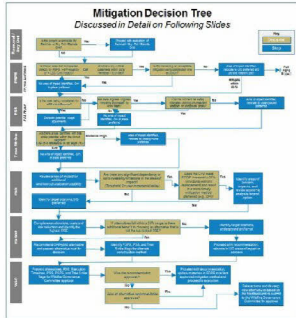


Wildfire Risk Governance Committee
System Hardening Project Approvals

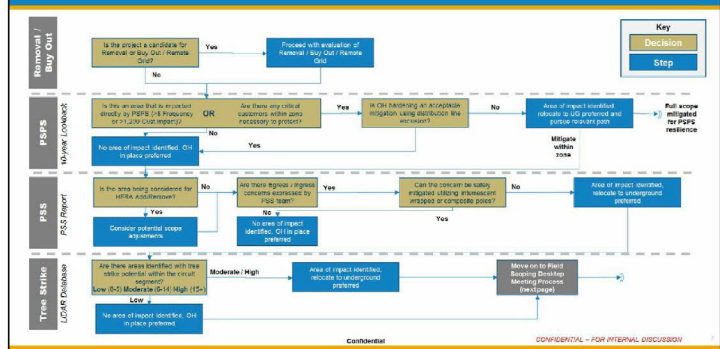
January 29, 2021

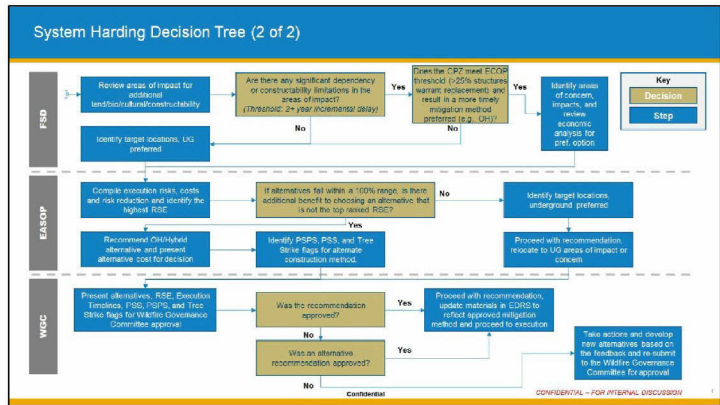
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Decision Tree and Guiding Principles

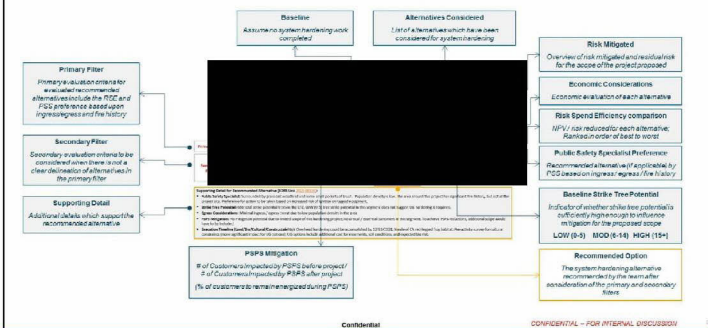


System Hardening Decision Tree (1 of 2)





System Hardening Decision Framework Overview



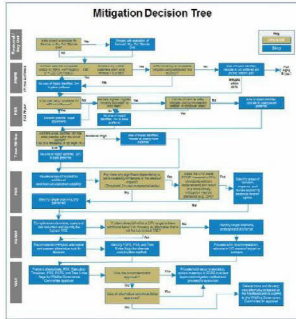
Today's discussion will include mitigation recommendations, as well as additional remote grid projects to be scoped for 2021

The following 3 projects have recommended mitigations:

Order No.	CPZ	Work Bucket	Total MAVF Core Risk Value	Mean MAVF Core Risk Rank	Recommendation	WGC Request
WGC Inform						
1	CLAYTON	ECOP	32.83	377	Hybrid (OH/UG)	Inform
2	Bucks Creek 1101CB	CWSP - Top 50	9.55	11	Hybrid (OH/UG)	Inform
3	Volta	CWSP - Top 250	13	30	OH	Inform

