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STAFF REPORT: REGULAR CALENDAR

Application No.: 9-16-0379

Applicant: Pacific Gas and Electric Company

Location: Four locations between the cities of Loleta and Eureka, County of Humboldt.

Project Description: Upgrades to two natural gas pipelines at four locations to facilitate future in-line inspections.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

Pacific Gas and Electric Company (PG&E) proposes to upgrade natural gas pipelines 177A and 189 at four locations located between the cities of Loleta and Eureka in Humboldt County (see Exhibit 1). The purpose of the upgrades is to facilitate in-line inspections of the lines with a smart pig that will allow PG&E to detect defects in the pipeline wall, such as corrosion, dents, metal loss and cracks. The entire project will take approximately 2 months to complete.

The work will take place at several locations along the two pipelines, 4 of which are within the coastal zone, including within the Commission's retained jurisdiction and the certified Local Coastal Program jurisdiction of the County of Humboldt and the City of Arcata. PG&E, the

County, and the City have agreed to seek consolidated permit review of this project, pursuant to Coastal Act Section 30601.3.

The key Coastal Act issues raised by this project are its expected or potential impacts to biological resources, including wetlands, sensitive species, coastal water quality and archeological resources. All of the work sites are in or near coastal wetlands. The project's impacts to wetlands are unavoidable, due to the need for PG&E to perform the upgrades at specific locations along the pipelines that are within or near wetlands. PG&E has incorporated a number of measures into its project description that will avoid and minimize many of the potential adverse effects; however, additional measures are needed to ensure Coastal Act consistency. These include [Special Condition 1](#), which requires PG&E to submit, for Executive Director review and approval, a modified Avoidance and Minimization Measures plan that requires PG&E to conduct an additional sensitive vegetation survey if construction begins on or after April 1, 2017. [Special Condition 2](#) requires PG&E to submit an updated wetland restoration plan that provides pre- and post-disturbance surveys and monitoring and ensures that any temporary or long-term adverse wetland effects are mitigated. These conditions are necessary to bring the project into conformance with Sections 30231, 30233, 30240, and 30244 of the Coastal Act.

With the proposed Special Conditions, staff recommends the Commission **approve** coastal development permit application 9-16-0379.

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EXHIBITS

- Exhibit 1 – Project Vicinity
- Exhibit 2a – Project Location I-104I 5B
- Exhibit 2b – Project Location I-104K 6A
- Exhibit 2c – Project Location I-104K 6B
- Exhibit 2d – Project Location I-104B
- Exhibit 3 – PG&E’s Proposed Avoidance and Minimization Measures
- Exhibit 4 – Site Restoration Plan for Temporarily Disturbed Areas
- Exhibit 5 – Cultural Review for Proposed Project

I. MOTION AND RESOLUTION

Motion

*I move that the Commission **approve** Coastal Development Permit 9-16-0379 subject to the conditions set forth in the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in conditional approval of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution

The Commission hereby approves Coastal Development Permit 9-16-0379 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Modified Avoidance and Mitigation Measures.** PRIOR TO ISSUANCE OF THE CDP, PG&E shall submit, for Executive Director review and approval, a revised Avoidance and Mitigation Measures (AMMs) document that is consistent with its AMMs dated June 2016, but with the following revision. If PG&E begins construction on or after April 1, 2017, it shall conduct a botanical inventory of all work sites, similar to the botanical inventory conducted in June of 2016, consistent with protocols of the November 24, 2009 California Department of Fish and Game *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*, and as required in AMM #37.

PG&E shall implement the AMMs as approved by the Executive Director.

2. **Avoiding, Minimizing, and Mitigating Wetland Impacts.** PRIOR TO ISSUANCE OF THE CDP, PG&E shall submit, for Executive Director review and approval, a revised *Site Restoration Plan for Temporarily Disturbed Areas in the Coastal Zone* that is consistent with the submitted document dated June 2016, but with the following modifications:
 - a. The modified Plan shall describe the existing condition of wetland areas at all work sites that will be affected by project activities. The description shall include absolute vegetation cover, percent cover of native and non-native plant species, species composition, and the location of any Special Status vegetation that may be identified if a vegetation survey is conducted pursuant to Special Condition 1 of this permit.
 - b. The modified plan shall identify adjacent areas that will be used as reference sites, including data on absolute vegetation cover, percent cover of native and non-native plant species and species composition.
 - c. The success criteria shall be based on a comparison of data between the pre-disturbance work area and the nearby reference site. Restored areas will be considered successful if the site re-establishes the same relative cover (total vegetation cover and cover of invasive species) to the reference site as was present at the site pre-disturbance.
 - d. If the success criteria described in the Plan are not met after the final site visit, or if there are long-term effects that remain after the final site visit, PG&E shall submit a supplemental wetland restoration plan within 90 days for Executive Director review and approval. The supplemental plan shall identify proposed measures to ensure that all wetland areas with remaining temporary impacts (i.e., reduced vegetative cover) are revegetated with appropriate native plants at a ratio of at least 1:1 and that all wetland areas with long-term impacts are mitigated at a ratio of at least 4:1. This plan shall also describe the monitoring to be conducted to ensure mitigation success is achieved.

PG&E shall implement the Plan as approved by the Executive Director.

IV. FINDINGS AND DECLARATION

A. PROJECT DESCRIPTION

Pacific Gas and Electric Company (PG&E) proposes to upgrade natural gas pipelines 177A and 189 at four locations located between the cities of Loleta and Eureka in Humboldt County (see Exhibit 1). The purpose of the upgrades is to facilitate in-line inspections of the lines with a smart pig that will allow PG&E to detect defects in the pipeline wall, such as corrosion, dents, metal loss and cracks.

The upgrades will take place at the following locations (see Exhibits 2a, 2b, 2c and 2d)

- **I-104I Location 5B:** removal of pipeline drip feature on Line 177A
- **I-104K Location 6A:** installation of a mainline valve on Line 189
- **I-104K Location 6B:** removal of a pressure control fitting on Line 189
- **I-104B:** installation of an in-line inspection tool receiver at the termination of line 189 at the Humboldt Bay Generating Station (HBGS)

The entire project is expected to take approximately two months and will require a total of 20-30 workers. In addition to laydown areas at each location (see below for more details), PG&E will also use Fields Landing, a 200 ft by 200 ft vacant industrial property, for temporary construction laydown. Fields Landing is located approximately one-half mile south of the HBPP and has been approved previously for use by PG&E as a laydown area. This laydown area will be used for equipment and material storage, pipe welding and coating, and construction worker parking.

Proposed activities at each location are described in further detail below:

I-104I Location 5B

At this location, PG&E proposes to remove an existing drip feature from Line 177A, a 12-inch diameter gas transmission line that extends from Butte County to Humboldt County. The drip feature is no longer needed and impedes in-line inspection tools from passing through the pipeline. PG&E will establish a work area of approximately 50 feet by 175 feet (see Exhibit 2a). Within this area, PG&E will excavate two bell holes, measuring approximately 4 feet by 51 feet and 10 feet by 16 feet, over the existing pipeline. The top 6-12 inches of topsoil will be stockpiled separately. Once the excavation is complete, a bypass line will be installed around the drip feature. Next, the drip feature will be cut from the pipe and a new length of straight pipe will be welded in its place. Due to high groundwater levels, PG&E will need to dewater the excavation with a vacuum truck. The water will be transferred to water storage tanks for settlement and filtration and then hauled offsite to and disposed of at a waste water treatment plant. Once the drip feature is removed, the excavation will be backfilled. The top 6-12 inches of topsoil will be replaced and the area restored to as near to pre-construction condition as feasible.

An existing 14 foot farm road will be used to access the site. In areas of the access road that located within a seasonal wetland or may have wet soils, PG&E will place geotextile or timber mats on the surface to facilitate access and minimize disturbance to the underlying soils. This project component is expected to take approximately 36 days. PG&E will require the use of the

following equipment to complete the project: a backhoe, an excavator, 4 crew trucks, 2 refuel trucks, a sand blast truck, 2 dump trucks, a vacuum truck, 2 compressors, 2 welding trucks, and a generator.

I-104K Location 6A

This project component involves the installation of a mainline valve to control the flow of gas in Line 189, a 10-inch diameter gas transmission line that extends from Humboldt Hill to the HBGS. All work at this location will be conducted within the footprint of Hill Road east of Purdue Drive (see Exhibit 2b). To install the valve, PG&E will excavate an approximately 14 feet wide by 25 feet long by 6 feet deep bell hole within the Hill Road, about 700 feet east of Purdue Road. The bell hole will be shored up with a driven interlocking sheet pile system or timber lagging. Within the bell hole, PG&E will first construct a below-ground concrete vault or install a pre-cast vault, and then install the valve on the pipeline within the vault. Once the work is completed, the excavation will be backfilled and the road area repaired.

To facilitate dewatering of the excavation, PG&E proposes to install a 2 to 4 inch lay-flat dewatering pipe from the bell hole to the north shoulder of Hill Road, and extending approximately 800 feet along the north shoulder to a Humboldt County Sanitation District (HCSD) facility located at the corner of Hill Road and Purdue Road (see Exhibit ??). For the 18 foot portion of the pipeline within the road, PG&E will excavate a narrow trench, install the dewatering pipe and cover the excavation with steel plating. Along Hill Road, the dewatering pipe will be placed on the ground surface of the north shoulder and held in place with fiber rolls or other appropriate methods. The dewatering pipe will connect to up to six frac-tanks in a 6,100 square foot Water Management Area adjacent to the HCSD facility to store and filter the dewatering fluid prior to disposal. The filtered water will either be discharged to the sewer connection at the adjacent HCSD facility, or, in the event of capacity restrictions, trucked offsite to the City of Eureka's Elk River Wastewater Treatment Plant (ERWWTP).

During construction hours (i.e., 7:00am – 5:30pm, Monday through Saturday), Hill Road will be closed to through traffic. An approximately one-mile detour will be provided around the construction site. Every evening and on Sundays, the excavation will be plated and Hill Road reopened to traffic. This project component is expected to take approximately 22 days to complete and will require the use of a backhoe, an excavator, 2 crew trucks, 2 refuel trucks, a sand blast truck, 2 dump trucks, 2 compressors, 2 welding trucks, and a generator.

I-104K Location 6B

At this location, PG&E proposes to remove a pressure control fitting (PCF) on Line 189 that could impede passage of an in-line inspection tool. To remove the PCF, PG&E will first establish a work area of approximately 25 feet by 40 feet (see Exhibit 2c). Within the work area, PG&E will then excavate a bell hole approximately 8 feet wide by 16 feet long by 6 feet deep using a tracked excavator or a rubber-tired backhoe. The bell hole will be shored up and then the PCF will be cut out of the pipeline. Once the PCF is removed, PG&E will install a 4 to 8 foot segment of pipeline in its place, and then backfill the excavation with the excavated spoils. Vacuum trucks will be used to dewater the site and transfer the collected groundwater into frac tanks for settling and filtration. The filtered water will either be discharged to the HBPP sewer connection, or, in the event of capacity restrictions, trucked offsite to the ERWWTP.

The site is located approximately 30 feet east of the HBGS fence line and will be accessed by a 50 foot long, 12 foot wide temporary access road that will be constructed from the HBGS to the site. The road will be constructed by first removing six landscaped trees, then placing geotextile fabric over the remaining vegetation and then covering the fabric with 8-inch gravel. Soil may be added to the entrance of the road to assist construction vehicles navigate the elevation change from the HBGS to the access road. After the upgrade is complete, the gravel and fabric will be removed and the site restored to initial conditions to the extent feasible, including replacing the removed trees. This project component is expected to take approximately 22 days to complete and will require the use of a backhoe, an excavator, 2 crew trucks, 2 refuel trucks, a sand blast truck, a dump truck, a crane, a vacuum truck, a compressor, 2 welding trucks, and a generator.

I-104B

This upgrade consists of the installation of an in-line receiver at the termination of Line 189, located within the HBGS fenceline (see Exhibit 2d). The receiver will be used to collect the in-line inspection tool. To install the receiver, PG&E will first relocate an existing gas meter to another location within the HBGS fenceline. Next, PG&E will install approximately 25 feet of below-ground 10-inch pipeline at a depth of 8-feet. The pipeline will then transition aboveground and continue for approximately 31 feet. The last 19 feet of the receiver pipeline will consist of a 16 inch diameter pipe. The in-line inspection tool receiver will be located within the aboveground segment of pipe. PG&E will install the below-ground pipeline through conventional trenching, by excavating a trench approximately 25 feet long, 8 feet wide and 8 feet deep. This project component is expected to take approximately 38 days to complete and will require the use of a backhoe, an excavator, 4 crew trucks, 2 refuel trucks, a sand blast truck, 2 dump trucks, a vacuum truck, 2 compressors, 2 welding trucks, and a generator.

