

Kern No. 3 Project (FERC Project No. 2290)

Updated Study Report Meeting

October 23, 2024; 12:30 PM – 4:00 PM



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Land Acknowledgement

SCE would like to take a moment and recognize that the Kern River No. 3 Hydroelectric System is located on the Tübatulabal and Kawaiisu Tribe's traditional lands which they have stewarded for generations.



Updated Study Report (USR) Meeting Agenda

12:30 PM – 12:50 PM

Welcome, Safety, & Guidelines
Introductions
Purpose and Objective of Meeting
Project Overview & Schedule

12:50 PM – 3:30 PM
(10 min Break)

Status of Technical Study Plan Implementation

- Cultural and Tribal Resources
- Water Resources
- Biological Resources
- Land Use / Operations
- Recreation Resources

3:30 PM – 3:55 PM

Proposed Study Modifications or New Studies

3:55 PM – 4:00 PM

Next Steps

Meeting Guidelines

- Speak one at a time when prompted
- Please be concise
- Refrain from personal attacks

Remember, this is not the only opportunity
to comment on the USR

Kern River No. 3 (KR3) Project Team Introductions

- Southern California Edison (SCE)
 - Stephanie Fincher-DeMillo, Project Manager**
 - Martin Ostendorf, Sr Licensing Manager**
 - Dan Keverline, KR3 Area Manager**
 - Karen Whiteside, Sr. Licensing Advisor**
 - Audry Williams, Cultural Resources Specialist
 - SCE Legal Counsel, Charlies Sensiba**
- Environmental Resources Management (ERM)
 - Jillian Roach, Project Manager**
 - Sergio Capozzi, Recreation/Aesthetics/Angling**
- Kleinschmidt Associates
 - Angela Whelpley, Recreation
 - Carl Mannheim, PE, Project Infrastructure
- Stillwater Sciences (SWS)
 - Russ Liebig, Aquatics Specialist**
 - Melissa Lane, Hydrology**
 - Christina Buck, Water Quality
 - Holly Burger, Amphibians
- River Science Institute
 - John Gangemi, Whitewater Resources

Updated Study Report Meeting

- Filed Updated Study Report (USR) on October 8, 2024
- Purpose of USR Meeting:
 - Report 2nd year data collection progress and high-level results of FERC-approved studies
 - Identify study plan variances/modifications
 - New or modified study proposals
- Today's meeting is NOT to:
 - Discuss 1st year studies (ISR), PM&Es, comments on DLA
- SCE will file high-level meeting summary with FERC (Nov. 7th)
- Any Relicensing Participant detailed comments and/or study modification requests should be e-Filed with FERC

KR3 Project Overview and Relicensing Schedule

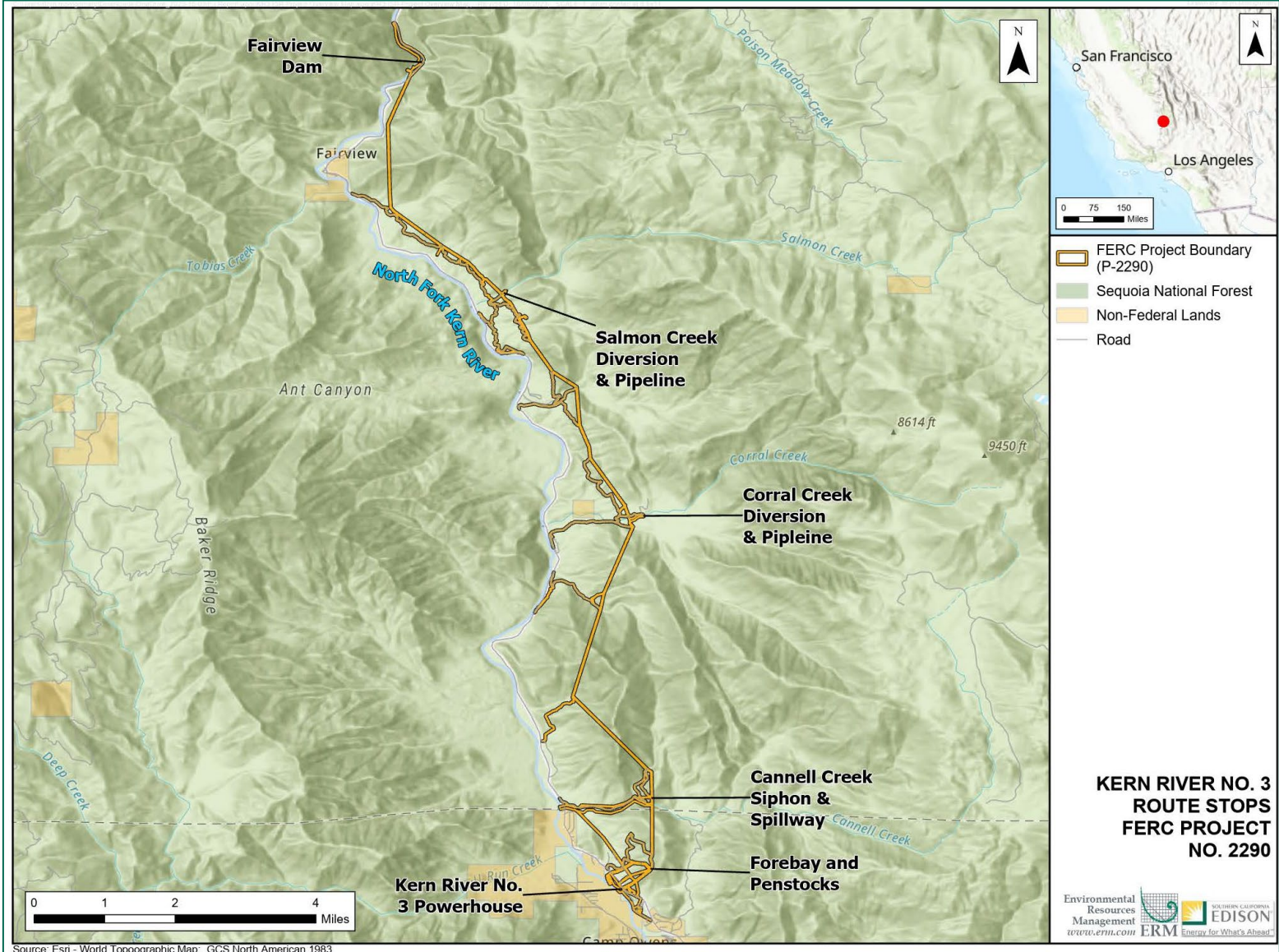
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Kern River No. 3 (KR3) Project

- Current License Expires on November 30, 2026
- Dependable Generating Capacity is 36.8 MW
- Located in Tulare and Kern Counties primarily within Sequoia National Forest (SQF)
- Run-of-River Operations
- Key Project Elements
 - Fairview Dam and Sandbox
 - Salmon Creek Diversion
 - Corral Creek Diversion
 - Stream Gages (Kern River & Adit 6/7)
 - Cannell Creek Siphon
 - Conveyance Flowline
 - Pressure Flume, Forebay & Penstocks
 - Kern River No. 3 Powerhouse

KR3 Project Area



FERC Relicensing Schedule: Post ISR (Revised 2/2024)

Due Date	Responsible Party	Milestone	FERC Regulation 18 CFR§
Fall 23 - Summer 24	SCE	Conduct Second Study Season	5.15(a)
12/11/23	Stakeholders	File Disagreements/Requests to Amend Study Plans*	5.15(c)(4)
1/10/24	Stakeholders	File Responses to Disagreements/Amendment Requests*	5.15(c)(5)
3/2/24	SCE	Files Study Results for REC-1 and REC-1 (Filed 3/1/2024)	5.16(a)-(c)
4/1/24	Stakeholders	File Any Additional Disagreements/Requests to Amend Study Plans*	5.15(c)(4)
5/10/24	Stakeholders	File Responses to Any Additional Disagreements/Amendment Requests*	5.15(c)(5)
5/31/24	FERC	Issue Director's Determination on Disagreements/Amendments*	5.15(c)(6)
7/3/24	SCE	File Draft License Application (Filed 7/1/2024)	5.16(a)-(c)
10/1/24	Stakeholders	File Comments on Draft License Application	5.16(e)

*Dispute resolution if needed

FERC Relicensing Schedule (Revised 2/2024)

Due Date	Responsible Party	Milestone	FERC Regulation 18 CFR§
10/11/24	SCE	File Updated Study Report (Filed 10/8/2024)	5.15(f)
10/28/24	SCE	Updated Study Report Meeting (Held 10/23/2024)	5.15(f)
11/11/24	SCE	File Study Report Meeting Summary (est. 11/7/2024)	5.15(f)
11/30/24	SCE	File Final License Application	5.17
12/10/24	Stakeholders	<i>File Disagreements/Requests to Amend Study Plans*</i>	5.15(f)
1/9/25	Stakeholders	<i>File Responses to Disagreements/Amendment Requests*</i>	5.15(f)
2/10/25	FERC	<i>Issue Director's Determination on Disagreements/Amendments*</i>	5.15(f)
12/30/24	FERC	If necessary, issues deficiency letter for FLA	5.20
TBD	FERC	Issues letter requesting additional information on the FLA, if necessary	5.21
TBD	FERC	Issues Ready for Environmental Analysis	5.22

*Dispute resolution if needed
Green: Post FLA

FERC Approved Study Plan Implementation

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FERC Approved Study Plans

Technical Study Plan	
WR-1 Water Quality*	REC-2 Recreation Facilities Use Assessment*
WR-2 Hydrology*	REC-3 Recreation Facility Condition Assessment
BIO-1 Foothill Yellow-legged Frog	CUL-1 Cultural Resources
BIO-2 Special Status Salamanders	TRI-1 Tribal Resources
BIO-3 General Wildlife Resources	Land-1 Road Condition Assessment
BIO-4 Benthic Macroinvertebrate	GEO-1 Erosion and Sedimentation
BIO-5 Western Pond Turtle	OPS-1 Water Conveyance Assessment
BIO-6 Stream Habitat Typing	AES-1 Aesthetic Flows*
BOT-1 Botanical Resources	ANG-1 Enjoyable Angling Flows*
REC-1 Whitewater Boating*	EJ-1 Environmental Justice

*Revised or new study plan elements per FERC's May 30, 2024 determination on requests for new studies and modifications to the approved Study Plan.

Initial Study Report: Completed Study Plans/Plan Components

Study Plans/Plan Components*	
WR-1 Water Quality (temp/DO '21-'23; bacterial F'22; F'23)	REC-3 Recreation Facility Condition Assessment
WR-2 Hydrology (hydrology analysis '97-'21, CEFF Part A)	Land-1 Road Condition Assessment (Road Condition Assessment)
BIO-2 Special Status Salamanders	GEO-1 Erosion and Sedimentation
BIO-3 General Wildlife Resources	OPS-1 Water Conveyance Assessment (Phase 1)
BIO-5 Western Pond Turtle	EJ-1 Environmental Justice
BIO-6 Stream Habitat Typing	CUL-1 Cultural Resources ¹
BOT-1 Botanical Resources	TRI-1 Tribal Resources ¹
REC-1 Whitewater Boating (Level 1 and Level 2)	

*Final Technical Memoranda filed on October 9, 2023, or as part of supplemental filings on January 9, 2024 and March 1, 2024.

