

CWSP SYSTEM HARDENING FIELD SCOPING DOCUMENT

PM: 35191318	Project Name: ECOP - SILVERADO 2102 - H02-LR58626	
Notification: 119518390	Region: Bay Area	City: Saint Helena
Project Manager: [REDACTED]	Division: North Bay	County: Napa

Proposed Project Scope¹:

	Desktop Meeting Results			ADE Fielding Results		
	Miles	Unit Cost (\$M)	Total Cost (\$M)	Miles	Unit Cost (\$M)	Total Cost (\$M)
Harden in Place (OH only)	[REDACTED]	[REDACTED]	\$ 2.67	[REDACTED]	[REDACTED]	\$ 0.00
Convert OH to UG	[REDACTED]	[REDACTED]	\$ 0.00	[REDACTED]	[REDACTED]	\$ 0.00
Relocation (OH to OH location)	[REDACTED]	[REDACTED]	\$ 0.00	[REDACTED]	[REDACTED]	\$ 0.00
Reconfigure	Remove	[REDACTED]	\$ 0.00	[REDACTED]	[REDACTED]	\$ 0.00
		Add	\$ 0.00	[REDACTED]	[REDACTED]	\$ 0.00
Totals	[REDACTED]	[REDACTED]	\$ 2.67	[REDACTED]	[REDACTED]	\$ 0.00

1. This table is to be filled out by Project Manager detailing the change in units and costs before and after the Field Scoping Process is completed.

A) Field Scoping Team - Desktop Meeting Notes

The following are required outputs to be discussed in the meeting:

- Main Route(s) of Egress
- Land and Environmental Risk(s)
- Vegetation density and risk assessment
- Construction review (area(s) of concern)

Additional Option(s) or Comment(s):

Bio Constraints

1. There is a bald eagle CNDDDB occurrence at Lake Hennessey. Bald eagle surveys required prior to the start of the project, **if nests are present LOP of January 1st and August 15th.**

2. There is California red-legged frog BAHCP modeled habitat within the project area, no constraints as long as species-specific AMMs are implemented.

Could potentially require work during the dry season (May 15 - Oct 15) and/or biomonitoring. Mitigation expenses should be considered for undergrounding portions within modeled habitat. Roughly [REDACTED]

3. Potential suitable habitat for foothill yellow-legged frog and western pond turtles is also present. **Could potentially require work during the dry season (May 15 - Oct 15) and/or biomonitoring.**

4. There are 2 stream crossings and 2 potential waterways. **Potential Permitting***

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Cultural Constraints

OH only: No constraints

Potential for field work but likely less than one week of fieldwork

UG only: Possible cost constraint

Total fieldwork for pre-activity survey and spot check monitoring would likely exceed one week fieldwork

EFS Constraints

No Constraints

NOA was identified but **PGE ENV-1002P-02, Naturally Occurring Asbestos from Construction and Grading Operations, will be implemented**

PSS Review

- Area hit by every PSPS event last year

Public Safety Specialist Evaluation of Fuels, Fire History, Ingress and Egress within Project Area

Project:

- Silverado 2102 H02-LR58626

Phases:

- All Phases

CPUC Fire Threat Tier:

- All of Phases of the project are within Tier 3 of the High Fire Threat District map.

Location of project, fuel types, and population density:

- The project is located off Greenfield road off of Conn Valley road which are both narrow one to one and a half lane paved county and private roads with no shoulders.
- Silverado 2102 project is surrounded by agricultural land and intermixed with grass oak woodland
- The population density is considered low due to rural ranch/farm type setting of the area.

Fire History:

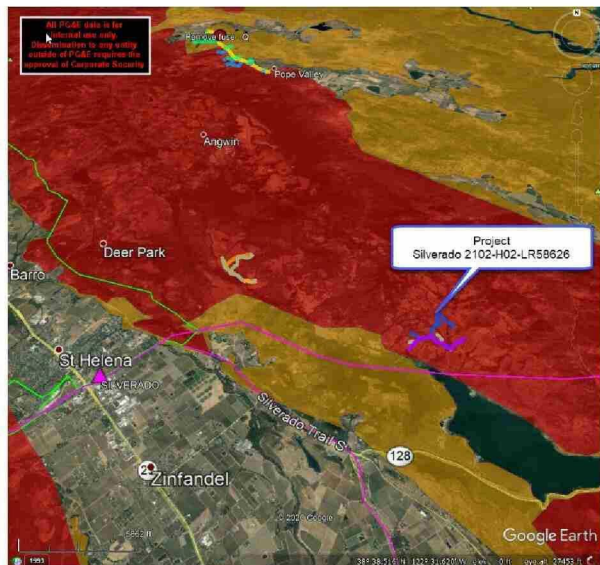
- This area has significant fire history directly impacting the project area. These fires include the Glass and LNU Complex of 2020, Kincade Fire of 2019, County Fire 2018, Atlas, Tubbs and Nuns Fires of 2017, Rocky, Valley, and Jerusalem of 2015.