B. COASTAL COMMISSION JURISDICTION AND STANDARD OF REVIEW

Consolidated Permit Review: Some of the work locations are entirely outside of the coastal zone; however, portions of the proposed project are within the Coastal Commission's retained jurisdiction or within the certified LCP jurisdictions of the County of Humboldt and the City of Arcata. Two of the work locations (I-104K location 6B and I-104B) are within the Commission's jurisdiction, and two of the work locations (I-104K location 6A and I-104I location 5B) are within the County's LCP jurisdiction. Approximately 11 work locations are outside the Coastal Zone.

Section 30601.3 of the Coastal Act provides that when a project requires a coastal development permit from one or more local governments with certified Local Coastal Programs and from the Coastal Commission, a single, consolidated coastal development permit for the entire project may be processed by the Commission if the Commission (through its executive director), applicant and local government agree to that process.¹ That section provides that the Coastal Act

¹ Coastal Act Section 30601.3 states:

“(a) Notwithstanding Section 30519, the commission may process and act upon a consolidated coastal development permit application if both of the following criteria are satisfied:

Chapter 3 policies serve as the legal standard of review, with certified LCPs serving as guidance. PG&E requested a consolidated permit process on February 25, 2016, and the County provided its concurrence on March 22, 2016.

C. OTHER AGENCY APPROVALS

California Energy Commission

PG&E has applied to the CEC for approval of the relocation of the HBGS gas meter to accommodate installation of the receiver in Line 189 at location I-104B.

D. PROTECTION OF COASTAL WETLANDS AND SENSITIVE HABITAT

Coastal Act Section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Coastal Act Section 30233(a) states, in relevant part:

The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

...

(1) A proposed project requires a coastal development permit from both a local government with a certified local coastal program and the commission.

(2) The applicant, the appropriate local government, and the commission, which may agree through its executive director, consent to consolidate the permit action, provided that public participation is not substantially impaired by that review consolidation.

(b) The standard of review for a consolidated coastal development permit application submitted pursuant to subdivision (a) shall follow Chapter 3 (commencing with Section 30200), with the appropriate local coastal program used as guidance.

(c) The application fee for a consolidated coastal development permit shall be determined by reference to the commission's permit fee schedule.

(d) To implement this section, the commission may adopt guidelines, in the same manner as interpretive guidelines adopted pursuant to paragraph (3) of subdivision (a) of Section 30620."

(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

Section 30240 of the Coastal Act states:

a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

All four of the project work locations are located directly in or immediately adjacent to wetlands or habitat that may contain listed sensitive plant or animal species. Project activities therefore have the potential to result in direct and/or indirect impacts to wetlands and protected species and their habitats.

Wetlands and Sensitive Species

Of the 4 work locations within the coastal zone, 2 involve direct impacts to wetlands and 2 have the potential for indirect impacts to wetlands. At location I-104I location 5B, PG&E proposes to remove a drip feature from an existing pipeline located in a wetland area (see Exhibit 2a). At location I-104K location 6B, PG&E proposes to remove a pressure control fitting from an existing pipeline that is also located almost entirely in a wetland (see Exhibit 2c). Proposed work at both these sites will result in removal of wetland vegetation and soils, crushing of vegetation and possible soil compaction, for a total impact area of 0.289 acres (12,589 square feet). Once work is completed at each site, PG&E will remove all construction materials, fill in excavations with stockpiled soils, including replacing the original 6-12 inches of topsoil from wetland areas, and restore the area as close to its pre-construction condition as feasible. Table 1 summarizes the extent of excavation and areas of ground disturbance within Commission-jurisdictional wetlands, and the total temporary wetland impacts expected from project activities within the coastal zone.

In addition, PG&E's proposed work at locations I-104K location 6A and I-104B will occur directly adjacent to wetland areas (see Exhibits 2b and 2d). Potential impacts to wetlands at these sites include water quality impacts from project-related runoff, disturbance due to dust and noise from construction equipment, staging of equipment and the presence of construction personnel.

PG&E has also identified the potential for at least two listed sensitive animal species at or near some of the work sites, including the threatened Northern red-legged frog (*Rana aurora*) and the western pond turtle (*Clemmys marmorata*). Some sites have nearby potential nesting habitat for sensitive bird species. In addition, some of the sites could provide foraging habitat for Bald eagles (*Haliaeetus leucocephalus*) and potential roosting sites for Townsend's big-eared bat (*Corynorhinus townsendii*) occur near site I-104K location 6A. A botanical survey conducted in

June of 2016 did not find any special-status plant taxa. However, the proposed work sites do provide potential habitat for several sensitive species, including Western lily (*Lilium occidentale*), Bristlestalked sedge (*Carex leptalea*), Lyngbye's sedge (*Carex lyngbyei*), Marsh pea (*Lathyrus palustris*), Coast sidalcea (*Sidalcea oregana* ssp. *eximia*), Howell's montia (*Montia howelli*) and Pacific gillia (*Gillia capitata* ssp. *pacifica*).

Table 1 – Extent of Direct Adverse Effects on Wetlands

Work Location	Activity	Area of Wetland Disturbance (in acres)	Description of Impact
I-104I location 5B	Bell Hole Excavation	0.013	Removal of wetland vegetation and soils
	Establishment of work area	0.198	Crushing of vegetation and possible soil compaction
	Access Road	0.047	Crushing of vegetation and possible soil compaction
	Total	0.258	
I-104K location 6B	Bell Hole Excavation	0.003	Removal of wetland vegetation and soils
	Establishment of work area	0.018	Crushing of vegetation and possible soil compaction
	Access Road	0.01	Crushing of vegetation and possible soil compaction
	Total	0.031	
Total Impacts		0.289 acres	

Conformity to Sections 30233(a) and 30240(b)

Regarding wetlands, Coastal Act Section 30233(a) requires a project that includes fill of wetlands to meet three tests. The first test requires that the proposed activity must fit into one of seven categories of uses enumerated in Coastal Act Section 30233(a). The second test requires that there be no feasible less environmentally damaging alternative. The third and last test mandates that feasible mitigation measures be provided to minimize the project's adverse environmental effects. Regarding sensitive habitat, as noted above, some of the work locations are adjacent to areas of sensitive habitat, and Section 30240(b) requires that activities be designed to prevent impacts that would significantly degrade those areas and that they allow continuance of those habitat areas. The three tests to determine conformity to Section 30233(a) are applied below.

- 1) Allowable Use Test:** The Coastal Act allows fill and dredging in wetlands for any of seven allowable use categories. PG&E is conducting the proposed work to ensure that its existing pipelines can be inspected using modern pigging technology. PG&E is pursuing this work for public safety purposes, a category of activities that fall within Coastal Act Section 30233(a)(4), which allows for "incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and

outfall lines.” The Commission therefore finds that the proposed project meets the allowable use test of Section 30233(a).

- 2) **Alternatives Test:** Pursuant to Section 30233(a), the Commission must additionally find that there are no feasible less environmentally damaging alternatives to the proposed fill or dredging in wetlands. The purpose of the proposed work is to facilitate future in-line inspections of the gas line to identify and repair areas of pipeline that are vulnerable to leaking. Not performing the proposed work, or the “no action” alternative would mean that PG&E would continue to use inferior external inspection methodologies, thus increasing the risk of a pipe breach. Even a small leak of natural gas could have significant adverse impacts on the surrounding wetlands and ESHA. Therefore, avoiding the work, or the “no project” alternative, is not an environmentally preferable option. In addition, because the proposed work involves improvement of existing infrastructure, there are no alternative locations for the project that could entirely avoid wetlands or ESHA. The Commission therefore finds that there are no feasible, less damaging alternatives to the proposed dredging and filling of wetlands.
- 3) **Mitigation Test:** The final test of Coastal Act Section 30233(a) provides that filling and dredging of wetlands may be permitted if feasible mitigation has been provided to minimize any adverse environmental effects. A number of mitigation measures are also necessary to ensure conformity with the protections required by Coastal Act Sections 30231 and 30240(b).

Avoidance and Mitigation Measures: Mitigation generally consists of a sequence of measures that first allow *avoidance* of impacts, then *minimization* of impacts, and finally, measures that *compensate* for any remaining impacts. As noted above, PG&E cannot completely avoid affecting these wetland locations. To address the expected impacts, PG&E has proposed a series of Avoidance and Minimization Measures (“AMMs” – see Exhibit 3) that will mitigate for many of the potential adverse effects to wetlands and will additionally protect nearby habitat of sensitive species. Most of the AMMs apply to all project activities and a few apply to specific project work locations, based on their proximity to certain types of habitat and specific proposed activities. The proposed AMMs address a variety of issue areas, including requiring biological monitoring, employee environmental awareness training, conducting pre-construction surveys for sensitive flora and fauna species and nesting birds, implementing erosion control measures, and others.

For example, to avoid impacts to sensitive species, PG&E will conduct pre-construction surveys for nesting birds and special-status fauna and will provide a biological monitor, approved by the Executive Director, to observe all activities involving vegetation clearing and ground disturbance. If active nests are discovered, PG&E will identify expected project-generated noise levels and implement mitigation measures that will reduce noise to a level that is protective of **nesting birds**. **In addition**, PG&E will install exclusion fencing to separate needed work areas from nearby wetlands that can be avoided during project activities. It will also lay down geotextile mats or similar buffering materials to reduce the potential impacts on wetland vegetation and soils. In areas where it must excavate within wetlands, PG&E will stockpile the topsoil to backfill those areas when the work is complete.

To further ensure potential impacts are mitigated as required by Section 30233(a), [Special Condition 1](#) requires PG&E to modify its proposed AMMs to include an additional survey of sensitive vegetation if needed. PG&E conducted a sensitive plant survey in June 2016 using accepted California Department of Fish and Wildlife protocols to survey sensitive vegetation. [Special Condition 1](#) requires PG&E to re-survey the work areas if construction begins on or after April 1, 2017. PG&E will be required to submit results of the survey, including measures to modify its work locations as feasible to avoid or minimize effects on any identified species to the Executive Director for review and approval.

Restoration of Wetland Areas: Along with measures included in the AMMs, PG&E has proposed additional measures to restore wetland areas adversely affected by project activities (see Exhibit 4 – Site Restoration Plan for Temporarily Disturbed Areas in the Coastal Zone). Key components of the restoration measures include stabilizing and reseeded areas degraded due to project activities after tests are completed at the various sites, and conducting monitoring to determine whether the affected sites recover within no less than a year after being disturbed. PG&E also proposes to establish reference sites and evaluate recovery of the disturbed sites through comparison of vegetation cover and cover of high-rated invasive plants. PG&E will submit a report to the Executive Director describing results of pre- and post-construction biological surveys, an evaluation of whether impacts appear to be more than temporary and a determination as to whether success criteria have been met. If success criteria are not met, or project-related impacts appear to be more than temporary, PG&E will submit a supplemental restoration plan to the Executive Director for review and approval describing remedial actions and additional monitoring

To ensure conformity to Section 30233(a), [Special Condition 2](#) requires PG&E to submit a modified restoration plan that includes additional feasible mitigation measures. The modified plan shall include pre-construction data on percent cover of vegetation and species composition in the work areas and nearby identified reference sites, success criteria based on the relative cover of the pre-disturbance work site as compared to the reference site, and provisions to provide 1:1 mitigation for temporary impacts and 4:1 mitigation for long-term effects.

With the inclusion of [Special Conditions 1](#) and [2](#), the Commission finds that the third test of Coastal Act Section 30233(a), as well as the requirements of Section 30240(b), have been met.

E. PROTECTION OF COASTAL WATERS AND SPILL PREVENTION AND RESPONSE

Coastal Act Section 30230 states:

Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act Section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30232 of the Coastal Act states:

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Some of the project work areas are close to open coastal waters and wetland areas, including two locations near the shoreline of Humboldt Bay. Excavation, the use of fuel by project vehicles, and other project activities could lead to water quality degradation or spills into coastal waters unless mitigation measures are included to prevent these occurrences.

Several of PG&E's proposed AMMs described in the previous section will reduce the potential for adverse water quality effects and spills. For example, PG&E will use erosion control measures to reduce the potential for turbid runoff into coastal waters. PG&E will fuel vehicles and equipment at least 100 feet from wetlands, drainage features and coastal waters unless done within a constructed secondary containment area. PG&E will also ensure that spill kits are available on-site and crews inspect equipment for leaks and make necessary repairs immediately. PG&E will also be subject to conditions of the state's Construction General Permit for Stormwater Discharges and an accompanying Stormwater Pollution Prevention Plan (SWPPP). PG&E's proposed SWPPP submitted to the Commission as part of the project description, includes an analysis of potential pollutants and erosion risk and identifies several best management practices that PG&E will implement to reduce the risk of stormwater-related pollution. For example, PG&E will install and maintain effective soil cover for disturbed areas, sediment controls such as silt fencing and fiber rolls to minimize run-off, measures to minimize wind erosion, limitations on on-site fueling, and final stabilization measures (i.e., effective revegetation) throughout the project. The SWPP also includes a hazardous substance management plan that identifies handling, storage, and disposal procedures related to any hazardous waste that may be generated or identified during project activities. Further, PG&E will maintain spill cleanup supplies onsite and ensure all personnel are appropriately trained in spill response. PG&E will also employ a Qualified SWPP Practitioner (QSP) to ensure that all BMPs are properly implemented and maintained throughout the project.