¹Draft Documents submitted to Forest Service and Tribes for review

Updated Study Report: Completed and Ongoing Study Plans/Plan Components

Completed Study Plans/Plan Components with USR

WR-1 Water Quality	REC-2 Recreation Facilities Use Assessment
WR-2 Hydrology	LAND-1 Road Condition Assessment
BIO-1 Foothill Yellow-legged Frog	OPS-1 Water Conveyance Assessment
BIO-4 Benthic Macroinvertebrates	AES-1 Aesthetic Flows
REC-1 Whitewater Boating	ANG-1 Enjoyable Angling Flows

Ongoing Study Plans/Plan Components

REC-2 Recreation Facilities Use Assessment: Camera Study

Cultural/Tribal Resources

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CUL-1 Cultural Resources & TRI-1 Tribal Resources

Status of TSPs and TSRs

- Cultural and Tribal resource studies consist of: CUL 1 – Archaeology and Built Environment TSRs, and TRI 1 – Tribal Resources TSR
- Reports submitted to USFS and Tribes in April 2023, results summarized in the DLA.
- Currently addressing comments from the DLA, updating report with additional field work results
- Submittal to State Historic Preservation Officer (SHPO) is expected November 2024

Historic Properties Management Plan

- Currently drafting HPMP, which will include the following:
 - Incorporate results from the cultural and Tribal resource studies
 - Include measures to avoid, minimize, or mitigate adverse effects to cultural and Tribal resources that may be affected by continued O&M activities.
 - Outline implementation procedures such as management roles and responsibilities, Tribal and agency consultation, project review requirements, implementation protocols including annual meetings and reporting, as well as processes for revision of the HPMP and dispute resolution.
 - Draft HPMP to be submitted with the FLA
 - Final HPMP will incorporate comments received from USFS, Tribes, and SHPO

Questions?

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Water Resources

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WR-1 Water Quality (Att. A)

- Study Elements Completed
 - Water temperature and dissolved oxygen (DO)
 - May – October 2021; May 2022 – May 2023 (reported in ISR)
 - October 2023 – September 2024
 - Bacteriological Monitoring
 - Collected samples September 6–26, 2022 and August 8–September 5, 2023 (reported in ISR)
 - Collected samples June 6– July 10 (July 4th weekend) and August 13– September 10 (Labor Day weekend) 2024
- Ongoing/Outstanding Study Elements
 - None

WR-1 Water Quality, cont.

- Variances
 - Water Temperature and DO
 - High flows affected safe access and sedimentation of instruments and resulted in equipment loss and some data gaps in the continuous data record.
 - To remedy data gaps, loggers were redeployed from October 2023 through September 2024.
 - Bacterial sampling
 - Additional bacterial samples were collected in fall 2022.
 - Additional samples for *Escherichia coli* (*E. coli*) were collected in 2024 to determine compliance with an adopted amendment of the water quality objective in the Water Quality Control Plan.
 - Bacterial samples could not be collected at Corral Creek upstream of the NFKR between July 10 and September 10, 2024, because the stream was dry
- Modifications to Ongoing Study
 - None

WR-1 Water Quality, cont.

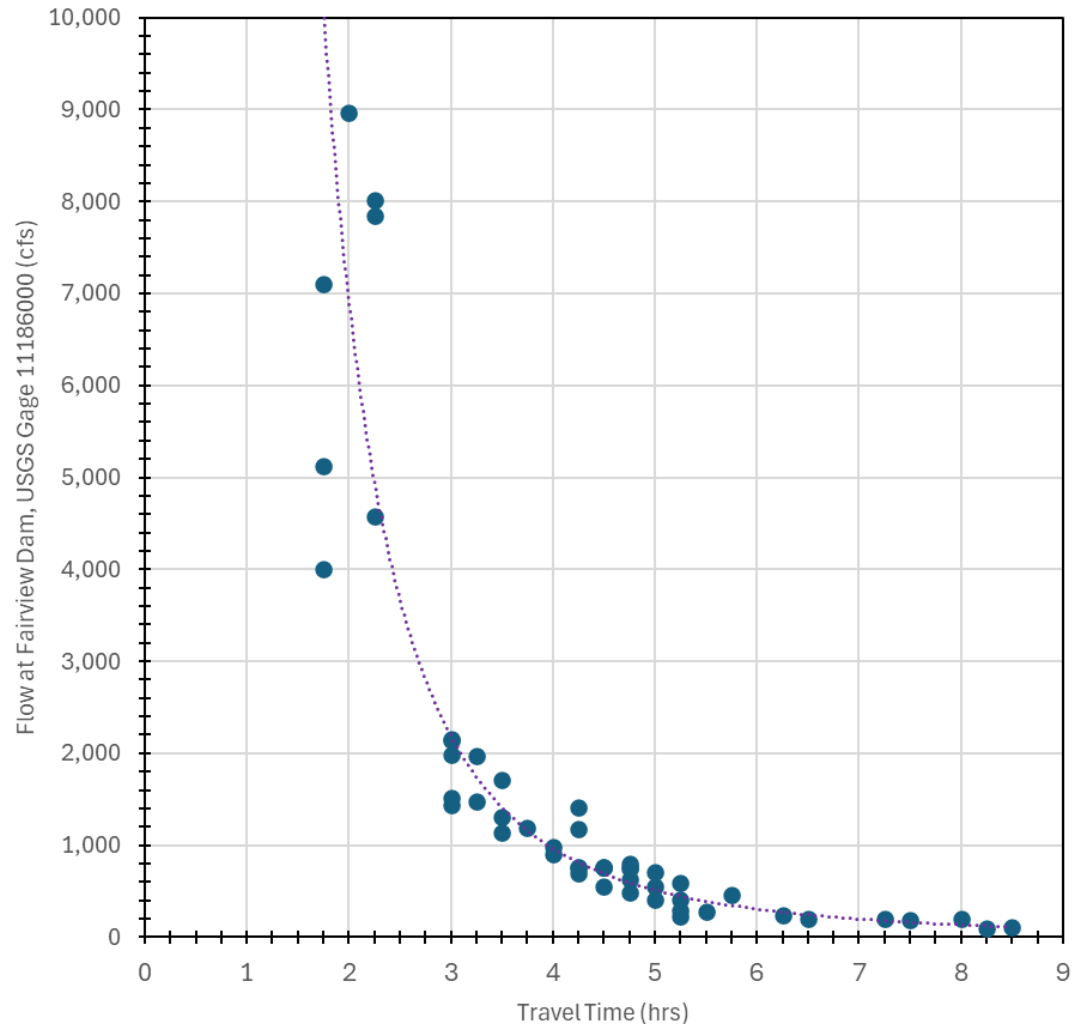
- Key Study Results
 - Water Temperature
 - Water warms from upstream to downstream
 - Seasonal variation with cooler temperatures in winter and warmer temperatures in summer
 - Dissolved Oxygen
 - DO levels generally follow seasonal patterns, decreasing with increased water temperatures
 - Bacteriological Monitoring
 - All samples show generally low levels of fecal coliform, increasing following rain events
 - Fall 2022 (1.1–16 MPN/100 mL)
 - Late summer/fall 2023 (2–230 MPN/100 mL)
 - Summer (July 4th) 2024 = all samples <1.8 MPN/100mL
 - Late Summer/fall (Labor Day) 2024 = all samples <1.8 MPN/100 mL

WR-2 Hydrology (Att. B)

- Study Elements Completed
 - Review and disseminate hourly gage data WY2022 and 2023 (posted on website June 1, 2024)
 - Summarized existing data for flows and diversions in Salmon and Corral Creeks
 - Estimated flow travel times along the NFKR between Fairview Dam and KR3 Powerhouse
 - Described Cannel Creek Spillway and Forebay Spillway operations
 - Calculated theoretical hydrology excluding extended Project outages
- Variances and Ongoing/Outstanding Study Elements
 - None

WR-2 Hydrology, cont.

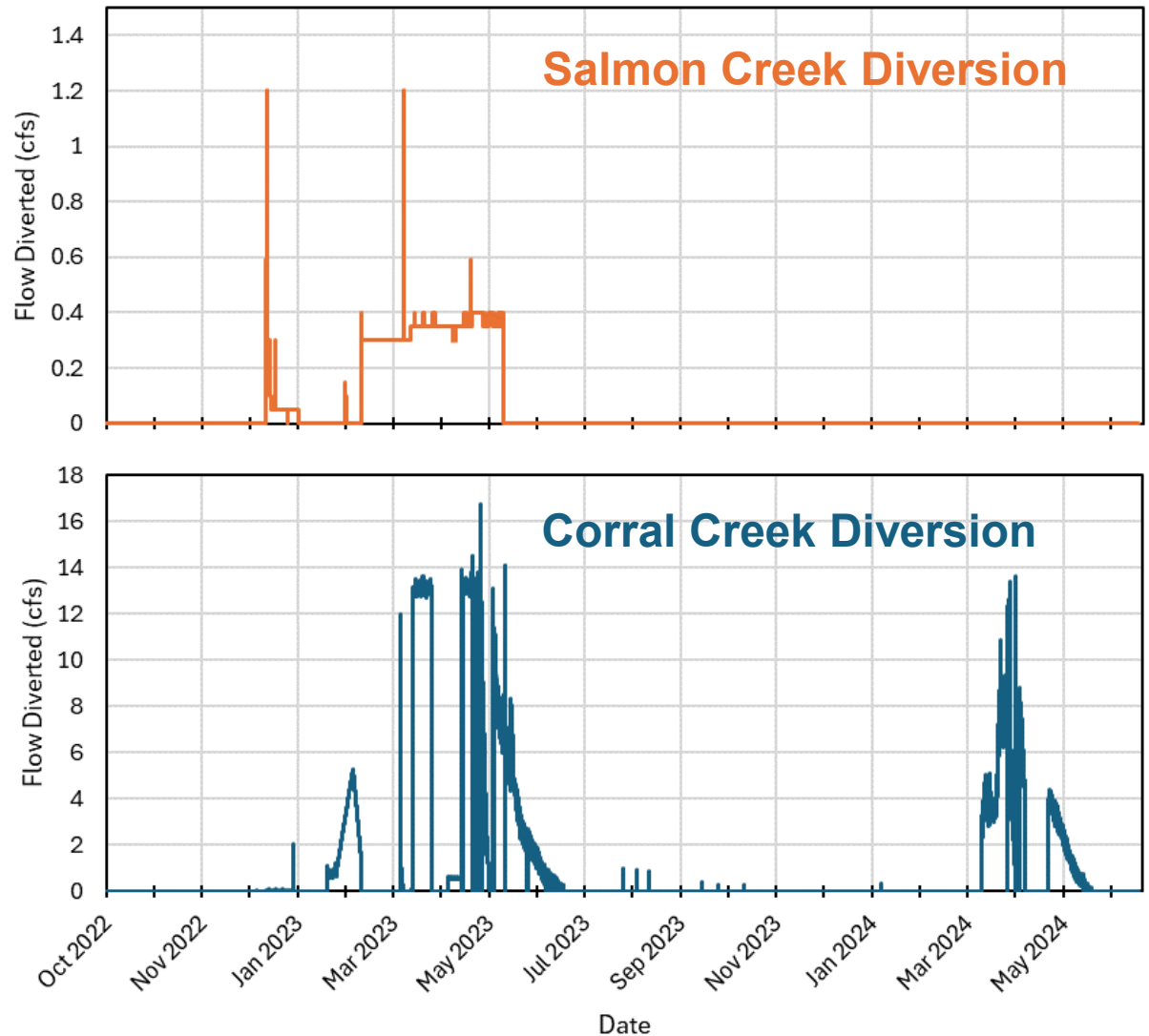
- Key Study Results- Flow Travel Times



WR-2 Hydrology, cont

- Key Study Results- Salmon and Corral Creek Flows

- Streams are intermittent
- Inflow < MIF 83% and 77% of time for Salmon and Corral Creeks



WR-2 Hydrology, cont.