Routes of travel for first responders and evacuees if a fire happens:

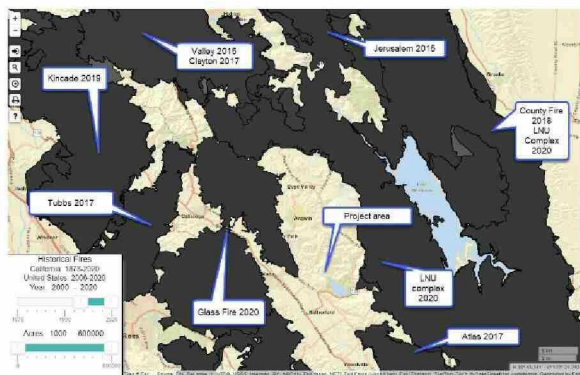
- The area of the project is off of rural one to one and a half lane roads with no shoulders.
- These road dead end out by the project.
- Even though these roads are the only way in and out of the area, the population density is so limited, they will not be a major egress route for civilians.
- The roads will be the only ingress route for first responders.

- They need to be kept open since they are the only way into this area.

Project area:



Fire History:



Roads:

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Desk-Top Review Results

Purpose: This checklist is to be used to methodically analyze the project to determine final scope to eliminate/mitigate the fire risk to the maximum extent.

Overhead Line Elimination:

Yes No **DER alternatives to consider** (these location(s) to be sent to [REDACTED])

Yes No **Idle facilities to remove** (These location(s) to be sent to [REDACTED])

Yes No **Redundant ties to remove** (These location(s) should be run through Distribution Reliability Planning)

SAP Equip. ID (Start)	SAP Equip. ID (Finish)	OH Elimination Type (DER, Idle, Tie Rem.)	Additional Notes:
1*****	1*****		
1*****	1*****		
1*****	1*****		
1*****	1*****		
1*****	1*****		

Overhead to Underground Conversion:

Yes No **Lines to be considered for UG** (These location(s) to be sent to [REDACTED])

SAP Equip. ID (Start)	SAP Equip. ID (Finish)	Trench, Bore, or Plow-in	Additional Notes:
1*****	1*****		
1*****	1*****		

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1*****	1*****		
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There are several factors that should be considered in identifying these potential overhead to underground conversions:

- Is there a viable route available? Is there a dedicated street/easement available?
- What is the feasibility of new land rights? What is the soil condition?
- Are there a significant number of service drops, tap-lines, or other overhead equipment?

Relocation of Facilities:

Yes No **Lines to be considered for relocation** (These location(s) to be sent to [REDACTED])

SAP Equip. ID (Start)	SAP Equip. ID (Finish)	OH, Trench, Bore, or Plow-in	Additional Notes:
1*****	1*****		
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There are numerous other strategies that may be employed or prepared for in scoping a CWSP project. The following examples should be considered, and teams should be invited to participate:

- Rapid Earth Fault Current-Limiter (REFCL) – This system can detect phase-to-earth faults. They then cancel the voltage on the fault within milliseconds of detecting it and limit the voltage of the fault to below the point where it can start a fire. This is only applicable on 3 wire systems and it requires significant modifications to the circuits.
 - Yes No **Circuit being considered for REFCL?** (Please include [REDACTED])
 - If Yes, then System Automation will need to provide Planning support in adjusting necessary scope to support a future REFCL protection scheme.

- Resiliency Zones (RZ)- These are areas deemed critical in nature to support life and health in an area during significant outages and PSPS events. If in Tier 2/3 areas, underground is required. This needs to be considered when designing these zones.
 - Yes No **Circuit being considered for an RZ?** (Please include [REDACTED])
 - If Yes, additional UG and SCADA equipment may be required to support. Microgrid Strategy Implementation will need to provide Planning support in adjusting necessary scope to allow for future RZ's in the area.

Post Field Check Results

This section filled out by Santa Rosa Estimating. Analysis based on Field Visit on 12/23/2020 – [REDACTED]

Overhead Line Elimination:

No line elimination identified/possible.

Overhead to Underground Conversion:

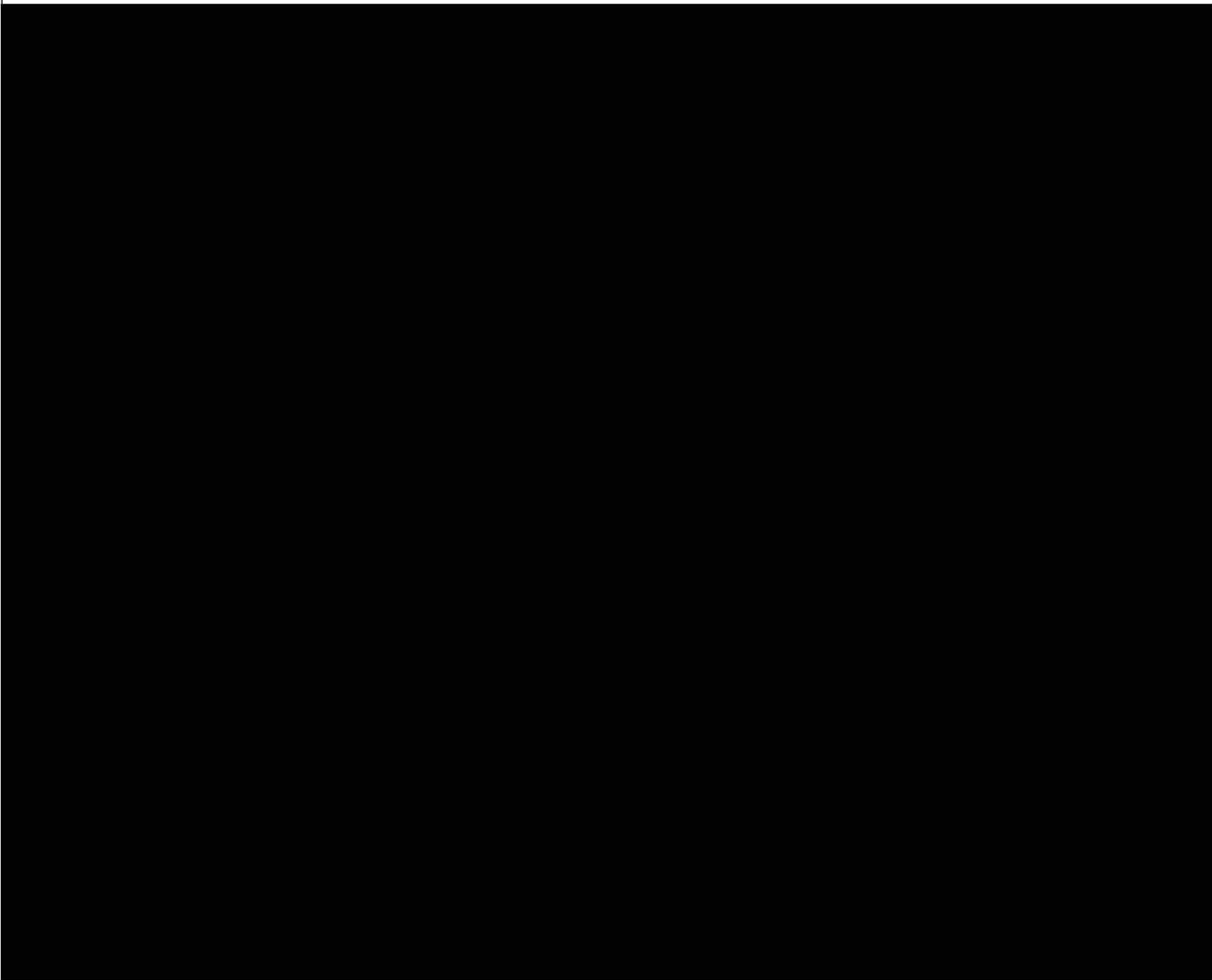
An ideal underground conversion not identified for this project. There are currently 6 existing poles within this project's footprint located on the road (+/- 1,000' of conductor). Poor road condition – 1.5 lanes narrow road & not enough space for subsurface or pad-mounted equipment.

Relocation of Facilities:

An ideal overhead line relocation not identified either. Existing route has limited tree exposure & conductor will be above tree line when taller poles are installed.

Additional Notes and attachment descriptions:

This location was field checked on 12/23/20. It is estimating's recommendation to harden in place. There were no foreseen challenges with the 1/0 reconductor. As for the 397 reconductor, there are some longer spans that may require inner set poles to shorten spans and decrease pole sizes. Parts of this job cross through vineyards, inner set poles for the most part should be able to be set outside existing vineyard. In some locations, may require the change out of PT solely owned clearance poles with Joint poles. Estimating is requesting the limits of the project to be expanded between 102256559 and 102256565 on the west side and 102256623 and 102256625 on the east side to have better guying locations and to lessen the overall exposure of this line.



From SAP ID 102256565 to SAP ID 102256559.

SAP 102256559 is a corner pole, which allows for an easy transition to the new conductor. There is an existing anchor & there is plenty of existing space for new anchor/guying.

These added spans will eliminate two spans of open wire secondary & clear three additional 07D jobs (Notif: 119232947, 116951678 [35095592 – E tag] & 102256562).

Second expansion recommendation – add 2 spans on the northeast end of the project:



By including two more spans, we can utilize existing anchor & setup a future +/- 17 span project (past FUCO 3798) to the south.

Approval(s):

Project Manager -	<u>██████████, Project Manager</u>	Date:
Estimating -	<u>██████████, Manager, Internal Estimating & Design</u>	Date: EDRS
Asset Strategy -	<u>██████████, Manager, Grid Design</u>	Date: EDRS