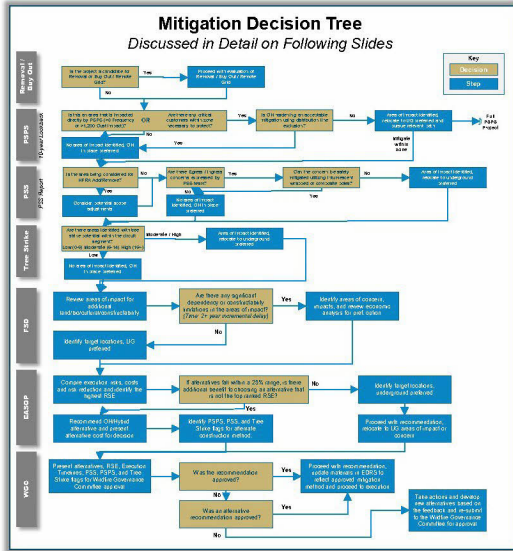


**Wildfire Risk Governance Committee**  
**System Hardening Project Approvals**

January 28, 2021

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To streamline the approval process, the System Hardening Team has developed a decision tree to help guide mitigation selection



### System Hardening Decision Tree

#### Objective:

Streamline the mitigation level approvals for system hardening by setting bounds on which projects come before the committee for approval

#### Decision Tree in Action:

- System Hardening Team will leverage the decision tree in all mitigation scoping discussions
- Any jobs clearly defined by the decision tree logic will come to the committee as an inform
- All jobs which are "on the edge" or require exceptions to the decision tree will be brought to the committee for approval

