Klamath River Rural Broadband Initiative
CPUC Minor Project Refinement Form

Minor project refinements *are strictly limited to changes that will not trigger an additional permit requirement (except local government ministerial permits and associated requirements), do not substantially increase the severity of a previously identified significant impact based on criteria used in the IS/MND, create a new significant impact, are located within the geographic boundary of the study area of the IS/MND, and that don't conflict with any mitigation measure or applicable law or policy.*

Date Requested: March 10, 2026 **Report No.:** 2

Date Approved: April 15, 2026 **Approval Agency:** CPUC

Property Owner(s): Multiple, including federal, state, county, and private land managers/owners and road managers.

Location/Milepost: Along State Highways 96 and 101, along Humboldt County roads in Orleans, Orick, Fieldbrook, and McKinleyville, including Bald Hills Road, and within existing PG&E ROW from Orick to Fieldbrook.

Land Use/Vegetative Cover: all within either existing disturbance footprint of roads or of PG&E transmission line rights of way.

Sensitive Resources: No increase in impact to biological or cultural resources, some impacts eliminated.

Modification From:	☐ **Permit**	☒ **Plan/Procedure**	☐ **Specification**	☐ **Drawing**
	☐ **Mitigation Measure**	☐ **Other:**_____		

Introduction

This project refinement reflects an important change in the Klamath River Rural Broadband Initiative (KRRBI) made since the KRRBI IS/MND was approved in December 2022. This change substantially reduces the impact on the environment from KRRBI.

The owner's engineer, Trinity Valley Consulting Engineer, at the request of the Karuk Tribe, searched for and found an alternative subcontractor with expertise in fiber optic permitting and installation. The new company, Rapid Systems Engineering (RSE), recommended a change of underground installation method from primarily trenching, as approved in the IS/MND, to primarily horizontal directional drilling (HDD). The Karuk Tribe accepted this recommendation and revised engineering studies were completed. Revised drawings are available for the project outside the Yurok Reservation.

Original Project, Revised Project, and Justification for Change.

Installation Methods: Table 1, below, shows the installation methods proposed when submitted for review to the CPUC in 2024, and the currently proposed installation methods:

Table 1 Installation Types, Karuk KRRBI

Install Type	Miles, 2024	Miles, 2026
Trench *	33.4	0.2
Saw Cut **	6.0	0.1
HDD	2.4	41.5
Bridge Hang	0.2	0.2
OH Distribution	5.3	5.3
OH new	0.3	0.3
OH Transmission	25.4	25.4
Existing Fiber	0.5	0.5
Existing Conduit	0.0	0.0
Grand Total	**73.5**	**73.5**

* Includes gravel road bed, trench, trench above culvert, trench in shoulder

** Includes saw cut, paved road bed

HDD was limited in the original design to avoiding specific resources, mostly by avoiding road drainage and live creek-containing culverts by directionally drilling beneath the culverts. The revised design uses almost entirely HDD, as its cost has dropped and it is now faster and much less impact than trenching. Where cultural resources have been identified immediately adjacent to the road, HDD was requested by NPS in some areas to avoid possible impacts due to trenching. During discussion for sensitive resource abundance, the HDD line was moved to be under the road, drilling through previously disturbed soil, rather than in or near the ditch. In extremely sensitive areas, drill pits and vaults must either avoid the area altogether or be

located within the paved area (preferably paved shoulder where available). The revised drawings so show.

All overhead, bridge hang, and use of existing fiber in Orleans distances remain the same. The only change is replacing virtually all of the proposed trenching with HDD. RSE proposed this change to reduce impacts to roadside areas, reduce the amount of ground disturbance, and to more efficiently install the underground portion of the project while still avoiding road and other utility infrastructure.

All measures listed in Table 3-1, Mitigation Monitoring, Compliance, and Reporting Program for the Klamath River Rural Broadband Initiative, were reviewed to assure that their constraints were properly reflected in the changed engineering work. For example, areas that would have required saw-cutting and subsequent repaving to avoid wetlands in the area that was to be trenched are now being avoided by directionally drilling under the pavement in those areas, thus avoiding disturbance not only to the wetlands but also to the paved travel way.

Resources:

Biological ☐ No Resources Present ☒ Resources Present ☒ N/A, Change would not affect resources

Previous Biological Survey Report Reference:

https://ia.cpuc.ca.gov/environment/info/esa/klamath/pdfs/Amended_PEA_App_BIO_report_redline.pdf

This change will reduce the impact of KRRBI on biological resources, including wetland resources, by reducing ground disturbance and focusing disturbance beneath the existing road bed.

Agency Consultation?	☐ Y ☒ N	

Cultural ☐ No Resources Present ☒ Resources Present ☒ N/A, changes would not affect resources

Previous Cultural Survey Report Reference:

This report is confidential and can be obtained by a qualified archaeologist with a reason to review from the CPUC.
Direct APE was defined as 10' during construction, buffered to 30', surveyed by W. Rich & Associates and the Karuk Tribe (Rich & Watts-Tobin, 2021).
The information was used to prepare the cultural resources section of the amended Proponent's PEA.

https://ia.cpuc.ca.gov/environment/info/esa/klamath/pdfs/KRRBI_PEA_2020_REV_11MAY2020-reduced.pdf

This change will reduce the impact of KRRBI on cultural resources, including tribal cultural resources, by reducing ground disturbance and focusing disturbance beneath the existing road bed.