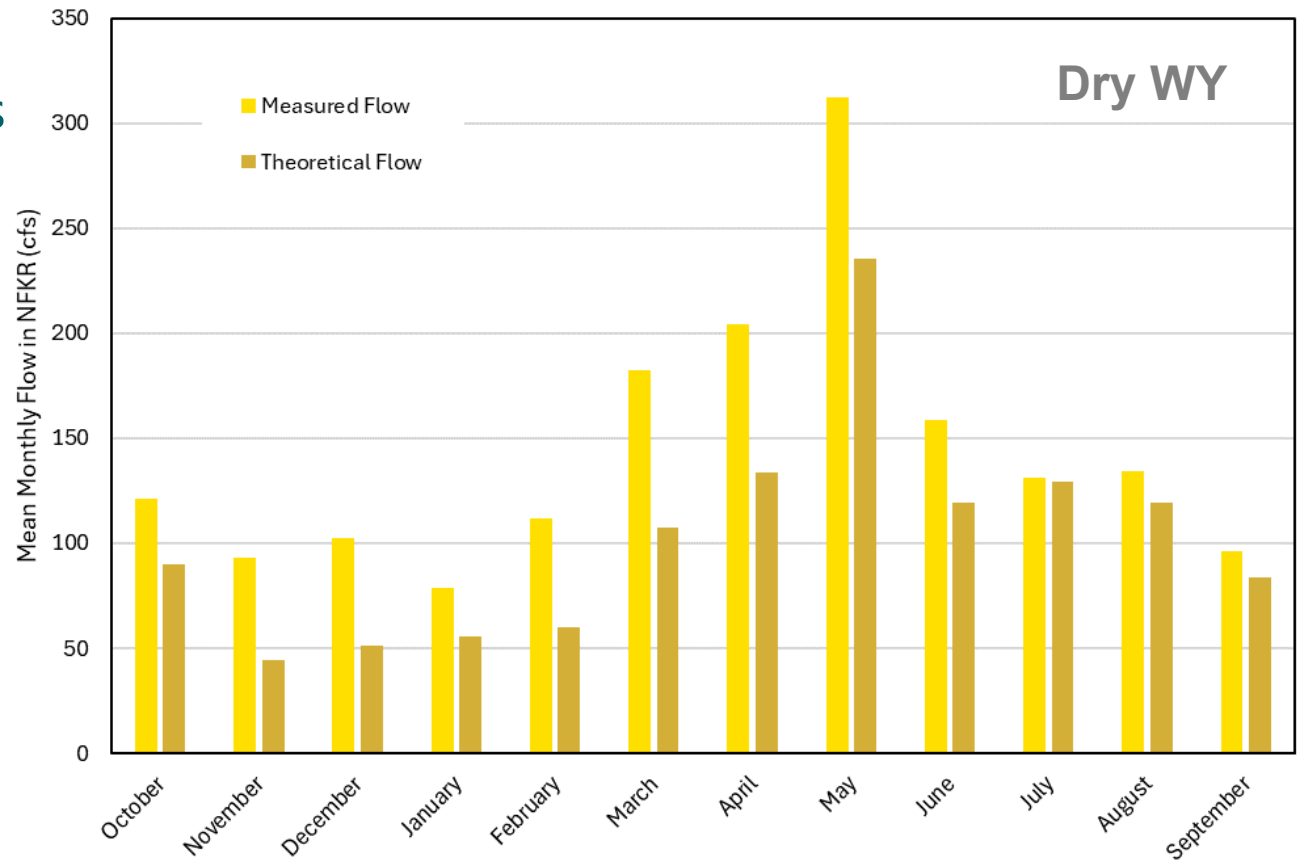
- Key Study Results- Cannell Creek Spillway and Forebay Spillway Operations

Reasons for Spill Event	Cannell Creek Siphon Spillway Events				Estimated Potential Spill Flows at Each Spillway			
	Count of Events	Sum of Minutes	Percent Sum of Minutes (%)	Average of Minutes per Event	Count of Events	Minimum	Mean	Max Instantaneous
Flushing ^a	7	223	3	32	7	17	48	101
Pause generation due to turbid water	5	1,260	14	252	4	38	177	289
Forced outage	11	4,240	48	385	9	8	91	161
Pause generation for penstock maintenance	5	1,230	14	246	4	32	55	83
Scheduled Outage	6	1,855	21	309	6	5	92	269
Total	34	8,808	100	--	30	5	92	289

WR-2 Hydrology, cont.

- Key Study Results- Theoretical Hydrology Excluding Extended Project Outages

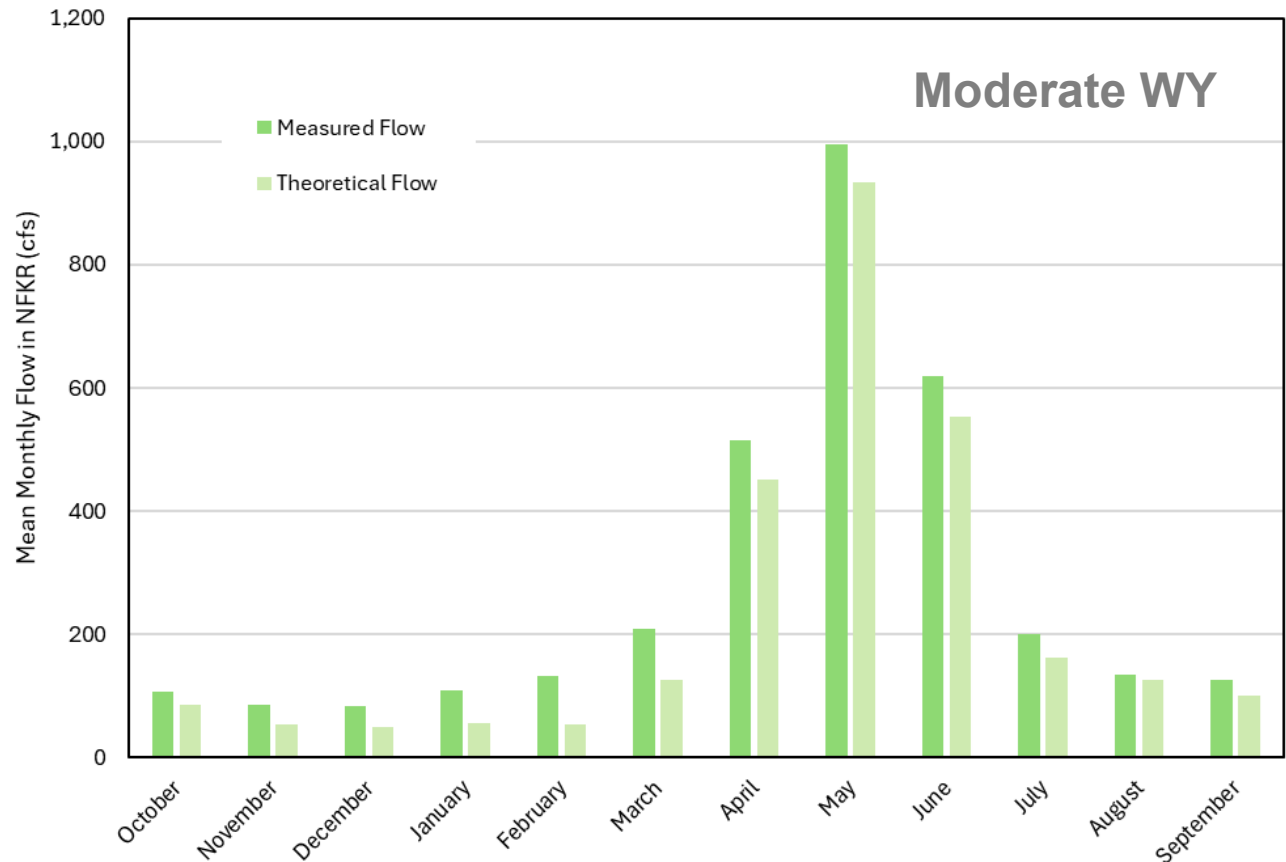
- Theoretical flows reassigns measured flows during extended outages
- Assumes no boating flows
- Assumes no CDFW hatchery diversion



WR-2 Hydrology, cont.