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	Key Questions	Outcome
PPS	Is this an area that is impacted directly by PPS (+6 Frequency or > 1,200 Cust Impact)?	Y N 1 event, OH preferred
	Are there any critical customers within zone necessary to protect?	Y N
	Is O+ hardening an acceptable mitigation using distribution line exclusion?	Y N N/A
PSS	Is the area being considered for HFRA Add/Remove?	Y N
	Ingress/Egress concerns identified by PSS professionals cannot be mitigated by utilizing intumescent wrapped or composite poles.	Y N Ingress / Egress concerns
Time Strike	Moderate (6-14) or high (15+) strike tree potential areas in the segment.	Y N
	Are there any significant dependency or constructability limitations in the areas of impact? (Threshold: 2+ year incremental/delay)	Y N
PSD	Does the CPZ meet ECOP threshold (>25% structures warrant replacement) and result in a more timely mitigation method preferred (e.g., CH)?	Y N
	If alternatives fall within a 100% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y N Hybrid and UG within 100%
EASOP		Hybrid Preferred

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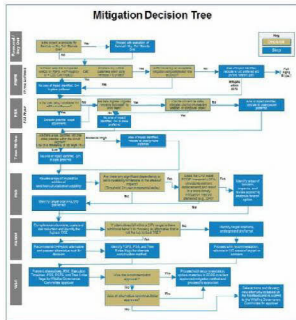
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Clayton 2212 (1.42 Miles) | No System Hardening | Overhead Hardening | Under grounding | Hybrid

Primary Fire

Secondary
Killer

- Supporting Detail for Recommended Alternative (EIRIS Routing [2021-0726](#)):
- **Public Safety Specialist:** Surrounded by grass oak. Population density is low. The area around this project has some fire history. Preference for action to be taken based on increased risk of ignition on lagged equipment.
 - **Strike Free Potential:** (S) total strike potential trees in the CPZ, LOW (D-S) tree strike potential in this segment does not suggest UG hardening is required.
 - **Egress Considerations:** This road is not a main thoroughfare on a daily basis but is a route of egress for citizens from the Clayton Valley area when fire impacts the Clayton Valley area. The road is used for ingress for fire and emergency services from the south.
 - **PSPS Mitigation:** No mitigation potential due to limited scope of this hardening project; no critical / essential customers in this segment. To achieve PSPS reductions, additional scope would have to be included.
 - **Execution Timeline (Land/Bio/Cultural/Constructability):** OH hardening could be accomplished by 12/31/2023; 1.2 miles of CA red-legged frog habitat, CA tiger salamander, and Alameda Whiptail. Pre-activity survey for cultural construct (none significant impact for UG options); UG options include additional cost for assessments, soil conditions, & expected bio risk.



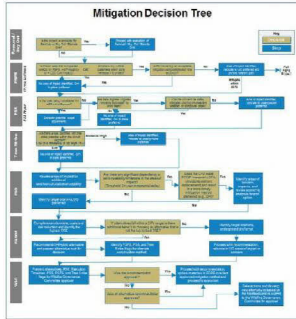
	Key Questions	Outcome
PSPS	Is this an area that is impacted directly by PSPS (+6 Frequency or > 1,200 Cust Impact)?	Y N 3 events, UG Preferred
	Are there any critical customers within zone necessary to protect?	Y N N/A
	Is O+ hardening an acceptable mitigation using distribution line exclusion?	Y N N/A
PSS	Is the area being considered for HFRA Add/Remove?	Y N
	Ingress/Egress concerns identified by PSS professionals cannot be mitigated by utilizing intumescent wrapped or composite poles.	Y N HWY 76, UG preferred
Time Strike	Moderate (6-14) or high (15+) strike tree potential areas in the segment.	Y N
	Are there any significant dependency or constructability limitations in the areas of impact? (Threshold: 2+ year incremental delay)	Y N
PSD	Does the CPZ meet ECOP threshold (>25% structures warrant replacement) and result in a more timely mitigation method preferred (e.g., CH)?	Y N
	If alternatives fall within a 100% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y N PSPS and Ingress/Egress
EASOP		Hybrid 1 Preferred

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INFORM: CWSP TOP 50 – PM# [REDACTED] Bucks Creek 1101 CB

