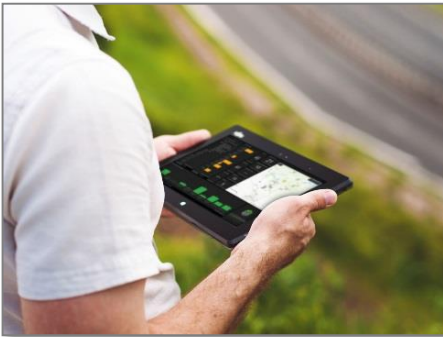


## Fulcrum App - Tree Risk Assessment Tool

### New Utility Vegetation Management Tree Risk Assessment Tool

Hazard Tree characteristics that consider tree attributes and site attributes help indicate possible hazardous conditions posed on our equipment. These characteristics, of tree and site, are used to risk rank a Subject Tree. Both tree and site attributes may impact the stability of a tree and should be considered when performing a tree risk assessment. Information collected during a tree risk assessment will be captured on the Tree Risk Assessment Form and be submitted to Vegetation Management Compliance & Support (VMC&S) team. The assessment results will be captured in the Work Management System in order to track and manage the prescribed work or other mitigation.


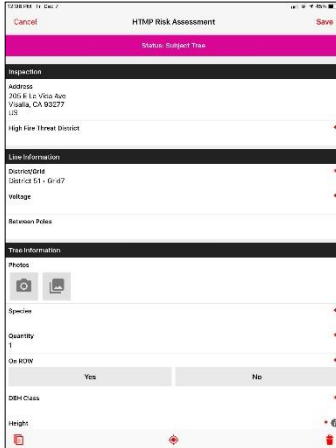
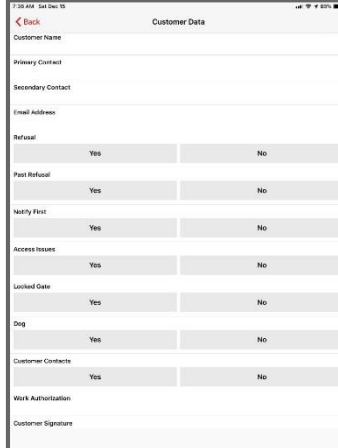
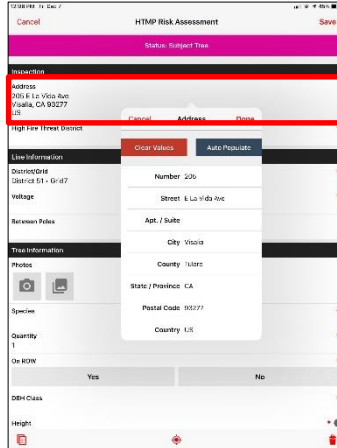


### How the Tree Risk Assessment Data will be accessed / exchanged:

Field personnel will use a Fulcrum app on an iOS device. A daily extract file will be provided to VMC&S department from Fulcrum. VMC&S will update the Work Management System with the hazard data identified (tree characteristics and location information) in Fulcrum. Fulcrum will be used as an assessment tool and transaction system. The transactional data will be updated into the VM Work Management System as the system of record.

### How to Use the Fulcrum App:

To aide in the determination of the likelihood of tree failure, the Fulcrum based Tree Risk Assessment App was developed to help users identify the risk based on critical information. Depending on how you answer the questions, the tool will calculate a risk rank score, and suggested priority. (\* *red star is a mandatory field*)

Inspection Information			
<p>1. Hit the + button to start record</p> 	<p>2. Blank record with prefabbed address and last grid inspected</p> 	<p>3. Enter customer data if applicable</p> 	<p>4. Enter address</p> 