PG&E also submitted a Spill Prevention, Control, and Response Plan that describes all measures PG&E will implement to prevent spills of fuel from vehicles and to respond to spills should they

occur. The Plan also identifies the worst-case spill scenario and volume and demonstrates that PG&E has appropriate equipment, personnel and protocols in place to contain and cleanup the spill quickly and effectively, including notification procedures to local spill responders.

With these measures in place, the Commission finds that the project would maintain the biological productivity and the quality of coastal waters in the project vicinity and would be consistent with the above-referenced Coastal Act Sections 30230, 30231 and 30232.

F. PUBLIC ACCESS AND RECREATION

Coastal Act Section 30210 states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Most project activities would occur at some distance from the shoreline; however, proposed activities at site 104K location 6A would take place on a public road right-of-way that provides indirect access to the shoreline. The work would require the closure of Hill Road from 7:00am – 5:30pm, Monday through Saturday for approximately 2 months. Hill Road does not provide direct access to the shoreline, but may be used by the public to connect to King Salmon Road, which does provide direct access to a public beach, picnic area, recreational areas, and a boat marina. To address traffic concerns related to closure of Hill Road, PG&E will provide an approximately one-mile detour route around the project site. The detour, which will require approval by Humboldt County, will allow the public to continue to access King Salmon Road and local coastal areas. The provision of a detour around the construction site in conjunction with the short project duration ensures that the public's right to access the beach and other recreational coastal areas will not be impeded.

The Commission therefore finds that the proposed project would not result in adverse impacts to public access and is consistent with Section 30210 of the Coastal Act.

G. CULTURAL AND ARCHEOLOGICAL RESOURCES

Coastal Act Section 30244 states:

Where development would adversely impact archaeological or paleontological resources by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The four project sites, located near the resource-rich shoreline of Humboldt Bay, have the potential to contain cultural and archeological resources. To assess the potential for project-related impacts to known and unknown cultural resources, PG&E conducted a cultural review of the project area (see Exhibit 5). This analysis included record searches that identified seven previously recorded cultural resources within one-quarter mile of the project areas, but not within the Area of Potential Effect (APE). Buried sensitivity studies previously conducted by PG&E indicate a moderate to high potential for cultural artifacts within the APE in the 1.5-4 foot depth

range. PG&E also conducted a sacred land file search with the Native American Heritage Commission and reached out to four Native American contacts for information on known cultural resources. No known cultural resources in the APE were identified. Finally, a pedestrian survey was conducted at two of the sites to fill gaps in prior survey coverage. This survey identified one new cultural resource, Hill Road, a historic paved road.

Based on the findings of the cultural review, PG&E has proposed the following protocols for each project location:

- I-104I-5B: This area is clear of cultural resources and requires no monitoring
- I-104K-6A: All work will occur within the existing roadbed that has been significantly elevated above surrounding wetlands. Thus the potential for encountering buried cultural resources is very low. Project activities will not affect the historical setting or integrity of the roadway. No additional monitoring is needed.
- I-104K-6B: Previous studies have indicated the potential for sensitive cultural resources at this site. Prior to work starting at this location, all workers shall receive training on environmental and cultural conditions and avoidance and minimization measures that must be implemented. Additionally, a cultural monitor shall be present for all ground-disturbing activities.
- I-104B: Previous studies have identified this site as possibly possessing a cultural A horizon at 1.5-4 feet below grade. Prior to work starting at this location, all workers shall receive training on environmental and cultural conditions and avoidance and minimization measures that must be implemented. Additionally, a cultural monitor shall be present for all ground-disturbing activities in native soil.

In the event that PG&E encounters an unanticipated discovery during project-related activities at any of the sites, it will halt all work in the vicinity of the resource and immediately notify the cultural resource specialist. If tribal resources are discovered, tribal representatives will also be notified immediately. The cultural resource specialist and tribal representatives, if applicable, will assess the discovery and determine the appropriate course of action. In addition, the two sites that require additional monitoring are located within or immediately adjacent to the HBGS. PG&E has agreed to follow the protocols described in the Revised Archeological Resources Protection Plan, approved by the Executive Director on July 15, 2016 under Special Condition 13 of CDP 9-15-0531. This revised plan outlines specific protocols to be followed in the event of an unexpected cultural resource discovery, as well as a requirement to submit a final cultural monitoring report to the Executive Director.

With these measures in place, the Commission finds that the proposed project would protect cultural and archeological resources and be consistent with Coastal Act Section 30244.

H. HAZARDS

Coastal Act Section 30253(2) states, in part:

New development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

The only component of the proposed project that is new development is site I-104B, where PG&E proposes to install a new receiver for gas line I-104 within the HBGS fenceline. This area is located close to the shoreline of Humboldt Bay directly opposite the mouth of the Bay. The HBGS site is subject to several geologic hazards, including seismic activity, coastal erosion, tsunamis, and tsunami runup and sea level rise. The most significant potential hazards that apply specifically to the proposed receiver site are seismic shaking, tsunami waves and tsunami runup. The receiver site is located approximately 13 feet above sea level which places it above anticipated storm surge levels. Sea level rise at this site could also be a concern. PG&E provided Humboldt Bay shoreline water level modeling results that show the receiver site partially inundated with 17.2 inches of sea level rise, a level that could be attained between 2030 and 2050 if the high range sea level rise projections for Humboldt Bay are realized.

Although the site could be subject to geologic hazards and sea level rise, impacts sustained from damage to this site alone are not expected to be significant. The receiver site is a small portion of a much larger site that is subject to the same hazards. In the event of a major earthquake or tsunami, the entire HBGS site and the adjacent Independent Spent Fuel Storage Installation (ISFSI) would likely be affected. The primary concern would be impacts to critical infrastructure, including gas pipelines such as line I-104, and any impacts to the receiver site, which is not considered critical infrastructure, would be comparatively insignificant. Further, potential impacts to critical infrastructure at the HBGS and the ISFSI from hazards and sea level rise are likely to drive any interest by PG&E in installing protective devices on the adjacent shoreline, not impacts to the receiver site. Thus, the Commission finds that risks from geologic hazards will be minor, and that exposure to these hazards at the receiver site alone, will not lead to the construction of a shoreline protective device. The Commission therefore concludes that the proposed project is consistent with Coastal Act Section 30253.

I. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

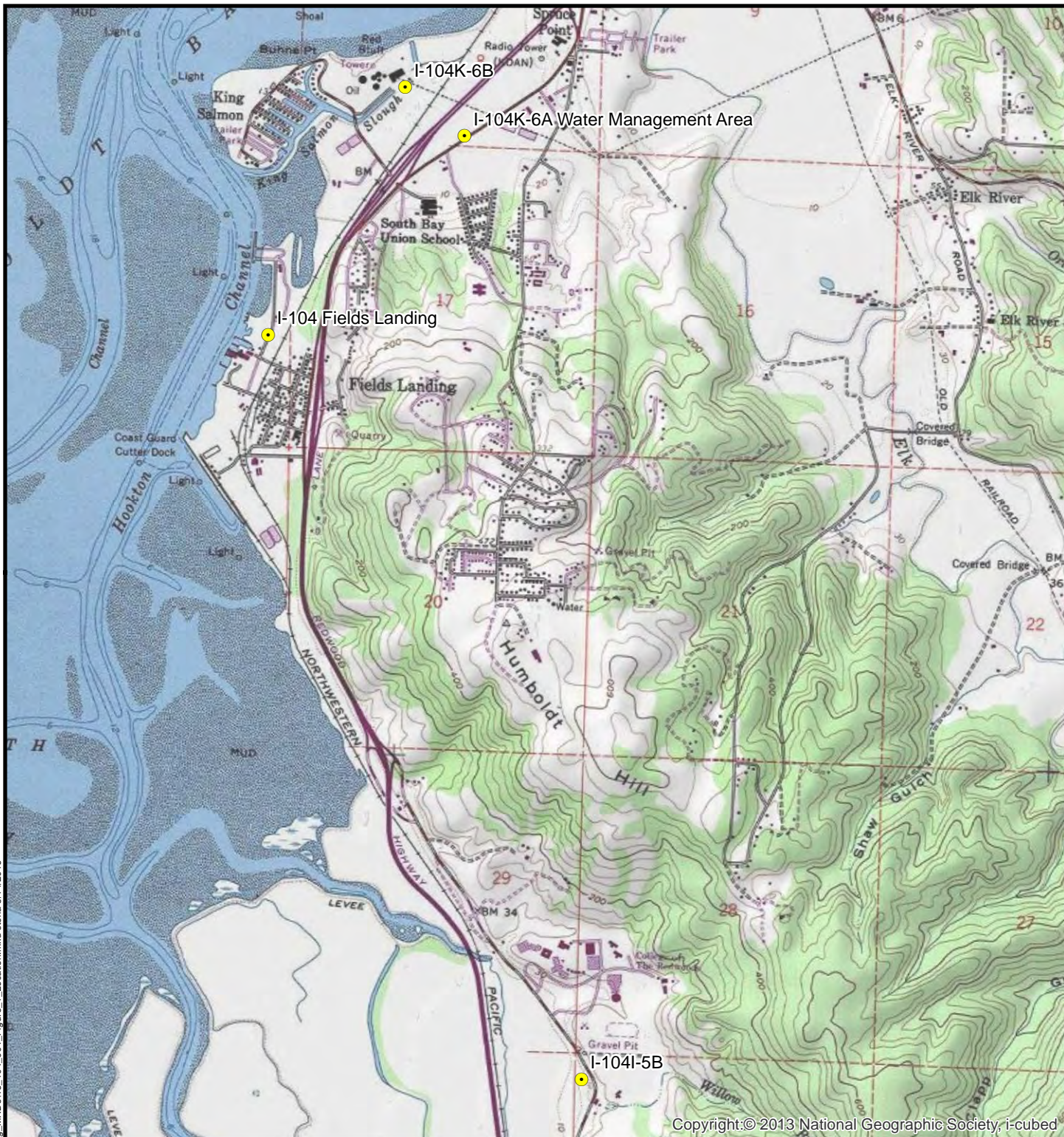
The proposed development has been conditioned in order to be found consistent with the Coastal Act's Chapter 3 policies. Mitigation measures, including conditions addressing biological resources and fill of wetlands will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would

substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A: SUBSTANTIVE FILE DOCUMENTS

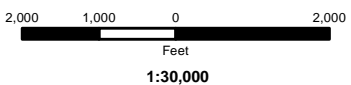
Coastal Development Permit Application Materials, including:

- Biological Resources Assessment Memorandum; dated April 15, 2016.
- PG&E Gas Transmission I-104 In-Line Inspection Upgrade Consolidated Coastal Development permit Project Description Modification and Notice of Incompleteness Response; dated June 9, 2016.
- PG&E Gas Transmission I-104 Project Second Notice of Incompleteness Response (Permit Application 9-16-0379); dated July 13, 2016.
- Technical Memorandum: Botanical Inventory; Locations 5B, 6A, and 6B; dated July 7, 2016.
- Storm Water Pollution Prevention Plan: PG&E 2016 Gas Transmission Program, North Coast Region; dated March 22, 2016, revised March 29, 2016.
- Storm Water Pollution Prevention Plan Segment Amendment: Gas Transmission Pipelines L-177A and L-189, Inline Inspection Upgrades I-104A, B, C, D, E, F, G, H, I and K; dated April 20, 2016, revised June 30, 2016.