- Key Study Results- Theoretical Hydrology Excluding Extended Project Outages

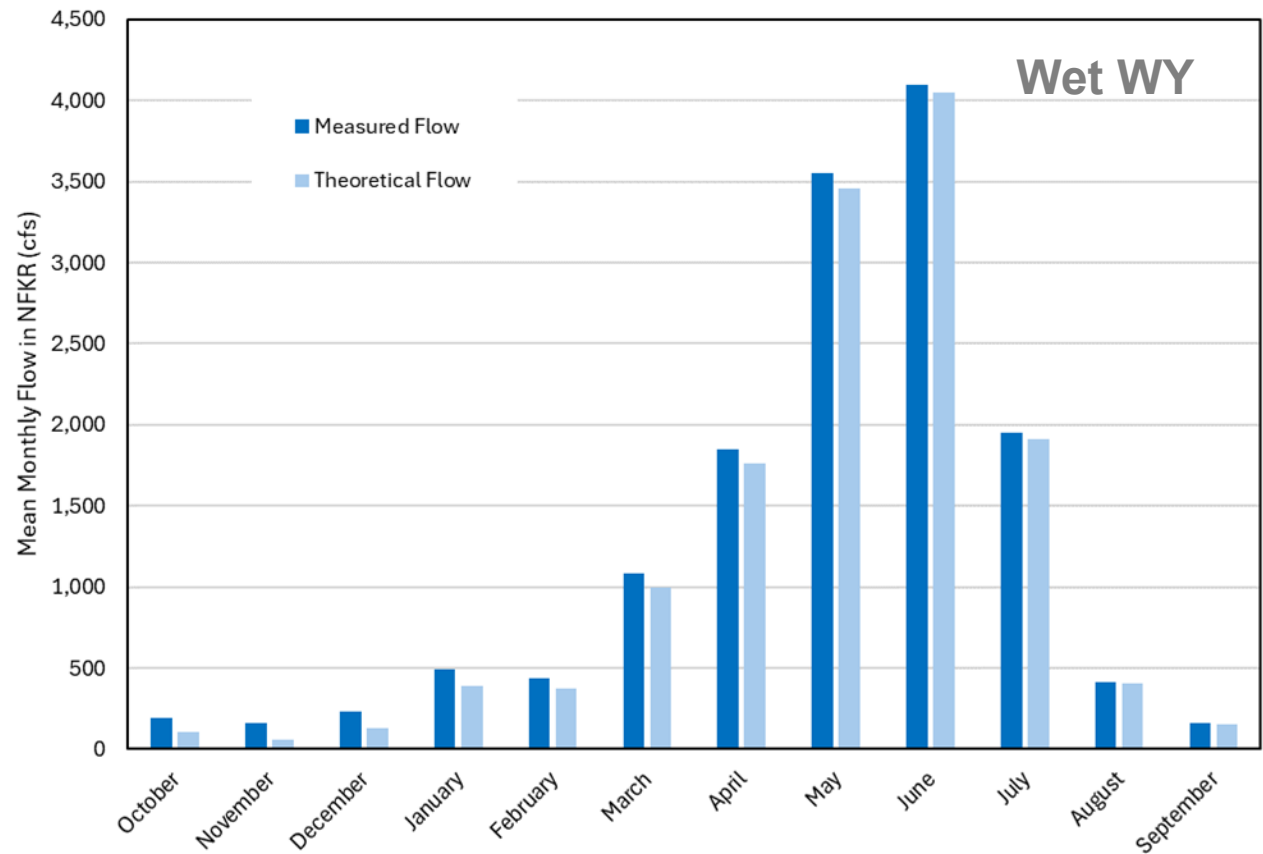
- Theoretical flows reassigns measured flows during extended outages
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WR-2 Hydrology, cont.

- Key Study Results- Theoretical Hydrology Excluding Extended Project Outages

- Theoretical flows reassigns measured flows during extended outages
- Assumes no boating flows
- Assumes no CDFW hatchery diversion



Questions?

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Biological Resources

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BIO-1 Foothill Yellow-legged Frog (Att. C)

- Study Elements Completed
 - Phase II: Implemented Field Surveys
 - Visual Encounter Surveys (VES) # 1: June 21-23, 2023 (reported in ISR)
 - VES #2 and Environmental DNA collection: September 5-8, 2023
 - VES #3: June 2024 along NFKR and Salmon Creek
- Variances / Modifications to Ongoing Study
 - Survey timing was adjusted to align with the expected breeding and egg mass oviposition periods
 - Surveys were repeated in 2024 at all sites since some sites were not safely accessible in 2023
- Ongoing/Outstanding Study Elements
 - None

BIO-1 Foothill Yellow-legged Frog, cont.

- Key Study Results

- No foothill yellow-legged frogs were observed or detected in any eDNA samples
- Suitable habitat for foothill yellow-legged frogs is present in the study area
- Other herpetofauna observed included Sierran tree frog, Sierra garter snake, western pond turtle, southern alligator lizard, and Blainville's horned lizard



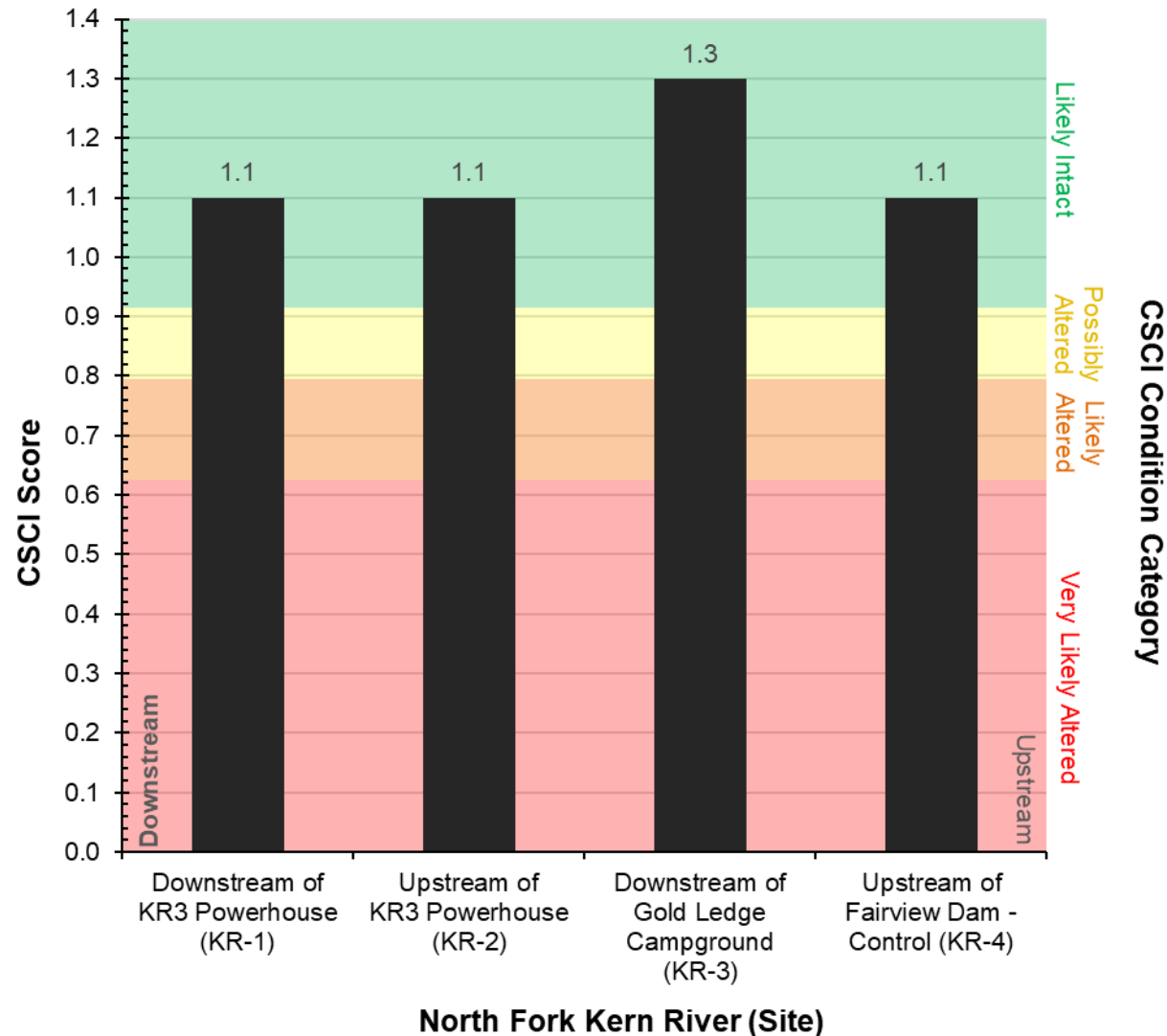
BIO-4 Benthic Macroinvertebrate Survey (Att. D)

- Study Elements Completed
 - Conducted an inventory and assessment of benthic macroinvertebrate diversity and abundance at 4 sampling locations within the NFKR on October 24-25, 2023.
- Ongoing/Outstanding Study Elements
 - None
- Variances
 - None

BIO-4 Benthic Macroinvertebrate Survey, cont.

• Key Study Results

- A total of 2,281 individuals representing 52 distinct taxa were collected
- The CSCI scores for samples collected in the NFKR were all described as “likely intact”



Questions?

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Land Resources and Project Operations

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LAND-1 Road Condition Assessment (Att. I)

- Study Elements Completed
 - Monthly road use spot counts June '23 - May '24
 - Characterized SCE's use along Project and Shared Access Roads
- Ongoing/Outstanding Study Elements
 - None
- Variances
 - None

LAND-1 Road Condition Assessment, cont.

- Key Study Results
 - SCE Use of Project/Shared Access Roads

Frequency of Use	Road Access to:
Daily/Weekly (M-F)	Major Project features (Fairview Dam/sandbox, Salmon Ck Diversion, Corral Ck Diversion, stream gages, above ground segments of flowline, forebay/penstock)
Monthly	Project adits or tunnel muck locations

- Public Use of Shared Access Roads
 - Highest rate of public use:
 - Tunnels 5-8A Access Road
 - Rincon Access Road (road to Rincon Trailhead)
 - KR3 Powerhouse Access Road (to KR3 Powerhouse Put-in/Take-out)

OPS-1 Tunnel Assessment (Att. J)

- Study Elements Completed
 - Phase 2:
 - Completed engineering review and evaluation of current water conveyance conditions under varying flow conditions
 - Identified guidelines and recommendations for long-term Project operations
- Ongoing/Outstanding Study Elements
 - None, study completed
- Variances
 - None

OPS-1 Tunnel Assessment, cont.

- Key Study Results (Conclusions):
 - The tunnel floor (invert) is susceptible to effects from rapid changes in tunnel flows over time
 - Upward pressures at a 50 cfs per hour flow reduction, results in an invert slab at the verge of "floating," *increasing the potential* for the concrete floor to break
 - The broken concrete pieces could be mobilized by the flow and slowly migrate downstream, which could result in reduced tunnel capacity and functionality

OPS-1 Tunnel Assessment, cont.

- Key Study Results (Operational Recommendations):
 - Rapid changes in depth of flow, specifically reducing flow, could have an unfavorable effect on the long-term integrity of section of the tunnel invert
 - Operate at near-constant flows
 - If reduction is necessary, a ramping rate of 50 cfs per hour or less is recommended when operationally feasible
 - No constraints on ramping rates when increasing the flow

Questions?

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Recreation Resources

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REC-2 Recreation Facilities Use Assessment (Att. G)

- Study Elements Completed
 - Visitor Surveys
 - Calibration counts
 - Spot counts
- Ongoing/Outstanding Study Elements
 - Camera Study (discuss later)
- Variances
 - Developed campground data/use information from the Forest Service (received on October 10, 2024, updated Technical Memorandum to be filed with the FLA)
- Modifications to Ongoing Study
 - None

REC-2 Recreation Facilities Use Assessment, cont.