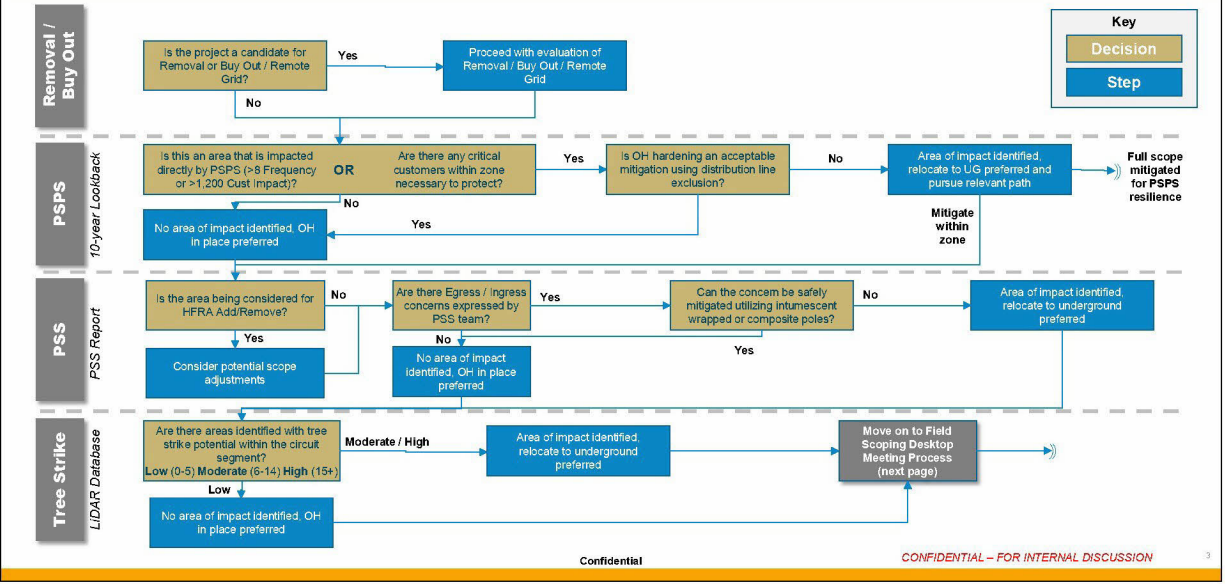
#### Decision Tree Approval

Team will request approval after demonstrating with tonight's projects

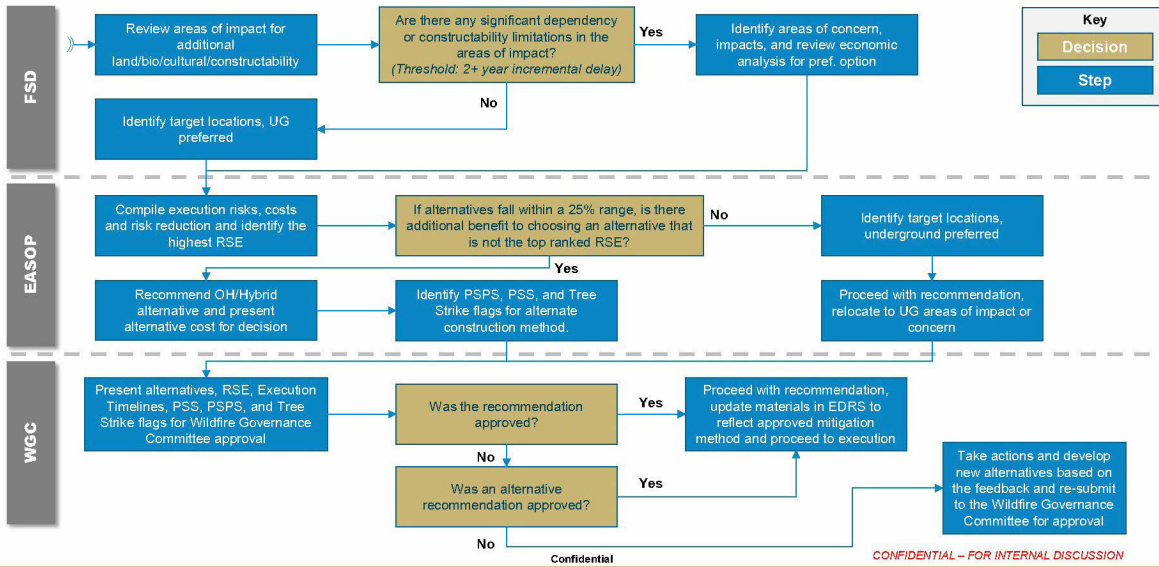
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# System Harding Decision Tree (1 of 2)



# System Harding Decision Tree (2 of 2)



The decision tree will be stress tested using the following mitigation level project approvals

The following 6 projects are for discussion today:

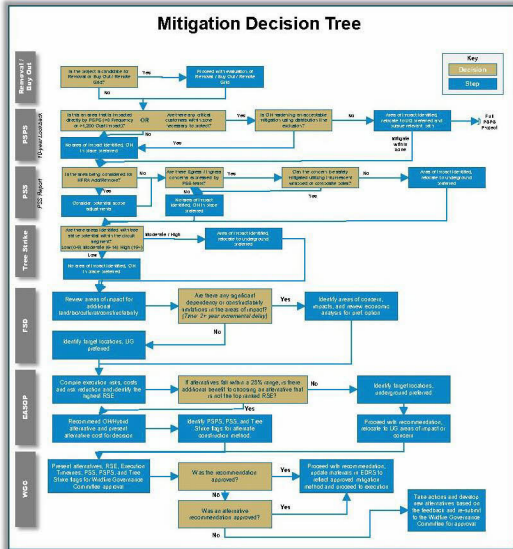
	Order No.	CPZ	Work Bucket	Total MAVF Core Risk Value	Mean MAVF Core Risk Rank	Recommendation	1/28 Approval
1		KONOCTI	CWSP - Top 50	51.70	9	OH	PENDING
2		LAS GALLINAS A	ECOP	13.50	215	UG	PENDING
3		SILVERADO	ECOP	58.77	279	Hybrid (OH/UG)	PENDING
4		CLAYTON	ECOP	32.63	377	Hybrid (OH/UG)	PENDING
5		Volta	CWSP - Top 250	13	39	OH	PENDING
6		Bucks Creek 1101CB	CWSP - Top 50	9.55	11	Hybrid (OH/UG)	PENDING

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Committee Future State: INFORM



	Key Decisions	Outcome	
PPSP	Is this an area that is impacted directly by PPS (>8 Frequency or >1,200 Cust Impact)?	Y	N
	Are there any critical customers within zone necessary to protect?	Y	N
	Is OH hardening an acceptable mitigation using distribution line exclusion?	Y	N
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
Tree 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
EASOP	Are alternatives fall within a 25% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y	N
	<b>OH Preferred</b>		

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Proposed Scope: CWSP TOP 50 Miles – PM# [REDACTED]  
 Konocti 1102 LR 965078

	Konocti 1102 (2.53 Miles)	No System Hardening	Overhead Hardening	Under-grounding	Hybrid
Project Scope Risk Reduced After Mitigation	-	-	12.93	20.65	14.03
Project Scope Residual Risk Value	20.86	-	7.93	.21	6.83
Overall Miles Installed	2.53	2.53	2.53	2.78	2.32
OH System Hardening Cost (\$2.5M/risk-mile mitigated)	-	-	-	-	-
UG System Hardening Cost (\$8.8M/risk-mile mitigated)	-	-	-	-	-
Line Removal Cost	-	-	-	-	-
Total Capital Cost (AACE Class 5)	-	-	-	-	-
Average O&M Cost (per year)	-	-	-	-	-
NPV @ 6.8% discount rate	-	-	-	-	-
<b>Primary Filter</b>					
\$ NPV per unit of risk (RSE)	-	-	-	-	-
PSS Preference (Ingress/egress/fire history)	Not-Preferred	Satisfactory	Satisfactory	Satisfactory	Satisfactory
<b>Secondary Filter</b>					
Strike Tree Potential	Moderate Fall-In Risk	Low Fall-In Tree Risk	N/A	Low Fall-In Tree Risk	Low Fall-In Tree Risk
Ingress / Egress	LOW	Satisfactory	Satisfactory	Satisfactory	Satisfactory
PSPS Mitigation (42 customers)	42 / 42 (0%)	42 / 42 (0%)	42 / 42 (0%)	42 / 42 (0%)	42 / 42 (0%)
Execution timeline (2021, 2022, 2022+)	-	2021	2022+	2022+	2022+
Other (Operational Considerations, etc.)	-	-	-	-	Path deemed not viable
			Recommended		