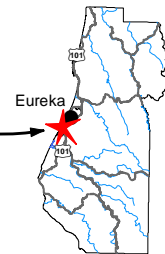


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● I-104 Locations



Project Location



Humboldt County, California

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
Figure 1
Project Location and Vicinity


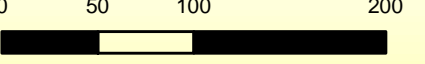


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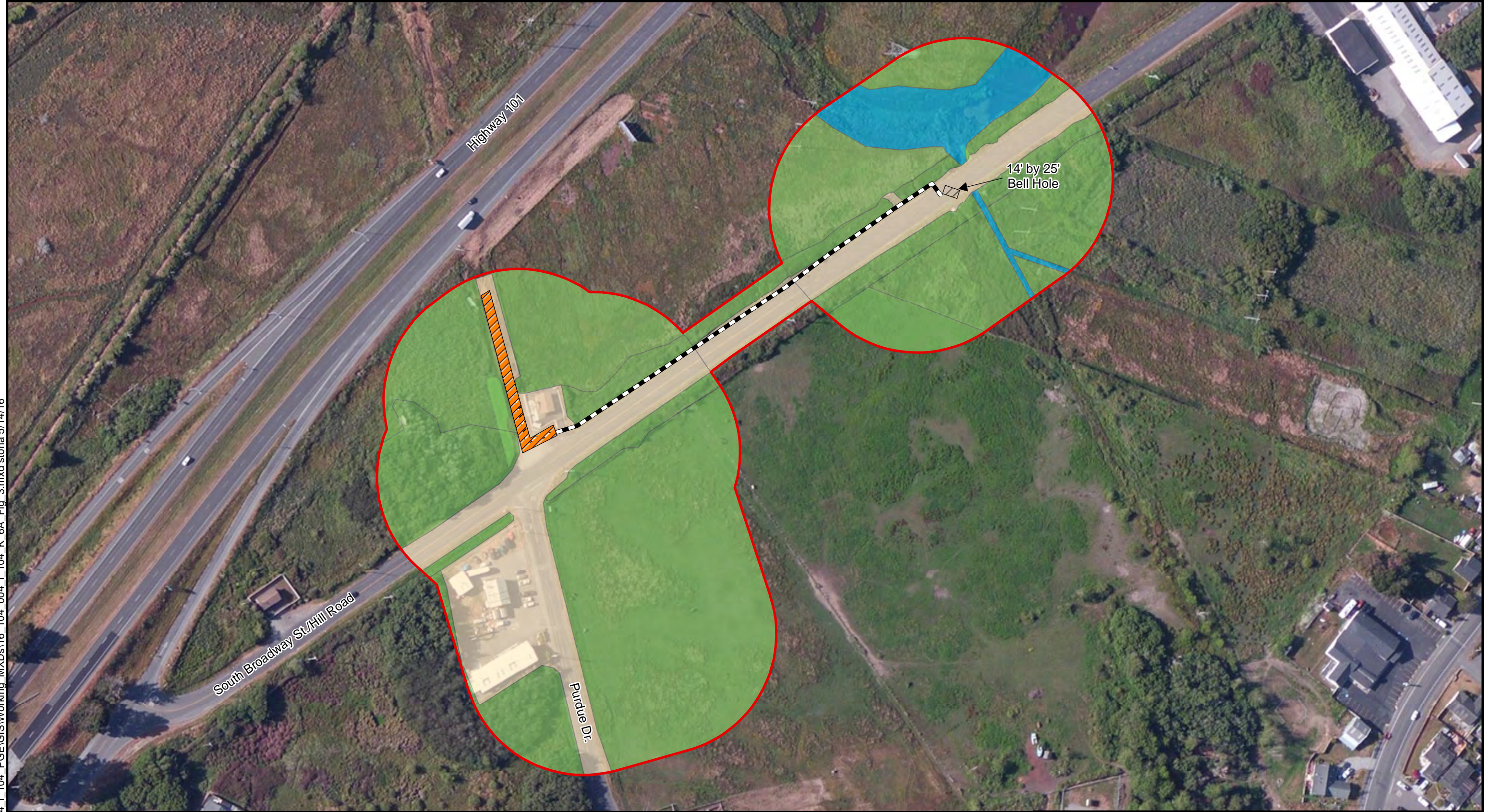
Prepared by:

North State Resources, Inc.
 5000 Bechelli Lane Suite 203
 Redding, CA 96002 Phone (530) 222-5347
 Fax (530) 222-4958 www.nsrmet.com

 Study Area	 Upland (Annual Grassland)
 Three-Parameter Wetland	 Coastal Zone Boundary
 One-Parameter Wetland	










 0 50 100 200
 Feet

Pacific Gas and Electric
I-104I Location 5B
Figure 1
Wetlands and Habitats
June 2016




Prepared by:


North State Resources, Inc.
 5000 Bechelli Lane Suite 203
 Redding, CA 96002 Phone (530) 222-5347
 Fax (530) 222-4958 www.nsrnet.com

 Study Area	 Other Waters
 Bell Hole	 Three Parameter Wetland
 Frac Tank Area	 Upland (Barren and Annual Grassland)
 Piping Layout	

N



0 50 100 200



Feet


**Pacific Gas and Electric
 I-104K Location 6A Water Management Area**





**Figure 2
 Wetlands and Habitats
 June 2016**

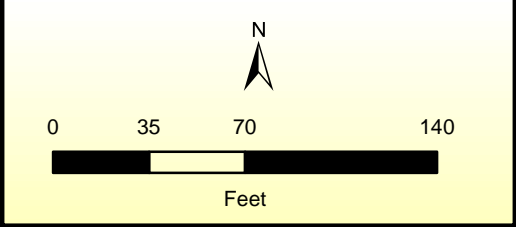
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Prepared by:

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 Redding, CA 96002 Phone (530) 222-5347
 Fax (530) 222-4958 www.nsrnet.com

-  Study Area
-  Three-Parameter Wetland (Fresh Emergent Wetland)
-  One-Parameter Wetland
-  Disturbed Upland



Pacific Gas and Electric
 I-104K Location 6B
Figure 3
 Wetlands and Habitats
 June 2016

FIGURE 2d



<p>THIS DRAWING IS FOR VISUAL REFERENCE ONLY. SCALE IS APPROXIMATE. LOCATION OF EXISTING AND PROPOSED STRUCTURES IS APPROXIMATE. ANY AND ALL DIMENSIONS ARE APPROXIMATE. ORIGINAL DRAWING SIZE 11"x17". IMAGE SOURCE: GOOGLE EARTH</p>	<p>GTS ENGINEERING & CONSULTING 575 LEMMON LANE, SUITE 250 WALNUT CREEK, CA 94598 (925) 478-8530 www.gtsinc.com</p>	DRN	RC	<p>FIGURE 3 L-189 RECEIVER & RETURN LINE HBGS RELOCATED GAS METER EUREKA, CALIFORNIA</p>	
		CHD	MD		
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SCALE	1" = 20'	DRAWING NUMBER	675-15219	SHEET	01 OF 01
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Avoidance and Minimization Measures

A consolidated listing of Avoidance and Minimization Measures (AMMs) that will be implemented as part of the Pacific Gas & Electric I-104 In-Line Inspection Upgrade Project in Humboldt County, California is provided below.

1. A biological monitor must be present during initial vegetation clearing, ground disturbance, and AMMs installation in the work areas and access roads to reduce the potential for impacting special status plant and wildlife species.
2. Prior to the start of any project work, all construction crew members will attend an environmental awareness training presented by the PG&E Project Biologist or their designee.
3. *N/A. Replaced with AMM No. 27.*
4. Surveys for Western lily shall be conducted during the blooming period (May–July) within the project work limits where wetlands were identified. Prior to conducting surveys at the project sites, reference populations shall be visited first to determine if Western lily is blooming, and therefore if present at the project sites would be blooming as well. If Western lily is identified during surveys it will be flagged and vehicle and equipment staging areas will be located at least 50 feet from flagged individuals. If Western lily individuals cannot be avoided PG&E will work with the appropriate local USFWS office to develop a plan to salvage and relocate individuals if deemed appropriate.
5. If work occurs between February 1st and August 31st, nesting bird surveys must be conducted prior to work. Contact the Project Biologist (Lindsey Koos; 925.983.9023) 14 days prior to work to arrange this survey. If an active bird nest is observed within or near project sites, work must cease, care shall be taken not to disturb the nest, and the work supervisor should contact PG&E Biologist Lindsey Koos. Appropriate disturbance buffers will be established around the active nest until the nest has fledged or failed for non-construction related reasons.
6. If any active bird nests (contain young or eggs), or other sensitive wildlife or plant species are observed, stop work in the area and immediately contact the PG&E Project Biologist (Lindsey Koos; 925.983.9023), the biological monitor, or the Land Planner (Erin Rice) to determine next steps. Do not handle or harass any wildlife. CDFW and USFWS will be notified by telephone within 24 hours of discovery. Any injured special-status species will be immediately transported to an approved wildlife rehabilitation clinic (<https://www.wildlife.ca.gov/Conservation/Laboratories/Wildlife-Investigations/Rehab/Facilities>) in coordination with CDFW and USFWS.
7. *N/A. Replaced with AMM No. 27.*
8. Fencing should be installed around the periphery of the wetland habitats to prevent impacts from vehicles and other equipment.
9. All vegetation removal within the project footprint, including within any areas of excavation or other ground disturbance, must be performed by hand or using hand tools. No weed trimmers, brush hogs, or other motorized equipment is authorized for use in vegetation removal. All vegetation removal must be approved by a certified arborist and supervised by an onsite biological monitor.
10. No equipment refueling will take place within 100 feet of wetlands or drainage features. If refueling must occur within 100 feet of a wetland or drainage feature, secondary containment will be used to prevent unanticipated spills into waterways. Spill kits will be on-site to manage any unanticipated spills of materials from project equipment. Crews will inspect equipment for leaks regularly and make repairs immediately if leaks are detected.

11. As necessary, erosion, sediment, and material stockpile BMPs should be employed between work areas and adjacent wetlands or waterways. No fill or runoff should be allowed to enter wetland areas or waterways. No plastic monofilament netting will be used for erosion control (e.g. matting, fiber roll, wattles, silt fencing backing). Appropriate materials are burlap, coconut fiber, or other material as identified in the general and site-specific storm water pollution prevention plan (SWPPP).
12. The contractor shall have readily available plastic sheeting or visqueen and will cover exposed spoil piles and exposed areas to prevent these areas from losing loose soil into wetlands and waterways. These covering materials shall be applied when it is evident rainy conditions threaten to erode loose soils into wetlands or waterways.
13. Debris, soil, silt, bark, rubbish, creosote-treated wood, raw cement/concrete or washing thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the wetlands or waterways. Any of these materials placed where they may enter the wetland or waterway shall be removed immediately.
14. All excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks at an angle no greater than 45 degrees. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
15. During fire season, all motorized equipment will have federal or state approved spark arrestors; a backpack pump filled with water and a shovel will be carried on all vehicles; and fire-resistant mats and/or windscreens will be used when welding. In addition, during fire "red flag" conditions as determined by California Department of Forestry (CDF), welding will be curtailed, each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C, and all equipment parking and storage areas will be cleared of all flammable materials.
16. Vehicle speeds on unpaved access routes shall not exceed 15 miles per hour and crews shall check for wildlife while driving to avoid collision.
17. Crews shall check under parked vehicles for wildlife before moving. This is an important step to ensuring avoidance of sensitive species.
18. When accessing work sites, limit travel and parking of vehicles and equipment to pavement, existing roads, and previously disturbed areas. Any additional staging or stockpiling areas must be reviewed and approved in advance by the PG&E Biologist and Land Planner.
19. Laydown and staging should be conducted in previously developed or disturbed areas.
20. Pipes and culverts greater than 4 inches in diameter will be covered and stored so as to prevent wildlife from taking refuge if possible. If this not possible the PG&E biologist will need to be consulted to develop an alternative.
21. The total project area will be limited to the pre-determined area, and encompass the minimum area necessary to achieve the goal of the project.
22. Trash dumping, firearms, open fires (such as barbecues) that are not required by the activity, hunting, and pets are prohibited at all work locations and access roads.
23. During project activities all trash will be contained and removed from the site on a daily basis. All trash and construction-related debris will be removed from the work areas following the end of construction.
24. Following the completion of the project, all construction materials, spoils, or other debris must be removed from the project site.

25. Work areas will be returned to preexisting contours and conditions upon completion of work.
26. If the project description, location, or schedule changes, contact the project biologist (Lindsey Koos) or Land Planner (Erin Rice) because different measures may be necessary to ensure protection of sensitive resources and compliance.
27. Sensitive Animal Species: A pre-construction clearance survey for special-status species shall be completed along the access routes and in all work areas prior to staging or construction. The timing of this survey should be as close to commencement of staging or construction as practicable (e.g., same day by biological monitor), but in no event shall be greater than 24 hours prior to commencement of staging or construction. Surveys for northern red-legged frog and western pond turtle shall be repeated following a rain event of 0.25 inch or greater. If any special-status species are detected during the surveys, the PG&E biologist will be notified and work activities with a potential to disturb the species shall stop until additional AMMs have been implemented in coordination with the PG&E biologist. These AMMs may include, but are not limited to: 1) waiting for the species to leave work areas; 2) relocating the species to appropriate habitat outside of the work areas; 3) establishing specific avoidance areas; and/or 4) additional environmental awareness training and biological monitoring.
28. The 2–4-inch dewatering pipe at Location I-104K Location 6A Water Management Area shall be securely installed on the ground surface of the road shoulder as far as practicable away from the adjacent wetland habitats. The dewatering pipe shall be secured using a method that does not result in significant disturbance to the ground surface (i.e., does not result in loose soils or other materials that could migrate into wetland habitats). Suitable erosion control materials (e.g. matting, fiber roll, wattles, silt fencing backing) shall be installed between the dewatering pipe and the adjacent wetlands to avoid the potential for movement of any disturbed soil or other materials from entering the adjacent wetlands.