Bucks Creek 1101 (4.73 miles)		No System Hardening	Overhead Hardening	Hybrid 1	Hybrid 2
Primary Filter	[REDACTED]				
Secondary Filter					
Recommended					
<p>Supporting Detail for Recommended Alternative (DERS Link 2021.01.24):</p> <ul style="list-style-type: none"> Public Safety Specialist: Fuel types are consistent with moderate to heavy brush and mixed conifer, however the general area has been heavily fire scarred and the fire scar areas are interspersed with a significant amount of standing and down dead fuel. Wildfire Fuel Potential: 100% total strike potential trees in the CPZ. Moderate (6-8) tree strike potential. Regen Considerations: This project crosses HWY 70 near the Bucks Creek Power House and then parallels the Highway for a roughly 2-mile stretch, and then runs along Scarie Rd, paralleling the Feather River on the canyon opposite side of Highway 70. HWY 70 is a main thoroughfare for emergency responders and to the few residents who live in that direct area. It is also a major route for commerce built by vehicle and on track. If Highway 70 was closed in this area it would make regens and regens difficult and responsible for regens and citizens and economically be substantial to be concerned. There are no alternative routes will in the Feather River Canyon. PSP Mitigation: No mitigation potential due to limited scope of this hardening project; no critical / essential customers in this segment. Cannot achieve PSP reduction due to required overhead conductor over the water crossing near this installation. Execution Timeline (Land/Rel/Cultural/Constructability): Work required during the dry season (May 15 – Oct 15) and/or biomonitoring, and potential Herb restrictions (Jan 2 – July 15) due to owl activity centers, CALTRANS (RSP), treatment restrictions, and 3 culturally sensitive areas in Hybrid 1. Bucks creek (left) or across HWY 70 is undergrounding line consistent with the Hybrid 1 alternative. 					



	Key Questions	Outcome
PPS	Is this an area that is impacted directly by PPS (+6 Frequency or > 1,200 Cust Impact)?	Y N
	Are there any critical customers within zone necessary to protect?	Y N
PSS	Is O+ hardening an acceptable mitigation using distribution line exclusion?	Y N N/A
	Is the area being considered for HFRA Add/Remove?	Y N
Time Strike	Ingress/Egress concerns identified by PSS professionals cannot be mitigated by utilizing intumescent wrapped or composite poles.	Y N
	Moderate (6-14) or high (15+) strike tree potential areas in the segment.	Y N
PSD	Are there any significant dependency or constructability (limitations in the areas of impact? (Threshold: 2+ year incremental/delay)	Y N
	Does the CPZ meet ECOP threshold (>25% structures warrant replacement) and result in a more timely mitigation method preferred (e.g., CH)?	Y N
EASOP	If alternatives fall within a 100% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y N
		OH Preferred

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	Volta 1101 (3.55 miles)	No Systems Hardening	Overhead Hardening	Under-grounding	Hybrid
Primary Filter	[REDACTED]				
Secondary Filter					

Supporting Detail for Recommended Alternative IEDIS Link [2024-017739](#)

- **Public Safety Specialist:** Fuel types are consistent with mainly grass/ oak woodland, brush, and intermixed patches of conifers/Gray Pines. Area has a significant fire history but not directly in the project footprint but shows the ability of the area fuels to resist containment and become a major fire.
- **Strike Tree Potential:** 2 total strike potential trees in the CPZ, LOW (0-5) tree strike potential in this segment does not suggest UG hardening is required. To under-build for most of job.
- **Egress Considerations:** Egresses have multiple ways out of the area, depending on the location of the fire, 21 responders will have 2 access roads.
- **PSPS Mitigation:** No mitigation potential due to limited scope of this hardening project, no critical/ essential customers in this segment. To achieve PSPS reductions, additional scope would have to be included. 2 PSPS operations in 10-year lookback.
- **Execution Timeline (Land/Bio/Cultural/Constructability):** Work required during the dry season (May 15 – Oct 15) and/or biomonitoring. Mitigation expenses should be considered for ground disturbance. Potential permitting for multiple waterways. Tribal monitoring may be required. Cultural resources work and reporting may need be required, 1-2 days of SHC time.