear Creek Sluicing Effort should not be part of the study plans and coordinated with the agencies under a separate effort.

Provide raw water temperature monitoring data from 2000 studies to the USFS once it has been reviewed.

Ward tunnel bedrock fractures, groundwater and riparian area relationship. (Subgroup to review Jerry De Graff, Dan, Janelle, Julie M., Rick, and Julie T.)

Review Land Management Volcanic and Seismic Study, and provide comments to Brenda Peters if any.

Temperature Monitoring Stations/Water Quality Sampling Location Map to be completed and sent to the group for review.

Provide reference document mollusk sampling to Kevin.