- Key Study Results:

Over 1-year study period

- 56 visitor survey days
 - 2,195 recreationists approached
 - 1,697 completed survey
 - 347 declined to participate
 - 151 duplicate surveys
- 61 spot count days
- 5 one-hour calibration counts
- 28 two-hour calibration counts
- 42 online surveys submitted

REC-2 Recreation Facilities Use Assessment, cont.

- Key Study Results, cont.:
 - Visitor Intercept Surveys and Online Surveys
 - Study Sites 1-3
 - 188 Surveys completed
 - Study Sites 4-25
 - 1,551 Surveys completed
 - Primary Recreation Activity
 - Camping, Fishing, Hiking/Walking/Trail Use
 - Effect of Flows on Activity
 - No Effect, did not participate in Water-related activity
 - Average Overall Satisfaction Ratings
 - Satisfied to very satisfied for all categories

REC-2 Recreation Facilities Use Assessment, cont.

- Key Study Results, cont.:
 - Recommended improvements
 - Sites 1-3: restrooms/sanitation features, trash cans/maintenance/cleaning
 - Sites 4-23 and Site 25: restrooms/sanitation features, new or repaired benches/tables/grills, parking area or paving
 - Site 24: restrooms/sanitation, trash cans/maintenance/cleaning, benches/tables/grills
 - Recommended additional recreation facilities
 - Sites 1-3: no/none recommendations, restrooms, benches/grills/tables
 - Sites 4-23 and Site 25: no/none recommendations, restrooms, benches/tables/grills and drinking/washing stations
 - Site 24: no/none recommendations, benches/tables/grills, restrooms

REC-2 Recreation Facilities Use Assessment, cont.

- Key Study Results, cont.:
 - Additional comments
 - Sites 1-3: no comment, trash/recycling/cleaning
 - Sites 4-23 and Site 25: no comment; signs/information/warnings
 - Site 24: no comment, signs/information/warnings

REC-2 Recreation Facilities Use Assessment, cont.

- Key Study Results, cont.:
 - Recreation Use
 - Sites 1-3:
 - 1,076 visitors observed
 - 31,900 estimated annual recreation user days
 - Sites 4-23 and Site 25:
 - 9,546 visitors observed
 - 106,800 estimated annual recreation user days
 - Site 24:
 - 280 visitors observed
 - 10,900 estimated annual recreation user days

REC-2 Recreation Facilities Use Assessment, cont.

- Key Study Results, cont.:
 - Parking Utilization
 - Maximum parking utilization on non-peak weekends
 - Whiskey Flat Trailhead (66 percent)
 - Johnsondale Bridge River Access (55 percent)
 - Maximum parking utilization on peak (holiday) weekends
 - Whiskey Flat Trailhead (98 percent)
 - Camp 3 Campground (76 percent)
 - Johnsondale Bridge River Access (67 percent)
 - Corral Creek Day Use Site (64 percent)

REC-2 Recreation Facilities Use Assessment, cont.

- Key Study Results, cont.:
 - Future Recreation Use
 - 204,900 estimated future recreation days
 - (increase of 54,900 recreation days or approximately 37 percent)
 - Future Recreation Needs
 - All sites remain under capacity through 2070
 - Exceptions
 - Whiskey Flat Trailhead 2040, 2050, 2060, 2070
 - Camp 3 Campground 2070

AES-1 Aesthetic Flows Study (Att. K)

- Study Elements Completed
 - Level 1 Desktop Review of Existing Information
 - Summarized existing and available information
 - Described aesthetic conditions at varying flows for 16 key observation points (KOPs) along the NFKR using elements of the Forest Service Scenery Management System
 - Analyzed responses from REC-2 Visitor Intercept Survey
- Ongoing/Outstanding Study Elements
 - None, Level 1 review completed
- Variances / Modifications to Ongoing Study
 - None

AES-1 Aesthetic Flows Study



AES-1 Aesthetic Flows Study



AES-1 Aesthetic Flows Study – KOP 3

134 - 160 CFS



331 - 381 CFS



719 - 829 CFS



891 - 1,000 CFS



AES-1 Aesthetic Flows Study – KOP 7

134 - 160 CFS



331 - 381 CFS



719 - 829 CFS



891 - 1,000 CFS



AES-1 Aesthetic Flows Study – KOP 14

134 - 160 CFS



331 - 381 CFS



719 - 829 CFS



891 - 1,000 CFS



AES-1 Aesthetic Flows Study

- Key Study Results - Key Observation Points
 - Scenic conditions at different flow levels
 - Reduction in visual complexity at very low flows
 - Variability in visual conditions at moderate flows (visibility and presence of river/water features)
 - Flood characteristics at very high flows
 - Flow effects on visual changes is location-dependent
 - Visual changes most evident at locations with narrow river channel, boulders and other rock features, and higher gradient
 - In areas that lack these features, differences in scenic conditions at different flow levels are less pronounced

AES-1 Aesthetic Flows Study

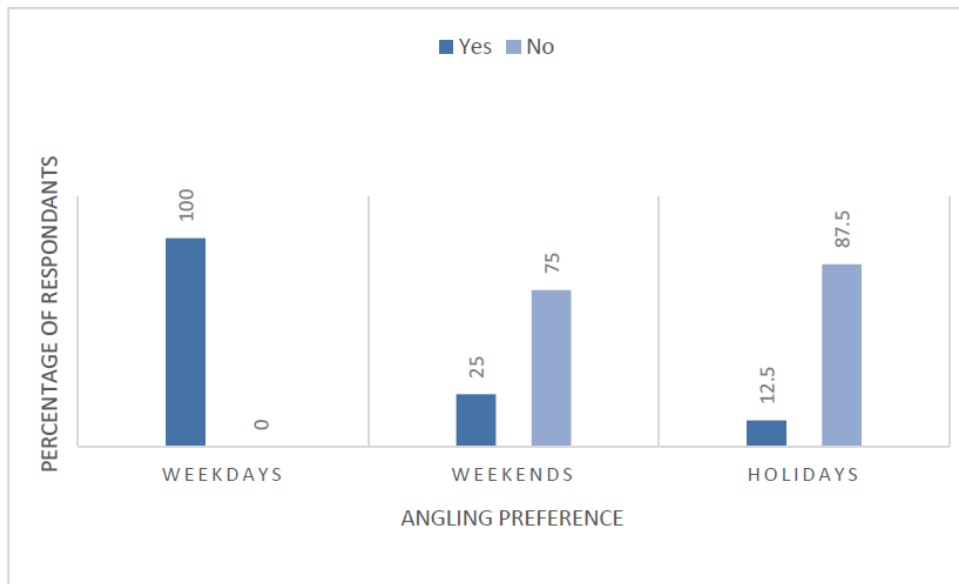
- Key Study Results – Visitor Questionnaire
 - 96% of visitors rated scenic quality as “very good” or “good”
 - Most attractive scenic features include: river flows (~53%) and general scenery of the area (~42%)
 - 97% of visitors rated general scenery as “very good” or “good”
 - 88% of visitors rate scenic condition of flows as “very good” or “good”
 - 85% of visitors rated Project infrastructure as “very good” or “good”
 - 21% of visitors reported participating in an aesthetic-oriented activity

ANG-1 Enjoyable Angling Flows (Att. V)

- Study Elements Completed
 - Level 1 Desktop Study
 - Literature review describing river characteristics and angling opportunities (reported in ISR)
 - Structured interviews with persons knowledgeable about angling in the Project Area (reported in ISR)
 - Analyzed responses from REC-2 Visitor Intercept Survey
- Ongoing/Outstanding Study Elements
 - None, Level 1 review completed
- Variances /Modifications to Ongoing Study
 - None

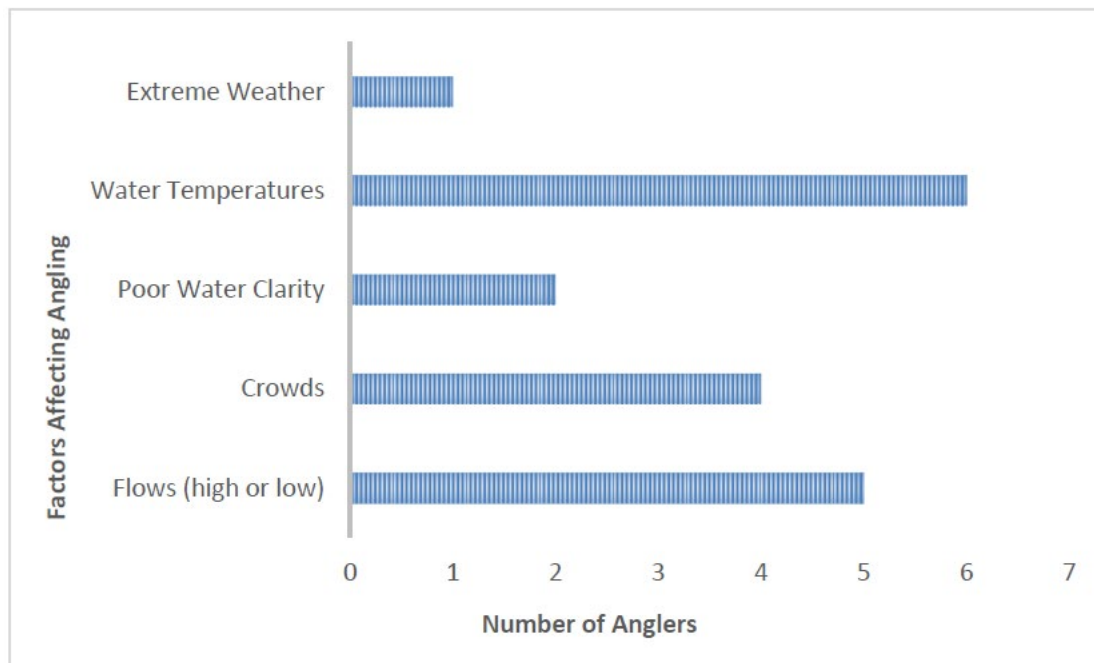
ANG-1 Enjoyable Angling Flows

- Key Study Results – Structured Interviews
 - Mix of spin and fly anglers (8 total)
 - Multiple personal or guided trips per year (6 – 150+)
 - Fly fishing = Fall – Spring
 - Spin fishing = Summer
 - Avoid weekends and holidays



ANG-1 Enjoyable Angling Flows

- Key Study Results – Structured Interviews
 - Preference for both developed and dispersed access points
 - Factors that influence chosen fishing area



ANG-1 Enjoyable Angling Flows

- Key Study Results – Structured Interviews
 - Preferred flows in the 150 to 1,000 cfs range:
 - 50 cfs and under affects fish activity and fishability
 - 100 to 200 cfs minimum angling flows
 - 200 to 800 cfs combination of active fish and safe angler access
 - 700 to 800 cfs upper threshold of angling flows
 - 2,000 to 4,000 (and above) unfishable for most anglers
 - Preferred locations:
 - Narrow channel sections at lower flows
 - Broad channel sections at higher flows
 - Anglers more selective at increased flows

ANG-1 Enjoyable Angling Flows

- Key Study Results – Visitor Questionnaire
 - 25% of all participants reported angling
 - More trips in Spring and Summer
 - ~87% of anglers fish for fun
 - Types of angling:
 - 47% spin fish with bait
 - 41% spin fish with lures
 - 11% fly fish

ANG-1 Enjoyable Angling Flows

- Key Study Results – Visitor Questionnaire
 - Primary reasons:
 - “For the fishing” - ~51%
 - Solitude/peaceful/scenery - ~14%
 - River access - ~7.8%
 - River flows:
 - 76% indicated flows did not affect their experience
 - 14% indicated flow did affect their experience
 - Flows too high (61%)
 - Flows too low (39%)

Questions?