The location of the dewatering pipe along its alignment shall be marked using highly visible and reflective flagging or other appropriate methods to prevent vehicles or equipment from encroachment on the dewatering pipe. At all times during active dewatering, the dewatering pipe shall be frequently inspected to ensure that: (1) it is remaining securely in place outside of the adjacent wetlands; (2) the erosion control barrier between the dewatering pipe and the adjacent wetlands is intact and functions; and (3) the dewatering pipe has not developed any leaks that could provide result in water and other materials entering the adjacent wetlands. If any problems with the dewatering pipe are detected (e.g., leaks), dewatering activities shall be suspended and shall not resume until the problem(s) has been corrected.

29. Storm Water Pollution Prevention Plan. Prior to the start of construction, PG&E shall prepare a Storm Water Pollution Prevention Plan (SWPPP). This SWPPP shall identify measures meant to stabilize soil in graded areas and to reduce erosion including, but not limited to, silt fences, fiber rolls, street sweeping and vacuuming, storm drain inlet protection, stockpile and solid waste management, vehicle and equipment maintenance, desilting basins, berms and barriers, mulching, seeding or other measures. The SWPPP shall also ensure that such measures are located, installed, and maintained in a manner that minimizes their effects on nearby wetlands to the extent feasible. The SWPPP shall also include a hazardous substance management plan that identifies handling, storage, disposal and emergency response procedures related to any hazardous waste that may be generated or identified during project activities.

30. Spill Prevention, Control, and Response Plan. Prior to the start of construction, PG&E shall prepare a Spill Prevention, Control, and Response Plan. This Plan shall describe all measures PG&E will implement to prevent spills of fuel from vehicles and to respond to spills should they occur. The Plan shall identify the maximum possible spills that could occur, based on the capacities of vehicles and equipment used for project activities at each work site and shall identify the cleanup equipment that will be immediately available should such spills occur. The Plan shall also identify any nearby wetlands, coastal waters, drainages, and sensitive habitat areas and shall identify focused efforts PG&E will implement to prevent any spills from affecting those areas. The Plan shall also demonstrate that adequate equipment, personnel and protocols are in place to address the spill quickly and effectively, and shall include notification procedures to local spill responders.
31. Although no earth-moving activities at I-104B Fields Landing are anticipated, BMPs shall be implemented to protect the drainage channels located east of the project area. Examples of BMPs that may be utilized include, but are not limited to, fiber rolls, gutter buddies, and visqueen. Orange barrier fencing and informative signage shall be installed along the perimeter of the project area to ensure that project activities are confined to approved project areas.
32. The temporary access roads at I-104I Location 5B and I-104K Location 6B shall be developed using methods that minimize disturbance to existing vegetation and the ground surface. No clearing of vegetation or grading of soils shall be allowed. Appropriate access road construction methods may include installation of construction mats, geotextile fabric overlain by crushed rock, or other available methods that can accommodate construction vehicles and equipment while protecting vegetation and soils to the extent practicable. All vehicles and equipment shall remain within the established access road and work area boundaries. Following construction, all materials used to construct the access road shall be removed and the area restored as close as practicable to pre-construction conditions.
33. Restoration Temporary Wetland and Upland Impacts. Prior to the start of construction, PG&E shall prepare a final Site Restoration Plan that describes how temporary impacts on upland and wetland habitats will be restored.
34. Avoidance and Mitigation Measures. Prior to the start of construction, PG&E shall submit to the California Coastal Commission, a document identifying all proposed Avoidance and Mitigation Measures (AMMs). PG&E shall implement the approved AMMs.
35. Approved Biological Monitor(s): PG&E shall submit to the California Coastal Commission the names of qualified biologists to implement the surveys, monitoring, and mitigation measures identified in the AMMs. The submittal shall include the qualifications and the proposed role of each biologist in implementing the relevant AMMs.
36. Avoiding Adverse Effects to Active Bird Nests. The nesting bird surveys (if required based on project timing) shall be completed no more than 72 hours prior to activities at each work location. Results of each survey shall be made available to the California Coastal Commission Executive Director upon request. If project activities are to occur within 500 feet of an active raptor nest or within 300 feet of any other active nest, PG&E shall submit a noise report from a certified acoustician to the California Coastal Commission Executive Director to document the noise levels at those nest sites that would result from project activities. If the report indicates noise from project activities will exceed 60 dBA Leq(h) or ambient noise levels (whichever is greater) at active nests, the report shall identify what measures PG&E will implement to attenuate project-generated noise to below that level at the active nest sites (e.g., use of sound blankets, reduced engine operations, noise suppression devices, etc.). The report shall also describe the expected level of sound attenuation resulting from those measures and the basis for that expected level of attenuation. If, with those measures, project activities would still exceed the allowable noise levels at the active nest site, project activities shall be deferred at that location until the biological monitors determine that the nest is no longer active.

37. Protecting Sensitive Vegetation: Prior to construction, all works areas shall be surveyed for special-status plant species that may be affected by project activities. The surveys will be consistent with the protocols of the November 24, 2009 California Department of Fish and Game *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*, except as modified as below:
- a) The biologists will conduct the surveys prior to any ground disturbing activities at each work location and when the sensitive species that are known or expected to occur at each location are identifiable.
 - b) The biologists will identify the type and location of any identified sensitive species and will note the locations on a detailed map that shows their location in relation to the areas to be affected by project activities.
 - c) Based on survey results, the biologists will also recommend any modifications at each of the project's proposed work locations that will avoid or minimize potential adverse effects to identified sensitive vegetation species (e.g., relocating or shifting the location of accessways, staging areas, etc.).
 - d) PG&E shall submit, for California Coastal Commission Executive Director review and approval, the survey results, the biologists' recommendations, and any proposed work location modifications that will avoid or minimize adverse effects to these species.

I-104 In-Line Inspection Upgrade Project
Humboldt County, California

**Site Restoration Plan for
Temporarily Disturbed Areas in the Coastal Zone**



June 2016

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1. Introduction

This document describes the site restoration plan (plan) for the Pacific Gas and Electric (PG&E) I-104 In-Line Inspection Upgrade Project (project) in Eureka, Humboldt County, California. The plan describes how wetland and upland habitats within the coastal zone that are temporarily disturbed by project activities will be returned to pre-existing conditions upon completion of work. Project activities resulting in temporary ground disturbance include: placement of frac tanks, temporary access roads, laydown and staging areas, and bell hole excavations. No permanent disturbances are anticipated as a result of this project (i.e., no permanent installation of above-ground infrastructure will occur in any natural areas). With implementation of the plan, vegetated project areas subject to temporary disturbance will be restored to pre-project conditions.

2. Project Location

The project sites addressed in this plan consist of four separate locations south of the city of Eureka, California. These project sites are identified below and their locations are illustrated on Figure 1 (Appendix A).

- I-104I Location 5B; located on Tompkins Road (Figure 2, Appendix A).
- I-104K Location 6A; located on Hill Road and Purdue Street (Figure 3, Appendix A).
- I-104 Project Laydown and Staging Area at Fields Landing; located north of C Street in Fields Landing (Figure 4, Appendix A).
- I-104K Location 6B; located off of King Salmon Avenue, adjacent to the Humboldt Bay Generating Station (Figure 5, Appendix A).

Note: Upgrade I-104B is located within a graveled area on the HBGS power plant site. Given this, restoration is not warranted for this upgrade.

3. Existing Vegetation and Anticipated Temporary Disturbance

Descriptions of the existing vegetation and anticipated temporary disturbances for each of the four project sites are provided below. Anticipated temporary ground disturbances by site and vegetation type are summarized in Table 1.

Table 1. Summary of Temporary Disturbance by Vegetation Type

Site	Habitat Type	Temporary Disturbance
I-104I Location 5B	Wet meadow (3-parameter wetland)	0.249 acre
	Wet meadow (1-parameter wetland)	0.009 acre
	Annual Grassland (Upland)	0.147 acre
I-104K Location 6A Water Management Area	Annual Grassland (Upland)	0.124 acre
I-104K Location 6B	Wet Meadow (3-parameter wetland)	0.004 acre
	Coastal Scrub (1-parameter wetland)	0.027 acre

3.1 I-104I Location 5B

Temporary ground disturbance will result from construction of a temporary access road, use of a 50' x 175' work area, and excavation of two bell holes (4' x 51' and 10' x 34'). These project activities will occur in both a wet meadow plant community and an annual grassland plant community. The wet meadow community is shown as the three-parameter and one-parameter wetlands on Figure 2 (Appendix A), while the annual grassland is shown as upland. Common plants of the wet meadow community include Pacific rush (*Juncus effusus* ssp. *pacificus*), buttercup (*Ranunculus repens*, *Ranunculus* sp.), smartweed (*Persicaria* sp.), and horsetail (*Equisetum* sp.). The annual grassland is composed mainly of non-native grasses and forbs, and is dominated by: broadleaf plantain (*Plantago major*), annual blue grass (*Poa annua*), Canada blue grass (*Poa compressa*), clover (*Trifolium* spp.), perennial rye grass (*Festuca perennis*), and dock (*Rumex* spp.).

3.2 I-104K Location 6A Water Management Area

Ground disturbance of vegetated areas at this site will be confined to the frac tank location west of the Humboldt Community Services District (HCSD) facility. Depending on the amount of time the frac tank (or other equipment to hold water) occupies this site and other factors, the area may or may not need restoration. The site will be evaluated before restoration occurs to determine if re-seeding is appropriate (evaluation described further below). Vegetation at the frac tank location consists of a moderately disturbed annual grassland plant community. Dominant grasses and forbs include sweet vernal grass (*Anthoxanthum odoratum*), English plantain (*Plantago lanceolata*), soft brome (*Bromus hordeaceus*), cut-leaved geranium (*Geranium dissectum*), and common sheep sorrel (*Rumex acetosella*).

No significant ground disturbance of vegetated areas will occur during excavation of the bell hole in Hill Road or placement of the 2–4-inch lay-flat dewatering pipe. Excavation of the bell hole will be limited to the existing road surface and the dewatering pipe will be placed on the ground surface along the existing road shoulder. Any disturbance to vegetation from the bell hole and dewatering pipe is anticipated to be very minimal and restoration beyond removal of materials is not anticipated to be required.

3.3 I-104 Laydown and Staging Area at Fields Landing

This site is a staging and laydown area in a heavily disturbed area. The site is largely non-vegetated, though scattered ruderal vegetation is likely present. The site conditions after the project is complete will be comparable to pre-construction conditions; thus, restoration is not proposed.

3.4 I-104K Location 6B

Temporary ground disturbance will result from construction of a temporary access road, use of a 25' x 40' work area, and excavation of a 8' x 16' bell hole. These project activities will occur in both a wet meadow plant community and a coastal scrub plant community. The wet meadow community is shown as three-parameter wetland on Figure 5 (Appendix A), while the coastal scrub community is shown as one-parameter wetland. Vegetation in the wet meadow community consists primarily of Himalayan blackberry (*Rubus armeniacus*), baltic rush (*Juncus balticus*), and Pacific rush. The coastal scrub community is dominated by California blackberry (*Rubus ursinus*) and a variety of grasses and forbs, including sweet vernal grass, English plantain, and pampas grass (*Cortaderia* sp.).

4. Stabilization and Seeding

On completion of the project, the ground disturbance areas will be evaluated for restoration. The evaluation will determine the need for any contour restoration and re-establishment of vegetation. Contours will be restored to pre-construction conditions. The disturbed areas will be re-seeded with a native seed mix appropriate for the area obtained from a reliable supplier of weed-free, native seed mix. Suggested species for inclusion in the native seed mix are provided in Table 2 and Table 3.

Table 2. Suggested Local Upland Plant Species

Scientific name	Common name
<i>Danthonia californica</i>	California oatgrass
<i>Distichlis spicata</i>	saltgrass
<i>Deschampsia cespitosa</i>	tufted hair grass
<i>Festuca rubra</i>	red fescue
<i>Fragaria chiloensis</i>	beach strawberry
<i>Hordeum brachyantherum</i>	meadow barley
<i>Iris douglasiana</i>	Douglas iris
<i>Symphotrichum chilense</i>	Pacific aster

Table 3. Suggested Local Wetland Plant Species

Scientific name	Common name
<i>Bolboschoenus robustus</i>	seacoast bulrush
<i>Cyperus eragrostis</i>	tall flatsedge
<i>Juncus lescurii</i>	San Francisco rush
<i>Juncus effusus</i>	soft rush
<i>Mimulus guttatus</i>	monkey flower
<i>Oenanthe sarmentosa</i>	water parsley

Broadcast seeding or hydroseeding will take place in all disturbed areas with the appropriate seed mix for the habitat type, and a layer of tackifier and mulch will be spread over the seeds. No fertilizer will be applied with the seed mix.