**Supporting Detail for Recommended Alternative (EDRS Link [2021-01900](#)):**

- **Public Safety Specialist:** Fuel types for project area consist of grassy oak woodland intermixed with heavy brush with patches of gray pine conifer. Fuel loading can range from light to heavy throughout the surrounding area. This project has a significant number of agricultural plots with grape vineyards and other produce in the surrounding area. Population density for this area would be considered low however there are several small communities within a 2-mile radius of the project site.
- **Strike Tree Potential:** 76 total strike potential trees in the CPZ, LOW (0-5) tree strike potential in this segment does not suggest UG hardening is required.
- **Egress Considerations:** No major egress concern
- **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):** Work required during the dry season (May 15 – Oct 15) and/or biomonitoring. No mitigation expenses expected as long as work is within the road ROW.

# Key Decision – Approval to Execute CWSP projects

<b>Approval Status</b>	PENDING
------------------------	---------

<b>Decision Detail</b>
Request that these scoped projects are approved as is as all OH hardened facilities as determined by the Field Scoping Team.
EDRS – <a href="#">2021-01900</a>

<b>Concerns and Mitigations</b>

<b>Approvals</b>	
[Redacted]	

<b>Action Items and Validations</b>	

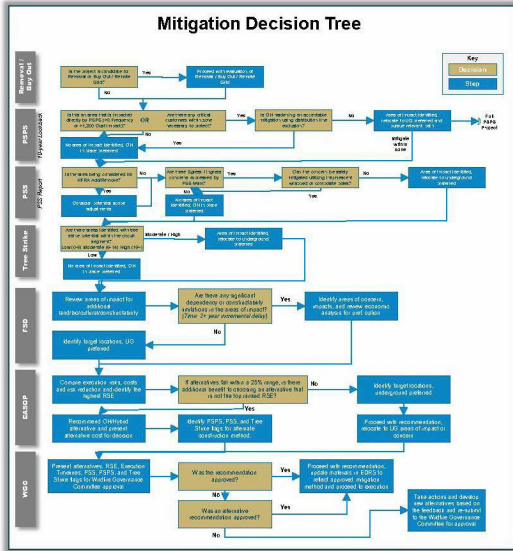
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Committee Future State: INFORM



	Key Decisions	Outcome	
PPSP	Is this an area that is impacted directly by PSPS (>8 Frequency or >1,200 Cust Impact)?	Y	N
	Are there any critical customers within zone necessary to protect?	Y	N
	Is OH hardening an acceptable mitigation using distribution line exclusion?	Y	N
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
Tree Strike	Moderate (6-14) or high (15+) strike tree potential areas in the segment.	Y	N
FSD	Are there any significant dependency or constructability limitations in the areas of impact? (Threshold: 2+ year incremental delay)	Y	N
EASOP	If alternatives fall within a 25% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y	N
		<b>UG Preferred</b>	

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Proposed Scope: ECOP Top 20% - PM [REDACTED] – Las Gallinas A [REDACTED] H01

Las Gallinas A 1105 (2.15 Miles)		No System Hardening	Overhead Hardening	Under-grounding	Hybrid
Project Scope Risk Reduced After Mitigation		-	3.20	5.11	4.68
Project Scope Residual Risk Value		5.16	1.96	0.05	0.48
Overall Miles Installed		-	2.15	3.15	2.23
OH System Hardening Cost (\$1.9M/mile)		-	[REDACTED]	[REDACTED]	[REDACTED]
UG System Hardening Cost (\$6.6M/mile)		-	[REDACTED]	[REDACTED]	[REDACTED]
Line Removal Cost		-	[REDACTED]	[REDACTED]	[REDACTED]
Total Capital Cost		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Average O&M Cost (per year)		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
NPV @ 6.8% discount rate		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Primary Filter</b>	\$ NPV per unit of risk (RSE)	-			
	PSS Preference (Ingress/egress/fire history)	Not Preferred	Not Satisfactory	Preferred	Satisfactory
<b>Secondary Filter</b>	Strike Tree Potential	High Fall-in Risk	Moderate Fall-in Risk	Preferred	Moderate Fall-in Risk
	Egress – Preferred option	Moderate	Not Satisfactory	Preferred	Satisfactory
	PSPS Mitigation (57 customers)	57 / 57 (0%)	57 / 57 (0%)	57 / 57 (0%)	57 / 57 (0%)
	Execution timeline (2021, 2022, 2022+)	-	2021	2022+ <i>Recommended</i>	2022+