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REC-1 Whitewater Boating (Att. E and F)

- Study Elements Completed

- Level 3: Intensive Study
 - Analysis of the single flow survey data collected in 2023
- Level 3: Intensive Study
 - Enhanced flow opportunities designed to target knowledge gaps between 200 and 800 cfs
 - Focus group discussions
 - Flow comparison survey
 - Hydrology analysis using flow preference curves for different watercraft types

- Ongoing/Outstanding Study Elements

- None, study completed

- Variances

- Developed a specific post flow evaluation form for the enhanced flow opportunities, rather than reopening the single flow survey utilized in 2023.

REC-1 Whitewater Boating, cont.

- Key Study Results - Single Flow Survey
 - 404 responses between April 1 and December 31, 2023
 - Boaters evaluated flows between 250 and 8,500 cfs
 - Kayaks were the dominant watercraft type

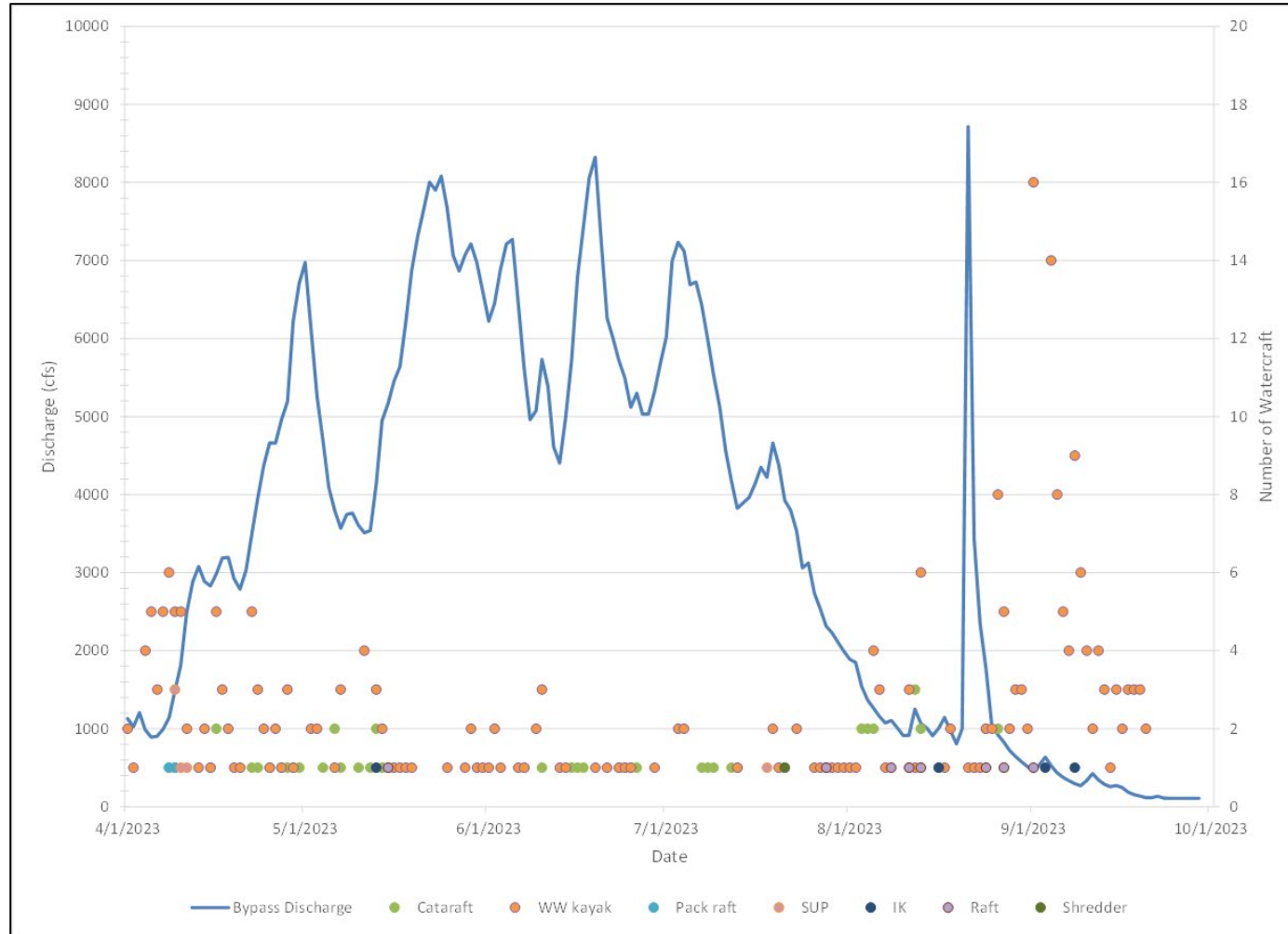
Table 5.1-2. River Segments Boated by Single Flow Survey Respondents Grouped by Discharge

Discharge Range (cfs)	Sidewinder	Fairview	Chamise	Salmon Falls	Gold Ledge	Thunder Run	Camp 3 / Cable Run	Riverkern	Powerhouse
>3,000	3	3	3	1	10	45	96	89	110
1,500–3,000	0	0	4	2	5	19	23	20	35
1,000–1,500	0	1	12	2	7	9	26	22	43
700–1,000	1	11	16	1	5	15	22	18	37
<700	0	60	107	1	20	1	7	5	119
Total per River Segment	4	75	142	7	47	89	174	154	344

cfs = cubic feet per second

REC-1 Whitewater Boating, cont.

- Single Flow Survey (cont.)



REC-1 Whitewater Boating, cont.

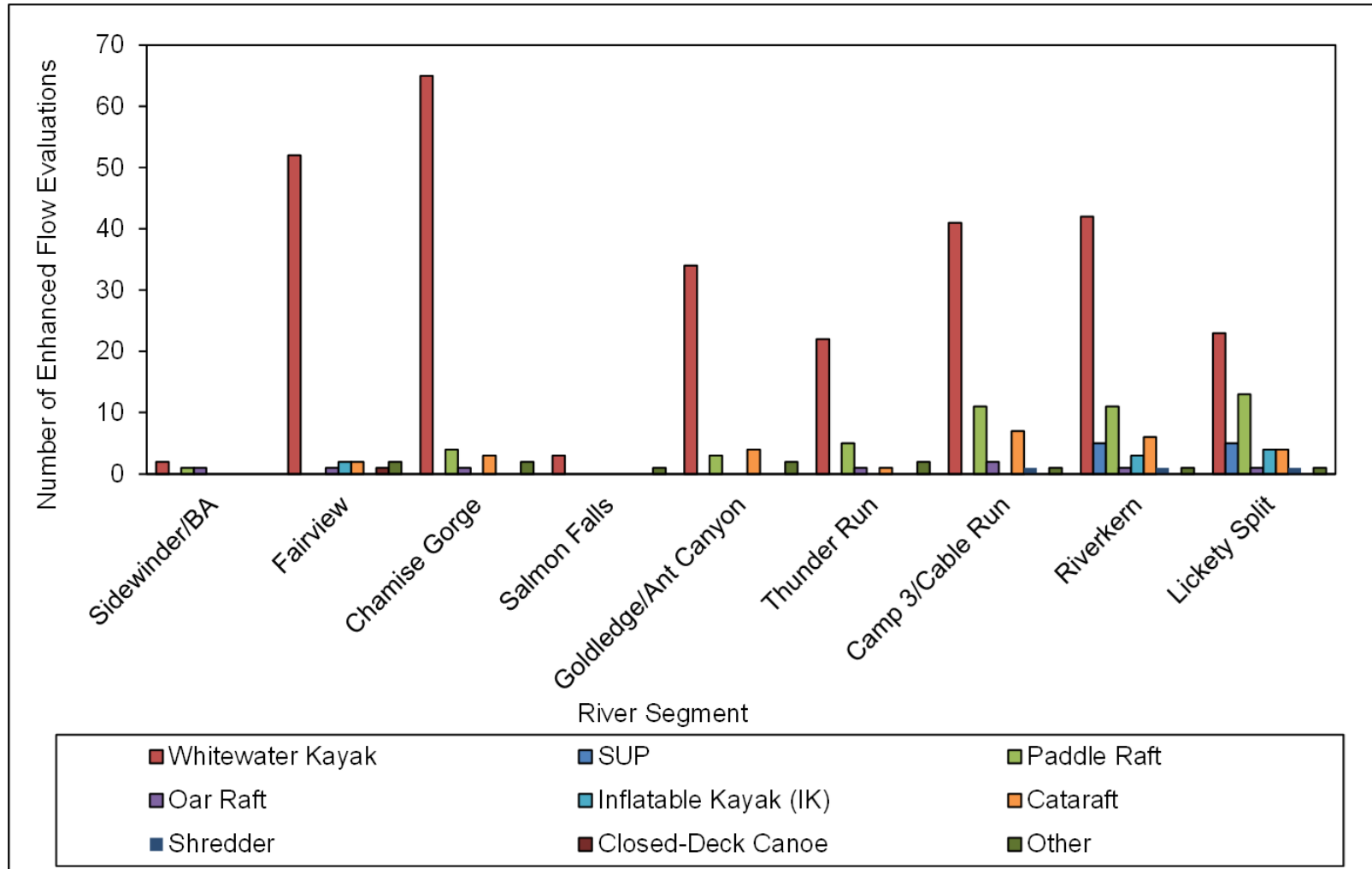
- Key Study Results: Enhanced Flow Opportunities

Date	Approx. Flow	Evaluation Forms
April 11	450 cfs	27
April 12	770 cfs	26
April 13	835 cfs	24
April 14	835 cfs	17
July 12	550 cfs	22
July 13	250 cfs	15

- Enhanced flow evaluation form completed following each enhanced flow opportunity
- Focus group discussion following each enhanced flow opportunity to obtain direct feedback from boaters (Appendix D)