5. Success Criteria

The habitat in and surrounding the work areas are largely dominated by non-native plants. It is unlikely that native vegetation will persist long-term in these areas and establishment of native vegetation is not considered to be a success criterion. A subset of the adjacent, undisturbed areas will be used as reference sites. Reference sites will be selected that have a similar species composition, percent cover, slope, aspect, and hydrological condition as the areas proposed for temporary disturbance. The reference sites will allow for comparisons to be made against the restored areas to determine if success criteria have been met.

The success criteria are as follows:

- Minimum 70% cover relative to reference sites.
- California Invasive Plant Council (Cal-IPC) high-rated invasive plants¹ equal in cover or less than adjacent undisturbed areas.

6. Monitoring and Reporting

A qualified biologist will conduct two monitoring surveys in the project's restored work areas in the year following project completion—once the following spring, and once the following summer. The sites will be evaluated against the restoration success criteria and adjacent reference sites. The biologist will collect and record the following information from representative sample plots within the restoration and reference sites during each survey:

- Absolute percent plant cover
- Percent cover of native plant species
- Percent cover of non-native plant species
- Percent cover of Cal-IPC high-rated invasive plants
- Species composition of the upland areas and wetland areas
- Representative photographs of the restored area and reference sites, taken from the same location in the same orientation each visit.

Site visits will be conducted in the spring as new vegetation is emerging and during the summer, prior to seed set. A monitoring report will be submitted to the CCC Executive Director no more than 30 days after each site visit. The first report will provide the species list of the seed mix used at each site. Each report will include: (1) a summary of the sampling data; (2) a comparison of pre-project and post-project conditions; (3) an assessment of the overall condition of the vegetation; (4) an evaluation of whether any impacts appear likely to be more than temporary; and (5) a determination as to whether the success criteria have been met.

¹ www.cal-ipc.org/paf/

If both success criteria are met by the second monitoring visit, no further site visits will be conducted. If the success criteria are not met by the second visit or if there are long-term effects that remain after the second visit, additional monitoring or remedial actions may be required, as determined in coordination with the CCC. This coordination will include submission of a supplemental restoration plan to the CCC Executive Director for review and approval. The supplemental plan will be submitted within 90 days of the final site visit. This supplemental plan will describe what remedial actions and/or additional monitoring is proposed to ensure the success criteria are achieved and that any long-term effects are mitigated.



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April 15, 2016

Cultural Review for PG&E Projects I-104I-5B, I-104J, I-104K-6A, I-104K-6B, and I-104B along Line 177A and Line 189, Humboldt County

This document describes preliminary cultural resource identification efforts conducted by Pacific Gas and Electric Company (PG&E) for an In Line Inspection Upgrade project collectively designated as I-104 occurring in Humboldt County, California. The project extends approximately 24 miles from Cummings Creek Station (southeast of Carlotta) to the Humboldt Bay Generating Station (HBGS) in Eureka. The I-104 project consists of five components that are situated within the Coastal Zone and are addressed herein: I-104I-5B, I-104J, I-104K-6A, I-104K-6B, and I-104B (Figure 1). The project requires oversight from state agencies, and as such, this study demonstrates compliance with the California Environmental Quality Act (CEQA; Public Resources Code Section 21000 et seq.).

Project Descriptions:

Project I-104 is an In Line Inspection Upgrade project occurring on gas transmission pipelines Line 177A and Line 189 in Humboldt County. PG&E will retrofit approximately 24 miles of pipeline necessary to test Line 177A from Cummings Creek Station, through Line 189 to a receiver at the HBGS. This document addresses project components I-104I-5B, I-104J, I-104K-6A, I-104K-6B, and I-104B that fall within the Coastal Zone.

I-104I-5B (Line 177A MP 183.20) will replace an untestable drip feature with straight pipe as the drip is no longer necessary with today's higher quality, dry natural gas. Construction activities will include the excavation of four bell holes (4 ft. x 51 ft., 10 ft. x 34 ft., and two 6 ft. x 6 ft.), an access road extending from Tompkins Hill Road ranging between 12-30 ft. in width, and 24 ft. x 175 ft. work space.

I-104J (Line 189 MP 0.89-1.03) will replace approximately 2,200 ft. of gas transmission pipe to route around untestable miter bends originally installed within a large ravine. The replacement starts outside the Coastal Zone and extends into the Coastal Zone. Construction activities will include the excavation of trench measuring approximately 2,200 ft. x 2 ft., a 50 ft. wide construction corridor surrounding the trench, a 100 ft. x 300 ft. laydown/staging area, and access road extending from Golden W. Drive. Approximately 1,430 ft. of existing gas transmission Line 189 will be retired in place.

I-104K-6A (Line 189) will install a new valve where Line 189 crosses Hill Road. Two bell holes (14 ft. x 22 ft. and 6 ft. x 6 ft.) will be excavated and all work at I-104K-6A will occur within Hill Road or the road shoulder.

I-104K-6B (Line 189) will replace an untestable Pressure Control Fitting. Existing documents show the Pressure Control Fitting was installed 38 ft. from an existing above ground pipe feature within HBGS. Construction activities will include the excavation of an 8 ft. x 16 ft. bell hole, a 25 ft. x 40 ft. work area, and 12 ft. wide access road extending south from the HBGS.

I-104B (HBGS) will convert the existing temporary gas line inspection tool receiver on Line 189 to a permanent receiver set-up. The existing receiver at the HBGS is a temporary set-up, which requires PG&E to bring in temporary equipment and piping for inspection. PG&E would like to replace the temporary set-up with a permanent receiver set-up to facilitate future inspections. Construction activities will include an excavation space measuring approximately 35 ft. x 35 ft., a 7,300 sq.ft.



laydown/ staging area, and 8 ft. x 185 ft. work area. All of these will be contained within the existing fenced station, on paved or improved surfaces.

The Area of Potential Effect (APE) (Figure 2) for the five project components discussed above includes: at I-104I-5B the excavation of four bell holes, access road extending from Tompkins Hill Road, and work space; at I-104J the excavation of a new pipe trench, construction corridor surrounding the trench, excavation of two bell holes, a laydown/staging area, and access road extending from Golden W. Drive; at I-104K-6A the excavation of two bell holes; at I-104K-6B the excavation of a bell hole, a work area, and access road extending south from the HBGS; and at I-104B an excavation space, laydown/staging area, and work area. Vertical disturbance at each of these locations will vary depending on the depth of the pipe, with depths ranging between six and ten feet below the ground surface.

Cultural Resource Assessment:

The APE was subject to record searches (NWIC File #: 13-0737, 13-1051, and 13-1188) as part of two 2014 PG&E Hydrotest studies (Kellawan 2014; Wisely 2014). The record search data on file with PG&E included all cultural resources and studies located within one-quarter mile of I-104I-5B and I-104J. The 2014 record search data that included I-104K-6A, I-104K-6B, and I-104B was limited to only archaeological resources within one-quarter mile of these project components. It did not examine built environment or previous studies. A supplemental record search, conducted by the Northwest Information Center on March 22nd, 2016 (NWIC File #: 15-1362), addressed this data gap. PG&E's cultural resource database was also consulted in an effort to identify previous studies and known cultural resources within one-quarter mile of the APE. The 2014 and 2016 record searches included a review of the following: National Register of Historic Places Listed Properties and Determined Eligible Properties; the California Register of Historical Resources; the California Points of Historic Interest; the California Inventory of Historic Resources; California Historical Landmarks; and the Directory of Properties in the Historic Property Data Files for Humboldt County.

These efforts identified seven previously recorded cultural resources (Table 1) located within one-quarter mile of I-104I-5B, I-104J, I-104K-6A, I-104K-6B, and I-104B. None of these seven resources overlap the APE. There were 19 previous studies identified within one-quarter mile of the 5 project components, 7 of which intersect the APE (Table 2).

Buried sensitivity studies on file with PG&E indicate a moderate to high potential for cultural resources to be present within the APE (Kellawan 2014, Wisely 2014). A study conducted for the HBGS (Helton 2011) indicated I-104B and I-104K-6B are situated in locations where a cultural A horizon could be encountered at a depth of 1.5-4 ft. below grade. Additionally, in 2008 isolated lithics and historic period artifacts were observed within 50-100 ft. of the HBGS and near I-104K-6B during subsurface monitoring (Zalarvis-Chase 2011).

Finally, a review of historic period topographic maps and orthoimagery identified two previously unrecorded historic period cultural resources. The first resource is an agricultural complex visible on 1940 orthoimagery (NETR Online 2016) adjacent to the I-104J APE. The second resource is Hill Road, which intersects the I-104K-6A APE. Hill Road is visible on both the 1940 orthoimagery (NETR Online 2016) and 1944 Fortuna topographic map (USGS 1944).



Table 1: Previously Recorded Cultural Resources Identified within One-quarter Mile of the APE.

Project Component	Site ID/ Number	Site Type	Description	Distance from APE	Status Code	In APE?
I-104B; I-104K-6B	Humboldt Bay Power Plant Fuel Pipeline	Historic	A 3,805-foot-long, 14-inch-diameter iron and concrete fuel oil supply line. The fuel line was constructed for the HBPP in 1956 to supply the plant with fuel oil.	0.18 mi.	6Z	No
I-104B; I-104K-6B	HBPP Cooling Water Intake Canal	Historic	Canal constructed by PG&E in 1956 to bring in cooling water for its steam power plant on Humboldt Bay.	0.11 mi.	None	No
I-104B; I-104K-6B	P-12-003105; CA-HUM-1490/H	Multi-component	Cultural deposits identified during monitoring including: railroad ties, one horse shoe, and five chert flakes.	100 ft.	None	No
I-104B; I-104K-6B	P-12-003104; CA-HUM-1485	Historic	Two associated buried historic period features: a burnt debris deposit and an-unimproved road bed dating early to mid-20 th century.	0.17 mi.	None	No
I-104I-5B	P-12-000146; CA-HUM-88	Prehistoric/ Ethnographic	Also known as Ātwhutkārūwiltaliwēl, occupied in 1850. No additional details provided.	0.23 mi.	None	No
I-104I-5B	P-12-000145; CA-HUM-87	Prehistoric/ Ethnographic	Also known as Totērnērklomuk, not occupied in 1850. No additional details provided.	0.25 mi.	None	No
I-104I-5B	P-12-003224	Historic	Tompkins Hill Road. Active and maintained roadway dates to the early-20 th century.	6 ft.	None	No

Table 2: Previous Cultural Studies Identified within One-quarter Mile of the APE.

Project Component	Author	Author's Association	Date	Title	Intersects APE?
I-104B; I-104K-6A; I-104K-6B	Berg	Archaeological Resource Service	1974	Archaeological Impact Evaluation, Humboldt Harbor and Bay Navigation Improvement Project: A Report on Field Investigations Undertaken for Environmental Research Consultants on Behalf of the US. Army Corps of Engineers Pursuant to the Deposition of Dredge Spoil on Five Disposal Sites.	<u>Yes:</u> I-104B, I-104K-6B; <u>No:</u> I-104K-6A,



Project Component	Author	Author's Association	Date	Title	Intersects APE?
I-104B; I-104K-6A; I-104K-6B	Benson, Fredrickson, and McGrew	Northwest Indian Cemetery Protective Association, Inc. and CSU, Sonoma	1977	Humboldt Bay Wastewater Authority, Regional Water Pollution Control Board Facility, Archaeological Resource Analysis: Archaeological Reconnaissance of the Humboldt Bay Area.	<u>Yes</u> : all
I-104B; I-104K-6A; I-104K-6B;	Roop et al, Flynn, Parsons, and Bacchetti	ABACUS Archaeological Associates	1995	An Evaluation of the Archaeological Potential within the North Coast Railroad, Eureka to Willits, California, and a Field Inspection of 23 Repair Points along the Route, Final Report.	<u>No</u> : all
I-104B; I-104K-6A; I-104K-6B;	Compas and Maniery	PAR Environmental	2003	Cultural Resources Study for the PG&E Humboldt Bay Power Plant, ISFSI Licensing Project (Final Report).	<u>Yes</u> : I-104B, I-104K-6B; <u>No</u> : I-104K-6A
I-104B; I-104K-6A; I-104K-6B	Shapiro	Pacific Legacy	2007	Addendum Cultural Resources Survey for the PG&E Humboldt Bay Re-Powering Project Humboldt County, California	<u>No</u> : all
I-104B; I-104K-6A; I-104K-6B;	Hilton and Bard	CH2M Hill	2008	Construction Compliance Plan: Cultural Resources Monitoring and Mitigation Plan for the Humboldt Bay Repowering Project, Humboldt County California (06-AFC-07).	<u>Yes</u> : I-104B, I-104K-6B; <u>No</u> : I-104K-6A
I-104B; I-104K-6A; I-104K-6B	Leach-Palm and Hildebrant	FWARG	2008	Phase I Archaeological Survey of 262 Locations Planned for Metal Beam Guardrail Construction along State Route 101, Humboldt County 01-HUM-101, PM 0.20-126.00 (KP 0.32-202.77), EA 01-464000	<u>No</u> : all
I-104B; I-104K-6A; I-104K-6B;	JRP Historical Consulting	JRP Historical Consulting	2009	Mitigation Plan, Humboldt Bay Power Plant, Prepared in Response to California Energy Commission CUL-10 for Demolition of Units 1, 2, and 3.	<u>YesNo</u> : all
I-104B; I-104K-6A; I-104K-6B	PG&E	PG&E	2010	Archaeological Resources Protection Plan for the Humboldt Bay Power Plant Decommissioning Project, Humboldt County, California.	<u>Yes</u> : I-104B; <u>No</u> : all I-104K-6A, I-104K-6B
I-104B; I-104K-6A; I-104K-6B;	Helton	CH2M Hill	2011	Cultural Resources Monitoring Report, Humboldt Bay Generating Station, Humboldt County, California (06-AFC-07).	<u>YesNo</u> : all
I-104B; I-104K-6A; I-104K-6B;	Zalarvis-Chase	DZC Consulting	2011	Cultural Resources Compliance Review for the Humboldt Bay Power Plant Decommissioning Project, Humboldt County, CA.	<u>Yes</u> : I-104B; <u>No</u> : I-104K-6A, I-104K-6B