**Supporting Detail for Recommended Alternative (EDRS Link [2021-02773](#)):**

- **Public Safety Specialist:** Surrounded by grass oak woodland, and brush, intermixed with different varieties of coastal pine and fir trees. Population density is low. The area around this project has no significant fire history. Preference for action to be taken based on increased risk of ignition on tagged equipment.
- **Strike Tree Potential:** 359 total strike potential trees in the CPZ, MEDIUM (6-15) tree strike potential in this segment.
- **Egress Considerations:** Lucas Valley road is a main east and west road between Santa Venetia and Nicasio Valley road.
- **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):** Overhead hardening could be accomplished by 12/31/2021; 1 mile of CA red-legged frog habitat; Pre-activity survey for cultural constraints (more significant impact for UG options); UG options include additional cost for easements, soil conditions, and expected bio risk.

## Key Decision – Approval to Execute ECOP projects

<b>Approval Status</b>	PENDING
------------------------	---------

<b>Decision Detail</b>
Request that these scoped projects are approved as is as all UG hardened facilities as determined by the Field Scoping Team.
EDRS – <a href="#">2021-02773</a>

<b>Concerns and Mitigations</b>

<b>Approvals</b>	
[Redacted]	

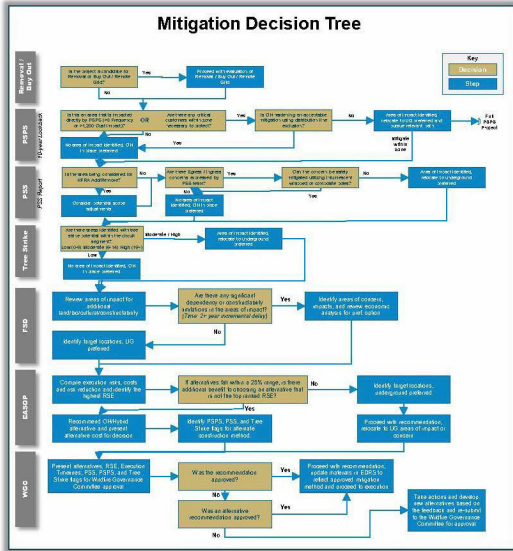
<b>Action Items and Validations</b>	

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Committee Future State: INFORM



	Key Decisions	Outcome		
PSPP	Is this an area that is impacted directly by PSPP (>8 Frequency or >1,200 Cust Impact)?	Y	N	UG mainline may achieve future benefit
	Are there any critical customers within zone necessary to protect?	Y	N	
	Is OH 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.
	Ingress/Egress concerns identified by PSS professionals cannot be mitigated by utilizing intumescent wrapped or composite poles.	Y	N	
Tree Strike	Moderate (6-14) or high (15+) strike tree potential areas in the segment.	Y	N	
EASOP	Are there any significant dependency or constructability limitations in the areas of impact? (Threshold: 2+ year incremental delay)	Y	N	
FSD	If alternatives fall within a 25% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y	N	OH top ranked, hybrid within 25%
				Hybrid Preferred

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Proposed Scope: ECOP Top 20% - PM [REDACTED] – Silverado [REDACTED] H05

	Silverado 2104 (6.85 Miles)	No System Hardening	Overhead Hardening	Under-grounding	Hybrid
Project Scope Risk Reduced After Mitigation	-	-	8.20	13.09	11.32
Project Scope Residual Risk Value	13.22	-	5.02	0.13	1.90
Overall Miles Installed	6.85	6.85	6.85	10.79	9.56
OH System Hardening Cost (\$1.8M/mile mitigated)	-	-	-	-	-
UG System Hardening Cost (\$8.3M/mile mitigated)	-	-	-	-	-
Line Removal Cost	-	-	-	-	-
Total Capital Cost (AACE Class 5)	-	-	-	-	-
Average O&M Cost (per year)	-	-	-	-	-
NPV @ 6.8% discount rate	-	-	-	-	-
<b>Primary Filter</b>	\$ NPV per unit of risk (RSE)	-	-	-	-
	PSS Preference (Ingress/egress/fire history)	Not Preferred	Satisfactory	Satisfactory	Satisfactory
<b>Secondary Filter</b>	Strike Tree Potential	Moderate Fall-in Risk	Low Fall-in Risk	N/A	Low-Fall-in Risk
	Ingress / Egress	Moderate	Satisfactory	Satisfactory	Satisfactory
	PSPS Mitigation (349 Customers)	698 / 698 (0%)	698 / 698 (0%)	698 / 698 (0%)	698 / 698 (0%)
	Execution timeline (2021, 2022, 2022+)	-	2021	2022+	2022+
	Other (Operational Considerations, etc.)	-	-	-	-