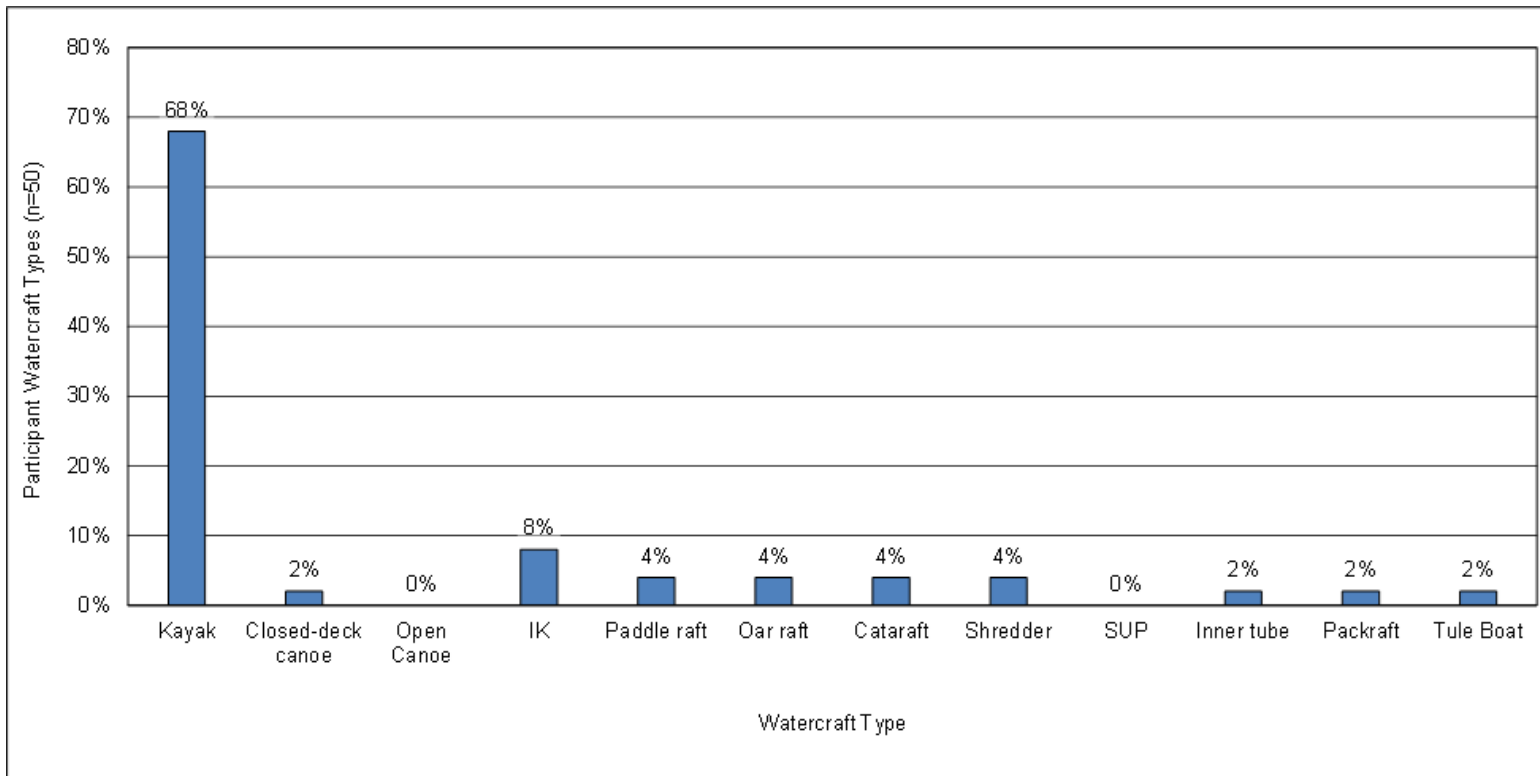
REC-1 Whitewater Boating, cont.

Enhanced Flow Opportunities (cont.)



REC-1 Whitewater Boating, cont.

- Key Study Results: Flow Comparison Survey
 - Survey Available: July 18-August 16, 2024
 - 50 Survey Responses
 - Kayaks most prevalent (68%)



REC-1 Whitewater Boating, cont.

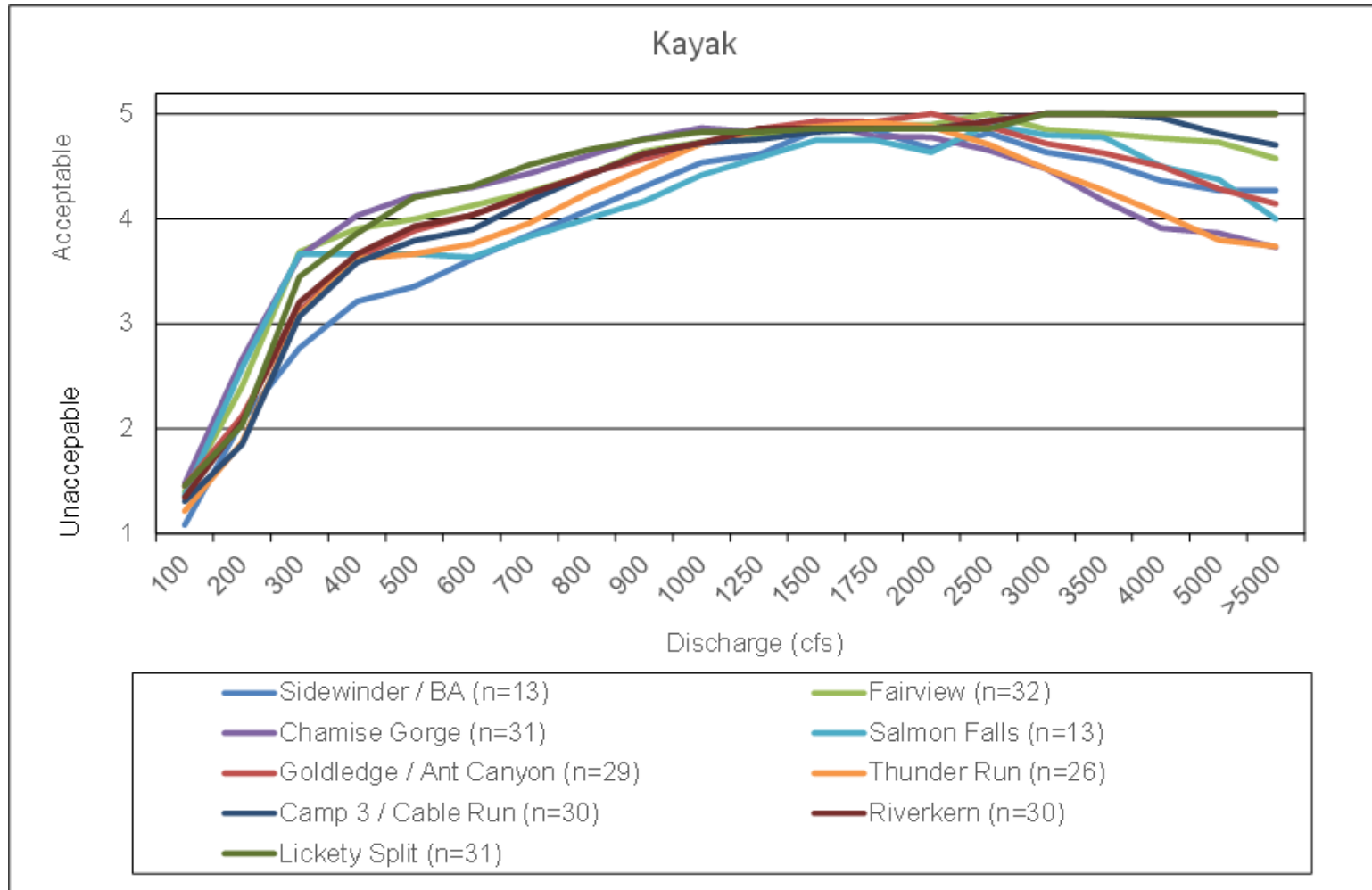


Figure 5.2-2. Whitewater Kayak Flow Preference Curve for Nine River Segments on the NFKR (Flow Comparison Survey).

REC-1 Whitewater Boating, cont.

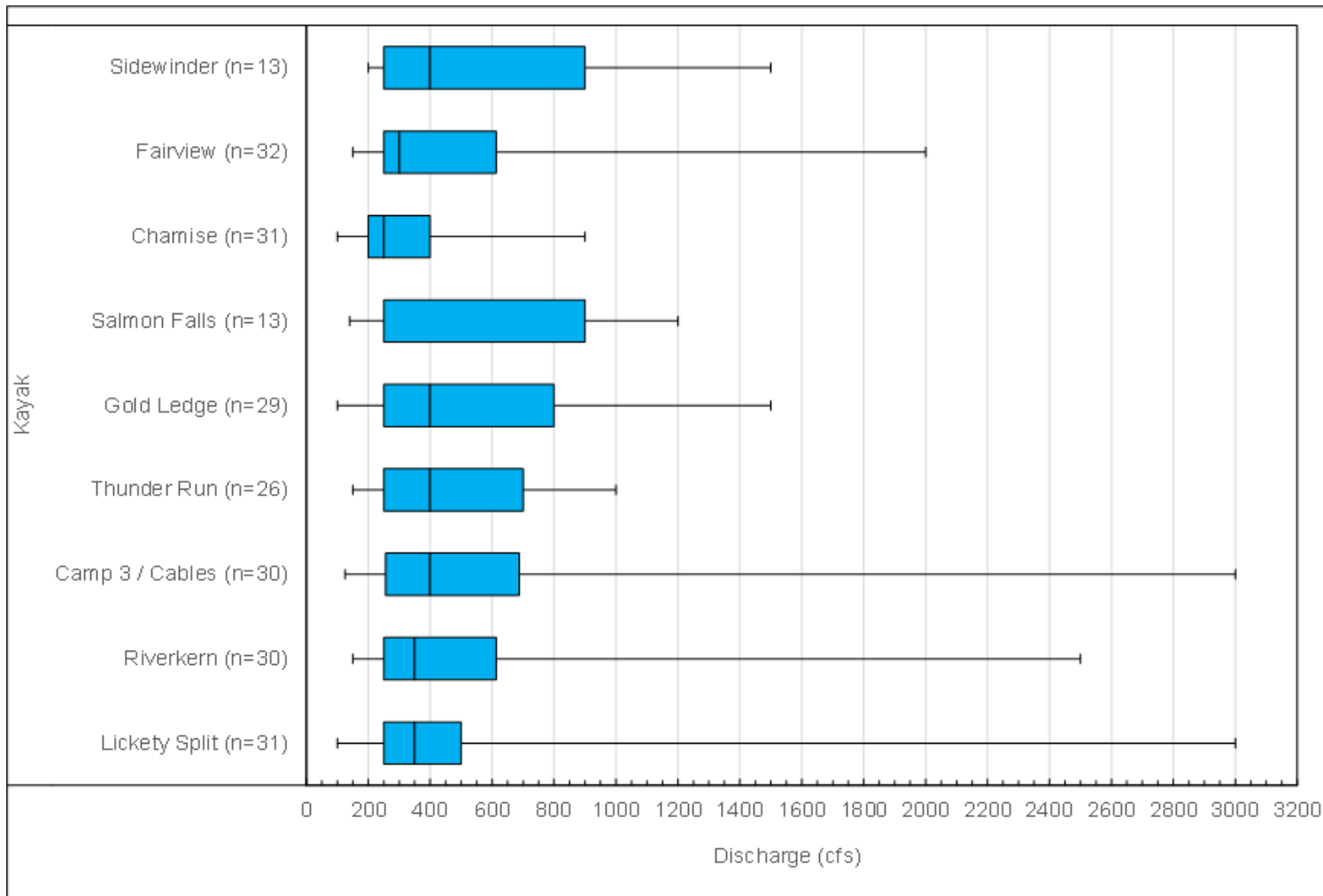


Figure 5.2-2. Whitewater Kayak Minimum Acceptable Flow Preference (Flow Comparison Survey).