## Inspection Information

4. Indicate whether or not it's a High Fire Threat District

## Line Information

6. Select district or grid from the drop down list

7. Select circuit from the drop down list

## Line Information

8. Select voltage classification

9. Select construction type

10. Select the photo icon to take pictures of the tree and/or tree defects

## Tree Information

11. Identify Tree species classification (alphabetical order of common name)

12. Tree quantity

13. Indicate whether or not it's on or off ROW

HTMP Risk Assessment

Species: A-C • Cottonwood

Quantity: 1

On ROW: Yes No

DBH Class

Height

Age

Risk Matrix

Overall Tree Condition

HTMP Risk Assessment

Quantity: 1

On ROW: Yes No

DBH Class

Height

Age

Risk Matrix

Overall Tree Condition

HTMP Risk Assessment

On ROW: Yes No

DBH Class

Height

Age

Risk Matrix

Overall Tree Condition

14. DBH classification that fits routine, BB, DRI

15. Manually enter tree height

16. Tree Age (first component that is scored in the overall risk score)

HTMP Risk Assessment

DBH Class: 36+

Height

Age

Risk Matrix

Overall Tree Condition

HTMP Risk Assessment

Height: 55

Age

Risk Matrix

Overall Tree Condition

HTMP Risk Assessment

Age: Over Mature

Risk Matrix

Overall Tree Condition

# Fulcrum App - Tree Risk Assessment Tool

HTMP Job Aid

Tree Information (cont.)	Risk Matrix	
<p>17. Descriptions of overall tree conditions</p>	<p>18. Assess the overall tree condition and score it appropriately</p>	<p>19. Identify the tree defects (not part of the overall score unless all tree defect scores add up to a higher score than the overall tree condition score )</p>
<div data-bbox="94 499 527 1060"> <p><b>Tree Conditions (cumulative)</b></p> <p>No defects</p> <p>Minor defects (small <u>codom</u> top, nuisance insect/mistletoe infestation, unfavorable species)</p> <p>Moderate defects (moderate rot, <u>epicormic</u> sprouts, large <u>codom</u> top, multiple trunks, severe insect/mistletoe infestation, early stages of serious disease, exposed roots, some minor or moderate defects that have an additive effect)</p> <p>Major defects (crack in trunk, prevalent rot, history of branch/trunk failure, codominant, prevalent signs of serious disease, several minor and/or moderate defects)</p> <p>Extreme defects (major cracks in trunk, serious exposed roots, major rot, severely <u>diseased</u>, and/or many defects that have an additive effect)</p> <p>Tree has failed, uprooted, or is currently failing/uprooting and requires immediate attention</p> </div>	<div data-bbox="587 499 1023 1060"> </div>	<div data-bbox="1079 499 1515 1060"> </div>
Risk Matrix		
<p>20. Worst site condition present at location (scored in the overall risk score; Lowest score at the top of the list and Highest score at the bottom of the list)</p>	<p>21. Tree Lean (scored in the overall risk score)</p>	<p>22. Tree Height Factor (scored in the overall risk score)</p>
<div data-bbox="94 1337 527 1919"> </div>	<div data-bbox="587 1337 1023 1919"> </div>	<div data-bbox="1079 1337 1515 1919"> </div>

## Risk Matrix (cont.)

23. Likelihood of Line Impact (scored in the overall risk score)

The screenshot shows the 'HTMP Risk Assessment' app interface. The 'Risk Matrix' section is expanded, showing various tree condition factors. The 'Likelihood of Line Impact' is highlighted with a red box and set to 'Probable'.

## Work Plan

24. Work Plan Window (Auto Generated: control number, risk rank score, and suggested priority)

The screenshot shows the 'Work Plan' window. It displays the 'Control Number' (D31G20154500506689), 'Risk Rank Score' (49), and 'Suggested Work Prioritization' (Priority 2H- work within 1 month).

25. **EXAMPLE:** Changing a couple of the dropdown selections changes the score

The screenshot shows the 'HTMP Risk Assessment' app interface with different selections in the 'Risk Matrix' section compared to the previous screenshot, illustrating how changes affect the overall risk score.

## Work Plan

26. **EXAMPLE:** Same control number, different risk rank score, and different suggested priority (Auto Generated)

The screenshot shows the 'Work Plan' window with a different 'Risk Rank Score' (72) and 'Suggested Work Prioritization' (Priority 1- work within 24 hours) compared to the previous screenshot.

27. Select a work priority based on the suggested work priority and assessment (specify reason for change – if applicable)

The screenshot shows the 'Work Plan' window with the 'Selected Work Prioritization' dropdown menu open, allowing the user to select a different priority based on the assessment.

28. Assign an appropriate treatment to mitigate or remove the risk

The screenshot shows the 'Work Plan' window with the 'Suggested Treatment' dropdown menu open, allowing the user to select an appropriate treatment to mitigate or remove the risk.



## Work Plan

### 29. Select tree Status

The screenshot shows the 'HTMP Risk Assessment' app interface. At the top, it says 'Status: Priority 2-Approved'. Below this, there is a dropdown menu for 'Status' with the following options: Subject Tree, Priority 1-Approved, Priority 2-Approved (selected), Priority 3, Work Authorization Pending, Refusal, Tree Work Complete, Associated LPC, QA/QC - Audit Fail; Re-Work, QA/QC - Audit Pass, Archaeological Concern, and Biological/Environmental/Waters... The app also displays fields for User (Seth Reid), Entry Created (2018-12-14 14:32:01), Last Updated (2018-12-16 21:53:26), Address (2425 S Blackstone St, Tulare, CA 93274, US), Customer Data (High Fire Threat District, HFTD, Inspector Name, Phil C), Line Information (District/Grid, District 31 - Grid 20, Circuit 2), Voltage (2.4-21kV (distribution)), Distribution Line Details (Isolated Distribution), and Between Poles.

### 30. Enter any important comment or additional information

The screenshot shows the 'HTMP Risk Assessment' app interface. The 'Work Plan' section is expanded, showing a list of risk factors: Overall Tree Condition (Major defects), Tree Defects (multiple trunks, very low codom, unfavorable species, some dead wood, moderate rot, bad branch unions, species prone to failure), Site Conditions (Change in drainage), Visual Crown Health (majorly in decline), Tree Lean (Moderate Lean (8-15 degrees)), Tree Height Factor (Can fall over lowest conductor 1.5-1.9 times), and Likelihood of Line Impact (Near Certain). Below this, the 'Work Plan' section is expanded, showing a 'Comments' field with the text: 'Cottonwood in retrenchment; next to pool and doghouse'. The keyboard is visible at the bottom of the screen.

### 31. Use the target feature to change GPS coordinates of the tree

The screenshot shows the 'HTMP Risk Assessment' app interface. The 'Set Location' screen is displayed, showing a map with a red pin indicating the current location. The map is labeled 'Set Location' and '36.30379236, -119.29045553'. The keyboard is visible at the bottom of the screen.