Recommended

**Supporting Detail for Recommended Alternative (EDRS Link [2021-00327](#)):**

- **Public Safety Specialist:** Agricultural land & intermixed grass-oak woodland and some small pockets of brush. Population density is low. The area around this project has significant fire history, but not at the project site. Preference for action to be taken based on increased risk of ignition on tagged equipment.
- **Strike Tree Potential:** 828 total strike potential trees in the CPZ, LOW (0-5) tree strike potential in this segment does not suggest UG hardening is required.
- **Egress Considerations:** Pope Valley Road is the main road into and out of the area for both civilians and first responders. The road needs to stay open during an emergency incident due to the loss would stop all traffic in either direction.
- **PSPS Mitigation:** No mitigation potential due to limited scope of this hardening project; no critical / essential customers in this segment. Undergrounding mainline with Hybrid allows for future PSPS benefits. To achieve PSPS reductions now, additional scope would have to be included.
- **Execution Timeline (Land/Bio/Cultural/Constructability):** Overhead hardening could be accomplished by 12/31/2021; Private road on extensively overland route which will require up to 32 separate easements and cross country through vineyards and creeks; Environmental considerations include frog habitat, pond turtle, and stream crossings.

# Key Decision – Approval to Execute ECOP projects

<b>Approval Status</b>	PENDING
------------------------	---------

**Decision Detail**

Request that these scoped projects are approved as is as a Hybrid (OH/UG) hardened facilities as determined by the Field Scoping Team.

EDRS - [2021-00327](#)

**Concerns and Mitigations**

Approvals	
[Redacted]	

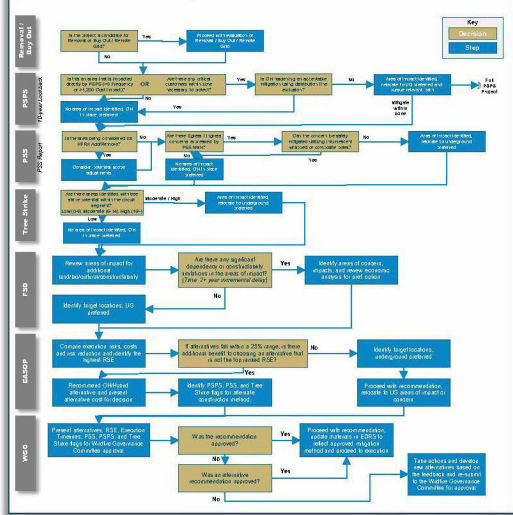
Action Items and Validations	

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**Mitigation Decision Tree**



**Committee Future State: Decision**

	Key Decisions	Outcome	
PSPS	Is this an area that is impacted directly by PSPS (>8 Frequency or >1,200 Cust Impact)?	Y	N
	Are there any critical customers within zone necessary to protect?	Y	N
	Is OH hardening an acceptable mitigation using distribution line exclusion?	Y	N
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
Tree Strike	Moderate (6-14) or high (15+) strike tree potential areas in the segment.	Y	N
FSD	Are there any significant dependency or constructability limitations in the areas of impact? (Threshold: 2+ year incremental delay)	Y	N
EASOP	If alternatives fall within a 25% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y	N
		<b>Hybrid Preferred</b>	

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Proposed Scope: ECOP Top 20% - PM [REDACTED] – Clayton [REDACTED] H01

	Clayton 2212 (1.42 Miles)	No System Hardening	Overhead Hardening	Under-grounding	Hybrid
Project Scope Risk Reduced After Mitigation	-	-	1.48	2.36	1.99
<b>Project Scope Residual Risk Value</b>	<b>2.39</b>	<b>0.91</b>	<b>0.03</b>	<b>0.03</b>	<b>0.40</b>
Overall Miles Installed	-	-	1.42	3.15	2.82
OH System Hardening Cost (\$1.8M/mile)	-	-	[REDACTED]		
UG System Hardening Cost (\$8.2M/mile)	-	-			
Line Removal Cost	-	-			
Total Capital Cost	-	-			
Average O&M Cost (per year)	-	-			
NPV @ 6.8% discount rate	-	-	-	-	-
<b>Primary Filter</b>	\$ NPV per unit of risk (RSE)	-	Satisfactory	Preferred	Satisfactory
	PSS Preference (Ingress/egress/fire history)	Not Preferred	Satisfactory	Preferred	Satisfactory
<b>Secondary Filter</b>	Strike Tree Potential	Moderate Fall-in Risk	Low Fall-in Risk	N/A	Low Fall-in Risk
	Ingress/Egress – Preferred option	Moderate	Not Preferred	Preferred	Satisfactory
	PSPS Mitigation (26 Customers)	26 / 26 (0%)	26 / 26 (0%)	26 / 26 (0%)	26 / 26 (0%)
	Execution timeline (2021, 2022, 2022+)	-	2021	2022+	2022+