REC-1 Whitewater Boating, cont.

- Minimum acceptable flow preferences differ substantially between watercraft types and river segments in the Fairview Dam Bypass Reach:
 - Smaller watercraft (whitewater kayak, IK, and packraft): the minimum acceptable flow ranged from 200 to 300 cfs depending on watercraft type and river segment.
 - Boaters typically choose Chamise Gorge and Fairview river segments under minimum acceptable flow conditions.
 - Cataract: the minimum acceptable flow was 400 cfs.
 - Larger inflatables (such as paddle and oar rafts): the minimum acceptable flow ranged between:
 - 800 and 900 cfs for the river segments rated Class IV to V in whitewater difficulty; or
 - Decreased to 500 cfs for the Riverkern and Lickety Split river segments.

REC-1 Whitewater Boating, cont.

- Whitewater kayak optimum flows covered a broad range with slight differences between river segments in the low and high ends of the range.
 - Sidewinder / Bomb's Away river segment optimum flow range from 1,000 cfs to greater than 3,500 cfs.
 - Fairview river segment optimum flow range from 900 cfs to greater than 5,000 cfs.
 - Chamise Gorge river segment optimum flow range from 800 cfs to 3,000 cfs.
 - Goldledge / Ant Canyon river segment optimum flow range from 900 cfs to greater than 4,000 cfs.
 - Thunder Run river segment optimum flow range from 900 cfs to greater than 3,000 cfs.
 - Cable / Camp 3 river segment optimum flow range from 900 cfs to greater than 5,000 cfs.
 - Riverkern river segment optimum flow range from 900 cfs to greater than 5,000 cfs.
 - Lickety Split river segment optimum flow range from 700 cfs to greater than 5,000 cfs.

REC-1 Whitewater Boating, cont.

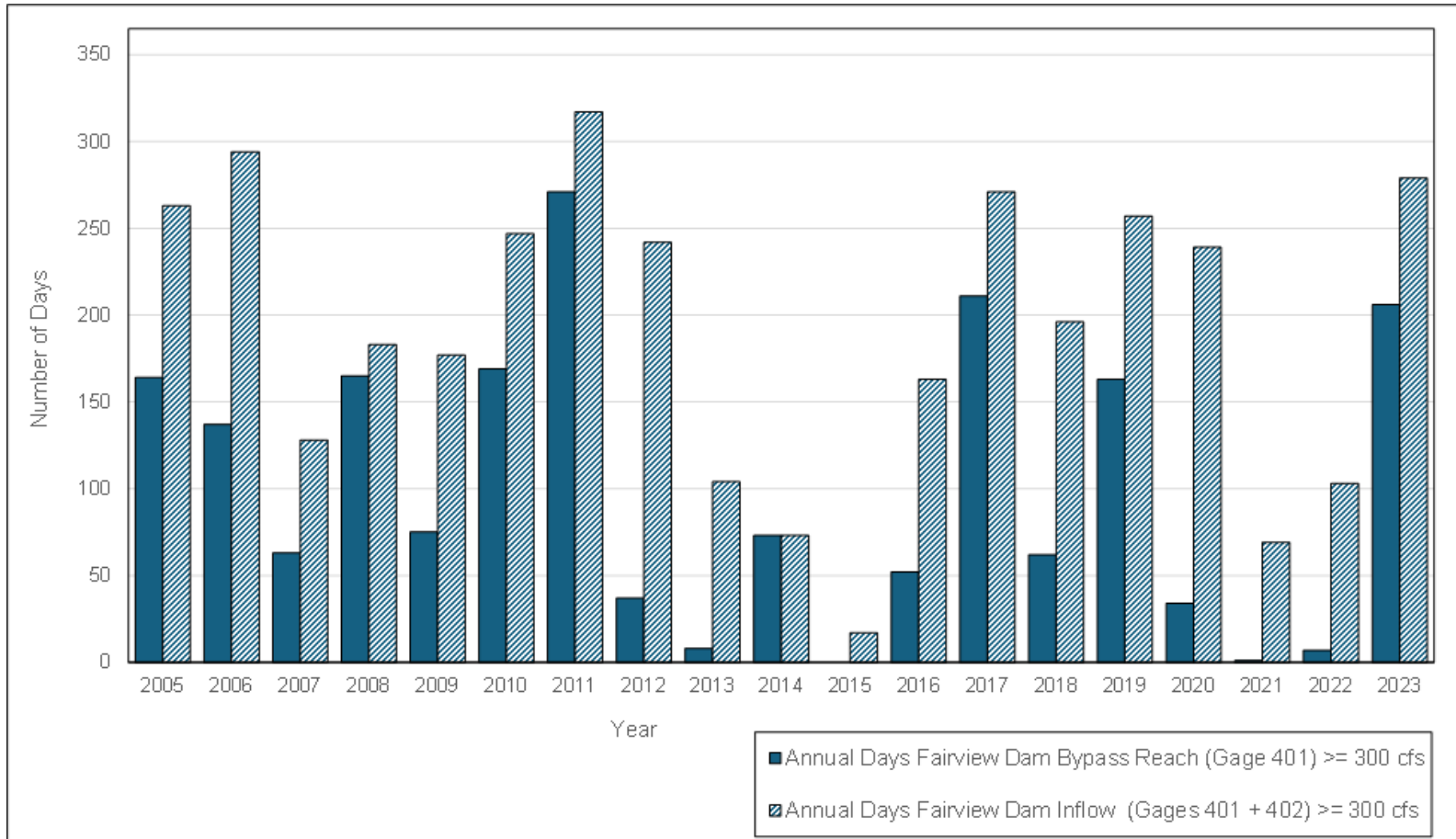
- The optimum flow range for large inflatables such as paddle and oar rafts ranged between:
 - 900 to 5,000 cfs for most of the river segments; or
 - 500 to greater than 5,000 cfs on the Riverkern and Lickety Split river segments.
- IK and packraft optimum flows started lower than other watercraft—200 cfs on the low end.

REC-1 Whitewater Boating, cont.

- Whitewater Boating Opportunities
 - Annual number of whitewater boating days (10 a.m. to 5 p.m.) in the Fairview Dam Bypass Reach and inflow to Fairview Dam were quantified using minimum acceptable and optimum flow thresholds for different watercraft types between 2005 and 2023 (Appendix I).

REC-1 Whitewater Boating, cont.

Whitewater boating days ≥ 300 cfs



REC-2 Recreation Facilities Use Assessment: Camera Study Plan (Att. H)

- Study Goals and Objectives
 - Document and estimate river-focused recreation use:
 - Validate capacity estimates at river access sites (with other REC-2 data)
 - Commercial and non-commercial use levels
 - Types of watercraft
- Consultation Summary
 - June-September: Consulted with Forest Service on potential camera locations and submitted formal approval to install cameras
 - August: Boater outreach on camera locations

REC-2 Recreation Facilities Use Assessment: Camera Study Plan, cont.

- Study Implementation
 - 15 camera locations identified along NFKR between Johnsondale Bridge and KR3 Powerhouse
 - 11 put-in/take-out locations (recreation sites)
 - 1 road shoulder pull-off
 - 3 river view locations
 - Photo collection
 - Every 5 min from dawn to dusk
 - 1 year of data collection
 - Periodic download of data
 - Estimated 730,000+ photos at end of study period

REC-2 Recreation Facilities Use Assessment: Camera Study Plan, cont.

- Study Implementation, cont.
 - Photo analysis
 - Utilize AI technology:
 - document presence of boats/boaters
 - Intention to analyze all photos collected
 - Further analysis on sub-set of photos with boats/boaters detected
 - Number of people (commercial vs non-commercial)
 - Types of watercraft
 - Use patterns (day and time)
 - QA/QC
 - Subset of photos to refine and verify AI model

REC-2 Recreation Facilities Use Assessment: Camera Study Plan, cont.

- Study Implementation, cont.
 - Data Analysis
 - Report out on use patterns and frequency recorded at each of the 15 camera locations
 - Develop estimates of commercial and non-commercial use
 - Schedule
 - Winter 2024-Winter 2025: Camera Install and periodic download and check of camera data
 - Winter 25/26: data analysis and reporting

Questions?

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Criteria for Proposed Study Modifications or New Studies

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Criteria for Modification of a Study

- Per 18 CFR §5.15(d) - Criteria for modification of approved study.
 - Any proposal to modify an ongoing study pursuant to paragraphs (c)(1)–(4) of this section must be accompanied by a showing of good cause why the proposal should be approved, and must include, as appropriate to the facts of the case, a demonstration that:
 - (1) Approved studies were not conducted as provided for in the approved study plan; or
 - (2) The study was conducted under anomalous environmental conditions or that environmental conditions have changed in a material way.

Criteria for Request of a New Study

- Per 18 CFR §5.15(e) - Criteria for new study.
 - Any proposal for new information gathering or studies pursuant to paragraphs (c)(1)–(4) of this section must be accompanied by a showing of good cause why the proposal should be approved, and must include, as appropriate to the facts of the case, a statement explaining:
 - (1) Any material changes in the law or regulations applicable to the information request;
 - (2) Why the goals and objectives of any approved study could not be met with the approved study methodology;
 - (3) Why the request was not made earlier;
 - (4) Significant changes in the project proposal or that significant new information material to the study objectives has become available; and
 - (5) Why the new study request satisfies the study criteria in § 5.9(b).

How to File a Comment

- Please file all comments using the Commission's eFiling system at:
 - <https://ferconline.ferc.gov/FERCOOnline.aspx>
- Submit brief comments up to 6,000 characters, without prior registration, using the eComment system at:
 - <https://ferconline.ferc.gov/QuickComment.aspx>
 - Include name and contact information at the end of your comments
- For assistance, please contact FERC Support at: FERCOOnlineSupport@ferc.gov.

Relicensing Participant Proposed Modifications or New Study Plans

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Next Steps

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Next Steps

- **November 7, 2024:** SCE will file the USR Meeting Summary with FERC
- **December 10, 2024:** Stakeholders can file written comments with FERC
 - Associated with the USR / USR meeting notes
 - New/modified study requests per 18 CFR §5.15(d) or (e)

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