Project Component	Author	Author's Association	Date	Title	Intersects APE?
I-104B; I-104K-6A; I-104K-6B	Paullin	USDA-Natural Resources Conservation Service	2011	Field Office Report of Cultural Resources Ground Survey Findings, structures for water control, seeding, WRP easement	<u>No</u> : all
I-104B; I-104K-6A; I-104K-6B;	Zalarvis-Chase	DZC Consulting	2013	Cultural Resources Monitoring Report Humboldt Bay Power Plant Decommissioning, Humboldt County, CA.	<u>No</u> : all
I-104B; I-104K-6A; I-104K-6B;	Zalarvis-Chase	DZC Consulting	2013	Cultural Resources Monitoring Report No. 2 September 2013 through March 2014, Humboldt Bay Power Plant Decommissioning Project, Humboldt County, CA.	<u>No</u> : all
I-104B; I-104J; I-104K-6A; I-104K-6B	Wisely	FWARG	2014	Cultural Resources Constraints Report: 2014 Hydrotest Segment T-374-14.	Yes : I-104B, I-104J, I-104K-6B; No : I-104K-6A
I-104B; I-104K-6A; I-104K-6B;	Zalarvis-Chase	DZC Consulting	2014 3	Cultural Resources Monitoring Report No. 1 August 2010 through August 2013, Humboldt Bay Power Plant Decommissioning Project, Humboldt County, CA.	<u>No</u> : all
I-104I-5B	Wisely	FWARG	2014	Cultural Resources Constraints Report: L-177A CTS, PM 30937475.	Yes
I-104I-5B; I-104J	Kellawan	FWARG	2014	Cultural Resources Study of the PG&E Hydrostatic Test Segment T-326-14, on Line 126b, MP0.00-10.57, Humboldt County, California.	<u>Yes</u> : all
I-104I-5B; I-104J	Wisely	FWARG	2014	Cultural Resources Constraints Report: 2014 Hydrotest Segment T-326-14.	<u>Yes</u> : all

*FWARG: Far Western Anthropological Research Group, Inc.

Preliminary Native American Coordination:

A sacred land file search request was submitted to the Native American Heritage Commission (NAHC) on February 26, 2016 (Attachment 2). A response was received on March 25th, 2016, stating that no Native American cultural resources listed on the Sacred Lands files were identified in the project area. The NAHC also provided PG&E with a list of four Native American contacts that may have knowledge of cultural resources in or near the APE. Letters were sent to the four individuals provided by the NAHC on April 14th, 2016. PG&E is currently awaiting responses to these letters.

Preliminary Pedestrian Survey:

The desktop cultural assessment identified both a high sensitivity for cultural resources to be present and a lack of prior survey coverage at I-104I-5B, I-104J, and I-104K-6A. Therefore, a pedestrian survey was conducted on February 22 and 23, 2016, by PG&E Cultural Resource Specialists Starla Lane, M.A., and Andrea Schlientz, B.A. Locations I-104K-6B and I-104B were not surveyed as they had been subject



to prior study as part of the Humboldt Bay Generating Station, which did not identify cultural resources on the surface (Zalarvis-Chase 2011).

Visible landmarks, plan maps, and GPS were used to locate and survey the APE. Once located, work locations and identified access roads were intensively surveyed. When work areas were large enough, a series of parallel transects spaced at most approximately 10 meters apart were implemented. Survey transects were narrower in more confined locations. Ground visibility varied from 0 to 10% across the APE. The survey areas fell within grass-covered agricultural fields or developed surfaces (i.e. paved roads). When present rodent back dirt mounds were inspected, along with cut banks or exposed hill sides, and at times the ground surface was scraped back for better visibility.

The pedestrian survey resulted in the identification of five new cultural resources (Table 3). Four of the resources are within or adjacent to the I-104J project’s APE, while the fifth is located within the I-104-6A APE (Figure 3). The four resources identified at I-104J include one prehistoric period lithic scatter (PGE-I104J-01); one historic period ceramic and glass scatter (PGE-I104J-02); one historic period concrete and brick foundation (PGE-I104J-03); and a historic period agricultural complex (PGE-I104J-04). The fifth resource identified in the APE at I-104-6A is Hill Road (PGE-I104K-01). No new cultural resources were identified within or adjacent to the APE of I-104I-5B.

Table 3: Pedestrian Survey Results.

Project Component	Temporary Number	Site Type	Description	In APE?
I-104J	PGE-I104J-01	Prehistoric	Lithic scatter observed within an area 10 m in diameter. Cultural constituents include one blue-green cryptocrystalline silica (CCS) core, one red CCS core with quartz inclusions, one blue-green CCS flake, and one red-brown CCS flake. All of the lithics were observed in rodent back dirt.	Yes
I-104J	PGE-I104J-02	Historic	Moderately dense glass and ceramic scatter broadly distributed on a knoll adjacent to the northwest side of an extant barn (PGE-I104J-04). Daffodils were also observed blooming on site. Structures are visible at this location on 1940 orthoimagery (NETR Online 2016).	No
I-104J	PGE-I104J-03	Historic	Square concrete and brick foundation measuring 3 m x 4 m, with bolts extending from concrete, adjacent to the north side of a spring.	No
I-104J	PGE-I104J-04	Historic	Extant agricultural complex consisting of a large barn, corrals, and several ancillary structures. Visible on 1940 orthoimagery (NETR Online 2016).	No
I-104K-6A	PGE-I104K-01	Historic	Hill Road: actively maintained paved road, visible on 1940 orthoimagery (NETR Online 2016).	Yes

Summary of Findings:

I-104I-5B (Line 177A MP 183.20): This project component had been previously subject to a record search, buried site sensitivity assessment, and partial survey as part of a 2014 ASR (Kellawan 2014). A survey conducted for this study failed to identify cultural resources in the current I-104I-5B APE. No further cultural resources work is required.



I-104J (Line 189 MP 0.89-1.03): There were four new cultural resources identified in or directly adjacent to the I-104J APE during the pedestrian survey. These include one prehistoric period lithic scatter (PGE-I104J-01); one historic period ceramic and glass scatter (PGE-I104J-02); one historic period concrete and brick foundation (PGE-I104J-03); and a historic period agricultural complex (PGE-I104J-04). Cultural resources PGE-I104J-02, PGE-I104J-03, and PGE-I104J-04 are outside of the APE and will be avoided by I-104J construction activities, resulting in no effect to these three resources.

Low surface visibility resulted in a low level of confidence that the entire extent and nature of PGE-I104J-01 (lithic scatter) had been determined. PG&E is conducting an Extended Phase I study prior to the start of construction activities to determine whether the resource will be affected. For the purposes of this project, the single resource within the APE (PGE-I104J-01) will be assumed eligible for the California Register of Historical Resources; however, it will not be formally evaluated as it is likely the amount of data resulting from the Extended Phase I study (limited to the APE) would not be sufficient to adequately evaluate the resource.

Currently, the known extent of PGE-I104J-01 is limited to a 10 m diameter area at the southern edge of the construction corridor (Figure 3). It is unclear how far it extends into the APE or how much of the site may be directly/indirectly impacted. PG&E has hired a CRM firm to document the resources and execute testing. Extended Phase I testing began April 13th, 2016, along the proposed pipeline route in order to establish the presence or absence of PGE-I104J-01 within the APE. The results of this testing is forthcoming. If the test excavations indicate the lithic scatter is a discrete deposit that does not extend into the proposed excavation trench, then exclusionary fencing will be placed around the resource to protect it from surface disturbances during construction. However, if it is discovered that the resource extends to the proposed excavation trench then PG&E will begin examining avoidance and minimization options. Once Extended Phase I testing has been completed the results, as well as DPR 523 forms for all four resources, will be provided in an addendum by June of 2016.

I-104K-6A: All work at I-104K-6A will occur within a road bed (Hill Road) that has been significantly elevated above the surrounding wetlands. One historic period cultural resource, Hill Road (PGE-I104K-01), was identified within the I-104K-6A APE. For the purposes of this project, the resource within the APE will be assumed eligible for the California Register of Historical Resources; however, it will not be formally evaluated given the limited scope and nature of this project. While Hill Road (PGE-I104K-01) will be excavated into, none of the character defining features associated with this resource will be altered. Construction activities at I-104K-6A will not affect the location, design, setting, materials, workmanship, feeling or association of Hill Road (PGE-I104K-01). This cultural resource will not be demolished, destroyed, relocated or altered such that the significance will be impaired. Therefore, no historic properties/historical resources or cultural resources will be affected/impacted as a result of project component I-104K-6A. A DPR 523 form for Hill Road (PGE-I104K-01) will be provided in an addendum by June of 2016.

I-104K-6B: This location is outside of the HBGS station fence approximately 38 ft. from an existing above ground pipe feature. Prior site sensitivity assessments (Helton 2011, Zalarvis-Chase 2011) indicated isolated flake stone artifacts and historic period artifacts had been observed very near I-104K-6B. There is potential for sensitive cultural resources at I-104K-6B.



Prior to starting any work at I-104K-6B all PG&E employees and contractors must receive training on environmental and cultural conditions and requirements applicable to this construction activity location. If additional crewmembers arrive later in the job, they must go through the training prior to beginning work. Training will include a discussion of the avoidance and minimization measures that must be implemented as presented in this RTC. Additionally, a cultural monitor is required for all ground disturbing activities associated with project component I-104K-6B.

I-104B (HBGS): Prior studies identified I-104B as potentially possessing a cultural A horizon at a depth of 1.5-4 ft. below grade. The proposed permanent receiver up-grade is located in a highly disturbed context having been subject to historic period agriculture and the installation of the HBGS. As a result, it is unlikely that an intact A horizon exists within the HBGS as a result of the HBPP's installation (ca. 1963), subsequent upgrades, and maintenance. In 2008 isolated flakes, cores, and historic period artifacts were observed within 50-100 ft. of the HBGS; however it was determined that these artifacts were situated in a highly disturbed context that retained no integrity (Helton 2011). Although it has been determined I-104B is likely a highly disturbed context, this project will require a cultural tailboard due to the presence of buried isolated artifacts in the immediate vicinity.

Prior to starting any work at I-104B at the HBGS all PG&E employees and contractors must receive training on environmental and cultural conditions and requirements applicable to this construction activity location. If additional crewmembers arrive later in the job, they must go through the training prior to beginning work. Training will include a discussion of the avoidance and minimization measures that must be implemented as presented in this RTC.

In summary:

- Cultural resources investigations are complete for project component I-104I-5B. This area is clear of cultural resources and, barring unanticipated discovery, can proceed without any foreseeable impact.
- Project component I-104J requires additional study, site recording, and reporting. At project component I-104K-6A a DPR 523 form will be completed for Hill Road (PGE-I104K-01).
- Project component I-104K-6B requires a cultural resources tailboard be given by a qualified cultural resource specialist and that a cultural monitor is present for all ground disturbing activities.
- Project component I-104B requires a cultural resources tailboard be given by a qualified cultural resource specialist.

Protocol:

If cultural resources are identified during any of the construction activities associated with project I-104 the procedures listed below should be followed:

Unanticipated Discovery

If any new cultural resources are located during project activities, Best Management Practice 25 should be implemented, which includes halting all work in the vicinity of the resource and immediately notifying a PG&E Cultural Resources Specialist. Prehistoric resources that may be identified include, but are not limited to, concentrations of stone tools and manufacturing debris made of obsidian, basalt and



other stone materials, milling equipment such as bedrock mortars, portable mortars, and pestles and locally darkened soils (midden) that may contain dietary remains such as shell and bone, as well as human remains. Historic resources that may be identified include, but are not limited to small cemeteries or burial plots, structural foundations, cabin pads, cans with soldered seams or tops, and bottles or fragments of clear and colored glass.