Recommended

**Supporting Detail for Recommended Alternative (EDRS Routing 2021-02769):**

- **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 tagged equipment.
- **Strike Tree Potential:** 636 total strike potential trees in the CPZ, LOW (0-5) 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 12/31/2021; 1.2 miles of CA red-legged frog habitat, CA tiger salamander, and Alameda Whipsnake; Pre-activity survey for cultural constraints (more significant impact for UG options); UG options include additional cost for easements, soil conditions, & expected bio risk.



# Key Decision – Approval to Execute ECOP projects

<b>Approval Status</b>	PENDING
------------------------	---------

**Decision Detail**

Request that these scoped projects are approved as is as a Hybrid (OH/UG) hardened facilities as determined by the Field Scoping Team.

EDRS – [2021-02769](#)

**Concerns and Mitigations**

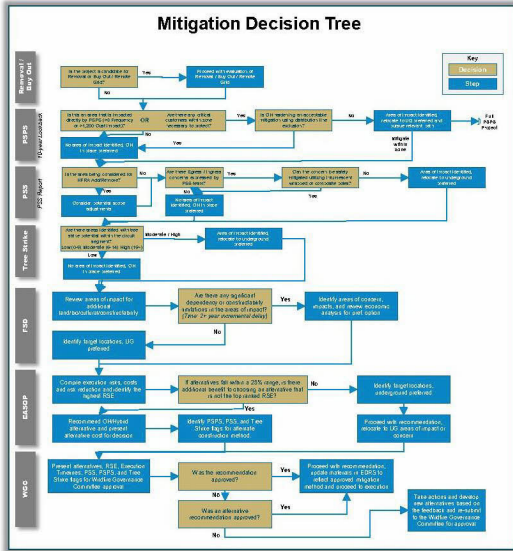
Approvals	

Action Items and Validations	

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Committee Future State: Decision

Key Decisions		Outcome	
PSPS	Is this an area that is impacted directly by PSPS (>8 Frequency or >1,200 Cust Impact)?	Y	N
	Are there any critical customers within zone necessary to protect?	Y	N
	Is OH hardening an acceptable mitigation using distribution line exclusion?	Y	N
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
Tree Strike	Moderate (6-14) or high (15+) strike tree potential areas in the segment.	Y	N
FSD	Are there any significant dependency or constructability limitations in the areas of impact? (Threshold: 2+ year incremental delay)	Y	N
EASOP	If alternatives fall within a 25% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y	N
		<b>Overhead Preferred</b>	

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Proposed Scope: CWSP TOP 250 – PM# [REDACTED] Volta 1101 LR 49742

	Volta 1101 (3.55 miles)	No System Hardening	Overhead Hardening	Under-grounding	Hybrid
Project Scope Risk Reduced After Mitigation	-	-	8.06	12.87	10.79
<b>Project Scope Residual Risk Value</b>	<b>13</b>	<b>13</b>	<b>4.94</b>	<b>0.13</b>	<b>2.21</b>
Overall Miles Installed	3.55	3.55	3.55	6.66	5.29
OH System Hardening Cost (\$1.9M/risk-mile mitigated)	-	-	-	-	-
UG System Hardening Cost (\$6.2M/risk-mile mitigated)	-	-	-	-	-
Line Removal Cost	-	-	-	-	-
<b>Total Capital Cost (AACE Class 5)</b>					
<b>Average O&amp;M Cost (per year)</b>					
<b>NPV @ 6.8% discount rate</b>					
<b>Primary Filter</b>	<b>\$ NPV per unit of risk (RSE)</b>	-	-	-	-
	<b>PSS Preference (Ingress/egress/fire history)</b>	-	Satisfactory		
<b>Secondary Filter</b>	<b>Strike Tree Potential</b>	Low Fall-In Risk	Low Fall-In Risk	N/A	Low Fall-In Risk
	<b>Ingress / Egress</b>	LOW	Satisfactory	Satisfactory	Satisfactory
	<b>PSPS Mitigation (19 customers)</b>	38 / 38 (0%)	38 / 38 (0%)	38 / 38 (0%)	38 / 38 (0%)
	<b>Execution timeline (2021, 2022, 2022+)</b>	-	2021	2022+	2022+
	<b>Other (Operational Considerations, etc.)</b>	-	-	-	-
			Recommended		

**Supporting Detail for Recommended Alternative (EDRS Link [2021-03779](#)):**

- **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. Tx under-build for most of job.
- **Egress Considerations:** Evacuees have multiple ways out of the area, depending on the location of the fire. 1<sup>st</sup> 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 to be required, 1-2 days of SME time.