Agency Consultation?	☐ Y ☒ N	

Disturbance Acreage Changes: ☒ Yes ☐ No

Disturbance acres, estimated, for KRRBI

Segment	Miles		Est. Disturbance Acres			
	Original	Revised	Original		Revised	
			temp	perm	temp	perm
1	15.2	13.6	6.0	1.8	5.4	1.6
2	24.2	0.0	0.5	0.2	0.0	0.0
3	21.9	16.6	15.3	5.1	11.6	3.9
4	12.0	12.0	7.3	3.0	7.3	3.0
5	31.3	31.3	2.3	0.9	2.3	0.9
Project	**104.6**	**73.5**	**31.4**	**11.0**	**26.6**	**9.4**

CEQA Section	Applicable	(Y) Define potential impact or (N) briefly explain why CEQA/NEPA resource section isn't applicable. If (Y), describe original and new level of impact, and avoidance/minimization measures to be taken.
Geology, Soils, Seismicity, Paleontological Resources	☐ Y ☒ N	Reduced risk of impacts to geology, soils, and seismic resources due to reduced ground disturbance. Encroachment permits from roads managers reflect the revised installation method.
Agency Consultation?	☐ Y ☒ N	
Hazardous Materials and Waste	☐ Y ☒ N	Reduced quantity of hazardous materials or waste produced by proposed change due to reduced project distance.
Agency Consultation?	☒ Y ☐ N	AMP HAZ-1 requires a hazardous materials management plan (HMMP) to be prepared and submitted to CPUC at least 30 days prior to construction. The HMMP should include measures for prevention and contingency planning for inadvertent release of oils and other hazardous materials associated with all construction, including HDD.
Hydrology/ Water Quality	☐ Y ☒ N	Reduced risk of impacts to hydrology and water quality due to reduced ground disturbance.
Agency Consultation?	☒ Y ☒ N	APM WATER-1 requires that the construction contractor prepare and file a SWPPP and comply with its permit conditions. Frac-out/inadvertent release will be included in the SWPPP. SWPPP is the responsibility of the construction contractor and a WDID number, indicating approval from SWRCB, issued and provided to agencies prior to beginning construction.
Cultural Resources	☐ Y ☒ N	Reduced impact to cultural resources due to avoidance of sensitive resources in the uphill ditch with HDD install methods below the paved surface of the road.
Agency Consultation?	☒ Y ☐ N	See section on cultural resources, above.
Tribal Cultural Resources	☐ Y ☒ N	Reduced impact to tribal cultural resources due to reduced ground disturbance.
Agency Consultation?	☐ Y ☒ N	
Traffic and Circulation	☐ Y ☒ N	Reduced impact to traffic and circulation due to reduced construction time and lane closures.
Agency Consultation?	☐ Y ☒ N	
Air Quality	☐ Y ☒ N	Reduced impact on air quality due to reduction in size of overall project.
Agency Consultation?	☐ Y ☒ N	

CEQA Section	Applicable	(Y) Define potential impact or (N) briefly explain why CEQA/NEPA resource section isn't applicable. If (Y), describe original and new level of impact, and avoidance/minimization measures to be taken.
Noise and Vibration	☐ Y ☒ N	Reduced impact on noise and vibration due to change in installation method.
Agency Consultation?	☐ Y ☒ N	
Aesthetics/ Visual Resources	☐ Y ☒ N	No changes in impact to aesthetics and visual resources with the change in underground installation method.
Agency Consultation?	☐ Y ☒ N	
Vegetation and Wildlife	☐ Y ☒ N	Reduced risk of impacts to vegetation and wildlife due to reduced ground disturbance.
Agency Consultation?	☐ Y ☒ N	
Wildfire	☐ Y ☒ N	Reduced impact on the potential for wildfire, or for wildfire to harm project, due to reduction in size of overall project.
Agency Consultation?	☐ Y ☒ N	

Approvals	Date	Name (print)	Signature	
Karuk Tribe Environmental Project Manager		Penny Eckert and Trevor Ward		☒ Reviewed
CPUC Project Manager		Lisa Cooke		☐ Approved ☒ Approved with conditions (see below) ☐ Denied

For CPUC Compliance Manager Use Only		
☒ **Refinement Approved**	☐ **Refinement Denied**	☐ **Beyond Authority**

Conditions of Approval or Reason for Denial:

1. As a condition of approval, the Applicant will prepare an inadvertent release recovery contingency plan (frac-out contingency plan) to identify measures to prevent, recover, and appropriately contain inadvertent releases of drilling fluid (mud) materials during HDD construction activities. The plan shall describe appropriate disposal methods and identify locations where such waste may be legally discharged and comply with all regulatory permit requirements. The SWPPP (required per APM WET-1) will include the frac-out contingency plan. In addition, the Hazardous Materials Management Plan (HMMP) shall prescribe hazardous

material handling procedures to reduce the potential for a hazardous materials spill during construction, or exposure of the workers or public to hazardous materials, including petroleum products used by construction equipment. The Plan shall also include appropriate response actions in the event that hazardous materials are released or encountered during excavation activities. The Plan shall be submitted to the CPUC for review and approval at least 30 days prior to the commencement of construction activities. (APM HAZ-1).

2. Provide any relevant updates related to agency communication or notice of intent for the Construction General Stormwater Permit, encroachment permit/ conditions, or other agency input related to protection of water, biological or cultural resources, as applicable.

Prepared by: M. Hensel/L. Cooke **Date:** April 15, 2026