Human Remains

Section 7050 of the California Health and Safety Code states that it is a misdemeanor to knowingly disturb a human burial. If human remains are encountered during any Project-related activity, all work should halt in that vicinity immediately. A PG&E Cultural Resources Specialist should be contacted to evaluate the situation before the county coroner is contacted. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of such identification.

Starla Lane
Cultural Resource Specialist, Associate
Environmental Management- Gas Transmission
Pacific Gas & Electric Company

Attachments

- Attachment 1. Figures
- Attachment 2. Native American Consultation
- Attachment 3. Photographic Documentation

References

Helton, Clint

- 2011 Cultural Resources Monitoring Report, Humboldt Bay Generating Station, Humboldt County, California (06-AFC-07). Prepared for the California Energy Commission by CH2M Hill. On file at Pacific Gas and Electric, San Ramon, CA.

Kellawan, Rebecca

- 2014 Cultural Resources Study of the PG&E Hydrostatic Test Segment T-326-14, on Line 126b, MP0.00-10.57, Humboldt County, California. Prepared for PG&E by Far Western Anthropological Research Group, Inc. On file at Pacific Gas and Electric, San Ramon, CA.

NETR Online



*Pacific Gas and
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2016 Historic Aerials. Electronic Resource accessed March 16th, 2016, at <http://www.historicaerials.com/>.

USGS

1944 *Fortuna Topographic Quadrangle Map, California*. 1:62,500. Reston, VA.

Wisely, Justin

2014 Cultural Resources Constraints Report: 2014 Hydrotest Segment T-374-14. Prepared for PG&E by Far Western Anthropological Research Group, Inc. On file at Pacific Gas and Electric, San Ramon, CA.

Zalarvis-Chase, Dimitra

2011 Cultural Resources Compliance Review for the Humboldt Bay Power Plant Decommissioning Project, Humboldt County, CA. Prepared for PG&E by Zalarvis-Chase on behalf of CH2M Hill. On file at Pacific Gas and Electric, San Ramon, CA.

Attachment 1: Figures

Included in file for CDP 9-16-0379



June 3, 2016

**Addendum: Cultural Review for PG&E Projects I-104I-5B, I-104J, I-104K-6A, I-104K-6B, and I-104B
along Line 177A and Line 189, Humboldt County**

This Addendum updates efforts to document cultural resource PGE-I104K-01, which is located within the Area of Potential Effect (APE) for project I-104K-6A. PGE-I104K-01, also known as Hill Road, was previously identified through archival research as a historic period cultural resource (Lane 2016). Upon its identification as a previously undocumented cultural resource intersecting the APE of I-104K-6A, PG&E retained North State Resources, Inc. (NSR) to document PGE-I104K-01 (Hill Road) and provide further cultural assessment. On April 13th, 2016, NSR cultural resource specialist Brian Ludwig, Ph.D., inspected project location I-104K-6A. PGE-I104K-01 (Hill Road) was documented on a DPR 523 form (Attachment 1) and the following assessment was provided (Ludwig 2016):

This two-lane asphalt paved road [Hill Road/PGE-I104K-01] extends from Exit 700 on Highway 101 northeast for approximately 0.75 mile. Hill Road (also designated as South Broadway) passes a commercial/industrial complex at the south end adjacent to Purdue Drive and ends at commercial and industrial buildings at Humboldt Hill Road in the north (see Attachment 1). Prior to the 1960s (exact date uncertain), Hill Road was part of the Highway 101 alignment but was eventually bypassed and shifted roles from being part of the main coastal north-south artery to a local service and access road. The 1959 Field's Landing USGS quadrangle map shows the present-day Hill Road alignment as part of Highway 101. The Hill Road alignment is also depicted on the 1944 USGS Field's Landing quadrangle map and it can be seen on aerial photographs from 1940.

Disturbances proposed for the project on Hill Road include the excavation of two bell holes. Although these excavations would affect the integrity of the paving and temporarily restrict motor vehicle traffic, they would have no effects on the historical setting or integrity of the roadway.

Construction activities at I-104K-6A will not affect the location, design, setting, materials, workmanship, feeling or association of PGE-I104K-01 (Hill Road). This historic period cultural resource will not be demolished, destroyed, relocated or altered such that the significance will be impaired.

Based on the above information, it has been determined that PGE-I104K-01 (Hill Road) will not be impacted by project I-104K-6A activities.

Starla Lane
Cultural Resource Specialist, Associate
Environmental Management- Gas Transmission
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Attachments

Attachment 1. PGE-I104K-01 (Hill Road) DPR 523 Form



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References

Lane, Starla

2016 Cultural Review for PG&E Projects I-104I-5B, I-104J, I-104K-6A, I-104K-6B, and I-104B along Line 177A and Line 189, Humboldt County (April 15, 2016). Prepared for California Coastal Commission by Pacific Gas and Electric. On file at Pacific Gas and Electric, San Ramon.

Ludwig, Brian

2016 Re: Extended Phase I Cultural Resources Investigation for the Pacific Gas & Electric Company Line 189 In-Line Inspection Project at the I-104J and I-104K-6A Project Locations in the City of Eureka, Humboldt County, California (NSR No. 16.104.004). Prepared for Pacific Gas and Electric by North State Resources, Inc. On file at Pacific Gas and Electric, San Ramon.

Other Listings
Review Code

Reviewer

Date

Page 1 of 3

*Resource Name or #: PGE-I104K-01

P1. Other Identifier: Hill Road

***P2. Location:** Not for Publication Unrestricted

***a. County:** Humboldt

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Fields Landing **Date:** 1972 **T** 4 **N** **R** 1 **W**; SE ¼ and SW ¼ of **Sec** 8; NW ¼ of **Sec** 17 Humboldt **B.M.**

c. Address: Humboldt Hill Road

City: Eureka, CA

Zip: 95503

d. UTM: Zone: 10; NAD 83 - South end at Highway 101: 397887 mE; 4510200 mN, north end at Humboldt Hill Road: 398772 mE; 4510939 mN (G.P.S.)

e. Other Locational Data: Elevation: 40 ft. amsl at north end of the road, 10 ft. amsl at south end of the road at Highway 101.

From Highway 101 north take Exit 700 and go left onto South Broadway – also known as Hill Road. Hill Road/ South Broadway extends to the north/ northeast from Highway 101 to Humboldt Hill Road – a distance of approximately .75 mile.

***P3a. Description:**

Paved two-lane road extending from Exit 700 on Highway 101 to the northeast for a distance of approximately .75 mile. The road passes a commercial/ industrial complex at the south end adjacent to Purdue Drive and ends at commercial and industrial buildings at Humboldt Hill Road in the north. Prior to the 1960s (exact date uncertain), Hill Road was part of the Highway 101 alignment but it was eventually bypassed and it shifted roles from part of the main coastal north-south artery to a local service and access road. The 1959 Field's Landing USGS quadrangle shows the present-day Hill Road alignment as part of Highway 101. The Hill Road alignment is also depicted on the 1944 USGS Field's Landing quadrangle and it can be seen on aerial photographs from 1940.

***P3b. Resource Attributes:** HP37 Highway/trail

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)



P5b. Description of Photo:

View to the north along Hill Road near the intersection with Hwy. 101

***P6. Date Constructed/Age and Sources:** Historic

Prehistoric Both

***P7. Owner and Address:**

n/ a

***P8. Recorded by:**

Brian Ludwig, Ph.D.
North State Resources, Inc.
2020 L St., Ste. 340,
Sacramento CA, 95811

***P9. Date Recorded:**

April 13, 2016

***P10. Survey Type:**

Extended survey/Phase I

***P11. Report Citation:** Lane, Starla

2016. Cultural Review for PG&E
Projects I-104B, I-104I-5B, I-104J, I-

104K-6A, and I-104K-6B along Line 177A and Line 189, Humboldt County. Pacific Gas and Electric Company, San Ramon, CA

***Attachments:** NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

CONTINUATION SHEET

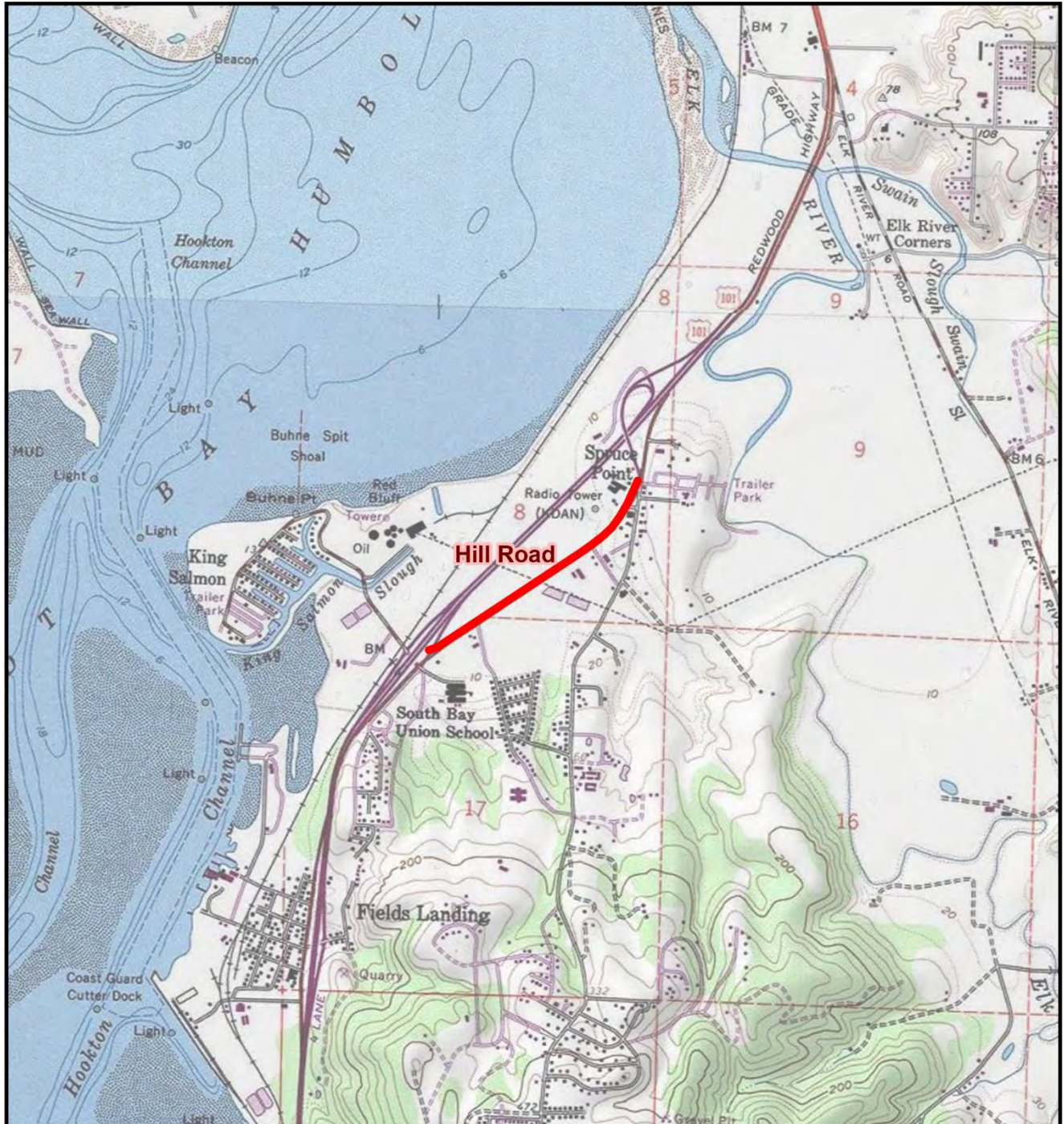
*Recorded by: B. Ludwig, North State Resources, Inc. *Date: April 13, 2016 Continuation Update



Hill Road: View to north at northern end near Humboldt Hill Road – commercial complex on right (Boyd's Auto Repair – 5785 South Broadway [Hill Road]).



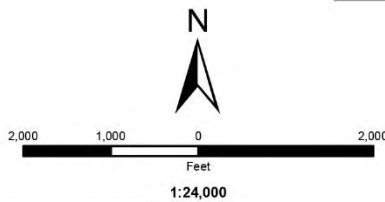
Hill Road: View to south from Boyd's Auto Repair at 5785 South Broadway [Hill Road] (entrance at left).



 Hill Road

Public Land Survey:
T04N, R01W, Sec. 8, 17

USGS 7.5 Quad:
Fields Landing 1972



Study Area Location



Humboldt County, California