# Key Decision – Approval to Execute CWSP Top 250 projects

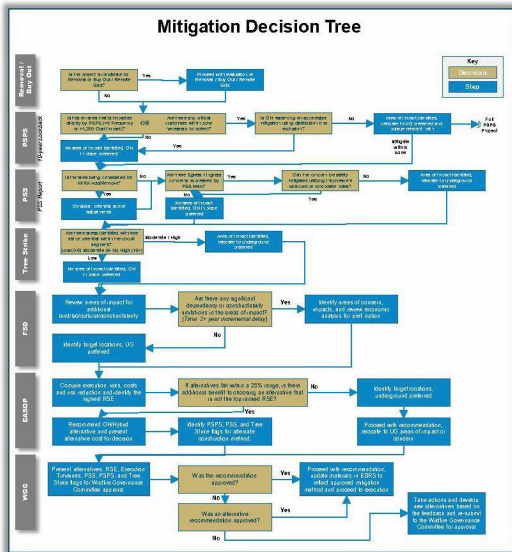
<b>Approval Status</b>	PENDING
------------------------	---------

<b>Decision Detail</b>
Request that these scoped projects are approved as is as all OH hardened facilities as determined by the Field Scoping Team.
EDRS – <a href="#">2021-03779</a>

<b>Concerns and Mitigations</b>

<b>Approvals</b>	

<b>Action Items and Validations</b>	
Decision Framework	Establish clear decision criteria for the WFRG make a decision upon system hardening mitigation alternatives proposed - COMPLETE



Committee Future State: Decision

	Key Decisions	Outcome		
PPSP	Is this an area that is impacted directly by PPS (>8 Frequency or >1,200 Cust Impact)?	Y	N	9 events, UG Preferred
	Are there any critical customers within zone necessary to protect?	Y	N	
	Is OH hardening an acceptable mitigation using distribution line exclusion?	Y	N	
PSS	Is the area being considered for HFRA Add/Remove?	Y	N	N/A
	Ingress/Egress concerns identified by PSS professionals cannot be mitigated by utilizing intumescent wrapped or composite poles.	Y	N	
Tree Strike	Moderate (6-14) or high (15+) strike tree potential areas in the segment.	Y	N	HWY 70, UG preferred
FSD	Are there any significant dependency or constructability limitations in the areas of impact? (Threshold: 2+ year incremental delay)	Y	N	
EASOP	If alternatives fall within a 25% range, is there additional benefit to choosing an alternative that is not the top ranked RSE?	Y	N	> 25%, PSPP and Ingress/Egress
				Hybrid 1 Preferred

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

	Bucks Creek 1101 (4.73 miles)	No System Hardening	Overhead Hardening	Hybrid 1	Hybrid 2
Project Scope Risk Reduced After Mitigation	-	-	4.73	4.99	4.02
<b>Project Scope Residual Risk Value</b>	<b>9.55</b>	<b>3.63</b>	<b>0.13</b>	<b>0.61</b>	<b>0.61</b>
Overall Miles Installed	4.73	-	4.73	5.42	4.02
OH System Hardening Cost (\$2.8M/risk-mile mitigated)	-	-	-	-	-
UG System Hardening Cost (\$4.4M/risk-mile mitigated)	-	-	-	-	-
Line Removal Cost (\$0.106M/risk-mile mitigated)	-	-	-	-	-
<b>Total Capital Cost (AAACE Class 5)</b>					
<b>Average O&amp;M Cost (per year)</b>					
<b>NPV @ 6.8% discount rate</b>					
<b>Primary Filter</b>	<b>\$ NPV per unit of risk (RSE)</b>	-	-	-	-
	<b>PSS Preference (Ingress/egress/fire history)</b>	-	<b>Non-satisfactory</b>	<b>Satisfactory</b>	<b>Non-satisfactory</b>
<b>Secondary Filter</b>	<b>Strike Tree Potential</b>	<b>Moderate Fall-In Risk</b>	<b>Low Fall-In Tree Risk</b>	<b>Low Fall-In Tree Risk</b>	<b>Low Fall-In Tree Risk</b>
	<b>Ingress / Egress</b>	<b>Moderate</b>	<b>Non-satisfactory</b>	<b>Satisfactory</b>	<b>Non-satisfactory</b>
	<b>PSPS Mitigation (5 customers)</b>	<b>45 / 45 (0%)</b>	<b>45 / 45 (0%)</b>	<b>45 / 45 (0%)</b>	<b>45 / 45 (0%)</b>
	<b>Execution timeline (2021, 2022, 2022+)</b>	-	<b>2021</b>	<b>2022+</b>	<b>2022+</b>
	<b>Other (Operational Considerations, etc.)</b>	-	-	-	-
				<b>Recommended</b>	

**Supporting Detail for Recommended Alternative (EDRS Link 2021-03744):**

- **Public Safety Specialist:** Fuel types are consistent with moderate to heavy brush and mixed conifer, however the general area has been heavily fire scared and the fire scar areas are intermixed with a significant amount of standing and down dead fuel.
- **Strike Tree Potential:** 105 total strike potential trees in the CPZ, Moderate (6-15) tree strike potential.
- **Egress Considerations:** This project crosses HWY 70 near the Bucks Creek Powerhouse and then parallels the highway for a roughly 2-mile stretch, and then runs along Storrie Rd. paralleling the Feather River on the canyon opposite side of Highway 70. HWY 70 is a main thoroughfare for ingress/egress for emergency responders and to the few residents who live in that direct area; it is also a major route for commerce both by vehicle and railroad. If Highway 70 was closed in this area it would make ingress and egress difficult; if not impossible for responders and citizens and economically be a substantial hit to commerce. There are no alternative routes within the Feather River Canyon.
- **PSPS Mitigation:** No mitigation potential due to limited scope of this hardening project; no critical / essential customers in this segment. Cannot achieve PSPS reduction due to required overhead conductor over the water crossing near the substation.
- **Execution Timeline (Land/Bio/Cultural/Constructability):** Work required during the dry season (May 15 – Oct 15) and/or biomonitoring, and potential Heli restrictions (Feb 2 – July 15) due to owl activity centers. CALTRANS ROW, easement restrictions, and 1 culturally sensitive areas in Hybrid 1. Butte work further down HWY 70 is undergrounding line consistent with the Hybrid 1 alternative.

# Key Decision – Approval to Execute CWSP Top 250 projects

<b>Approval Status</b>	PENDING
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<b>Decision Detail</b>
Request that these scoped projects are approved as is as all OH hardened facilities as determined by the Field Scoping Team.
EDRS – <a href="#">2021-03744</a>

<b>Concerns and Mitigations</b>

<b>Approvals</b>	

<b>Action Items and Validations</b>	
Decision Framework	Establish clear decision criteria for the WFRG make a decision upon system hardening mitigation alternatives proposed - COMPLETE

## Key Decision – Approval of System Hardening Decision Tree

<b>Approval Status</b>	PENDING
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### Decision Detail

Request that the System Hardening Decision tree be approved to streamline the mitigation approval process. Key tenets of the decision include:

- System Hardening Team will leverage the decision tree in all mitigation scoping discussions
- Any jobs clearly defined by the decision tree logic will come to the committee as an inform
- All jobs which are "on the edge" or require exceptions to the decision tree will be brought to the committee for approval

### Concerns and Mitigations

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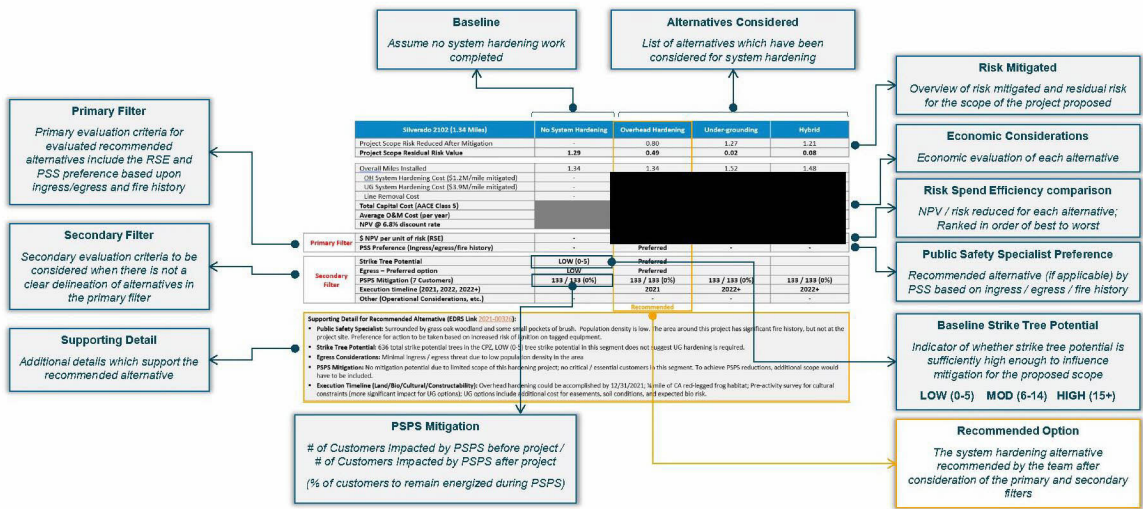
### Approvals

[Redacted]	

### Action Items and Validations




# System Hardening Decision Framework Overview



Confidential

CONFIDENTIAL - FOR INTERNAL DISCUSSION