DOCKETED

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Project Title:	Humboldt Bay Generating Station - Compliance
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Document Title:	Humboldt Bay Generating Station - Petition for Project Modification
Description:	Modification of Fiber Optic Communications System, Relocation of Network Communications System, Installation of New Microwave Dish and Monopole, and Re-Routing of Existing Water Line Segment
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Organization:	Pacific Gas and Electric Company
Submitter Role:	Public
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Pacific Gas and Electric Company

Humboldt Bay Generating Station
1000 King Salmon Ave.
Eureka, CA 95503-6859

HBGS-CEC-124

May 5, 2016

Mr. Jonathan Fong
Compliance Project Manager
California Energy Commission
Energy Facilities Siting and Compliance Division
1516 Ninth Street, MS 2000
Sacramento, California 95814-5512

Subject: Humboldt Bay Generating Station - Petition for Project Modification (06-AFC-07C), Modification of Fiber Optic Communications System, Relocation of Network Communications System, Installation of New Microwave Dish and Monopole, and Re-Routing of Existing Water Line Segment

Dear Mr. Fong:

Enclosed please find a petition for project modification for the Humboldt Bay Generating Station (HBGS), in compliance with Section 1769 of the California Energy Commission Siting Regulations. The purpose of this petition is to allow for the modification of the fiber optic communications system, relocation of the network communications system, installation of a new microwave dish and monopole, and re-routing of an existing water line segment.

The amendment application fee of $5,000 is being mailed to you under separate cover.

Should you have any questions, please contact Scott Washington at 707-269-1810 or Susan Strachan at 530-757-7038.

Sincerely,

Chuck Holm
Humboldt Bay Generating Station Manager

attachment

Pacific Gas and Electric Company
Humboldt Bay Generating Station (06-AFC-7C)

Petition for Project Modifications – Modification of Fiber Optic Communications System, Relocation of Network Communications System, Installation of New Microwave Dish and Monopole, and Re-Routing of Existing Water Line Segment

Pursuant to the California Energy Commission (CEC) Siting Regulations (California Code of Regulations Title 20, Section 1769, Post Certification Amendments and Changes), Pacific Gas and Electric Company (PG&E) hereby submits this petition for the Humboldt Bay Generating Station (HBGS) (06-AFC-7C) to make the following project modifications:

- Modification to the existing fiber optic communications system by installing new fiber optic cables and relocating PG&E's network communications system from the Humboldt Bay Power Plant (HBPP) to the HBGS
- Installation of a new microwave dish and monopole
- Re-routing of a segment of the existing HBGS domestic water line

PG&E believes the proposed modifications listed above constitute an insignificant project change because they will not result in the modification to any conditions of certification or cause the facility to be out of compliance with applicable laws, ordinances, regulations, and standards (LORS).

Below is the information required by Section 1769 for the project modifications addressed in this Petition.

1. Section 1769 (a)(1)(A) Provide a complete description of the proposed modification, including new language for any conditions that will be affected.

Modifications to Fiber Optic Communications System

The HBGS fiber optic communications system includes both telephone and data services that support the plant's daily operations. The data services provided via the fiber optic cable remotely monitor and control HBGS operations. This ensures safe and reliable operation of the energy supply, including protection and automation of the electric transmission grid.

HBGS's existing communications system is provided from the HBPP through an interconnection with an aboveground fiber optic cable located on King Salmon Avenue. The existing fiber optic cable then transitions underground and extends through the HBPP site and interconnects with the existing HBGS communications room within its Administration Building. The fiber optic cable and network equipment also provides communication service for HBPP decommissioning activities and the ongoing operations of the ISFSI.

Decommissioning activities at HBPP will disrupt the existing fiber optic communications system since a portion of the existing fiber optic cable will be removed to accommodate the removal of an underground pipeline. A new fiber optic cable system must be installed to prevent disruption of critical network

connectivity for HBGS and to ensure that the HBGS can continue to transmit power to the grid. The new communications system will provide ongoing service to the ISFSI and serve HBPP during decommissioning and site restoration until those activities are complete. In addition to installing the new fiber optic cable, PG&E intends to relocate the network communications services from HBPP to the HBGS communications room to serve the HBGS, ISFSI operations, and HBPP decommissioning/restoration. The HBGS communications room will thus become the central communications node for HBGS and HBPP.
The modifications to the existing fiber optic communications system will include the installation of two new fiber optic cables, placed in separate 4-inch conduits within the same trench. One cable will serve HBGS and the other cable will serve HBPP decommissioning/restoration and ISFSI operations.

PG&E is seeking approval to install a new fiber optic communications system for HBGS which will interconnect with the existing aboveground fiber optic cable at King Salmon Avenue and extend underground within the Alpha Road corridor as depicted in Figure 1 (see cross-hatched area). Alpha Road serves as the access road for HBPP decommissioning and HBGS and was built to accommodate HBGS heavy loads (transformers and engines) during construction. The approximately 26-foot wide corridor includes the Alpha Road subgrade heavy haul structural road plus approximately three feet on each side. The cables and conduits would primarily be located on the road edge within the corridor. However, the route could cross from one side of the road to the other. The specific route would be determined prior to construction.

This routing flexibility is necessary due to another project PG&E currently has adjacent to Alpha Road. Specifically, as part of PG&E's wetland mitigation and regulatory compliance obligations related to the HBPP Canal Remediation Project (CDP 9-13-0621), a wetland area will be created where the HBPP intake canal is currently located. This wetland area will extend to the Alpha Road subgrade heavy haul road. Figure 2 is a general depiction of the wetland to be created. In addition, as part of this wetland creation project, a segment of the HBGS domestic water line may require re-routing (see discussion below). Until the detailed design of the wetland mitigation and re-routing of the HBGS water line (if necessary) is determined, the specific route of the fiber optic cables and conduits within the corridor cannot be precisely determined. As discussed in Section 5 below, there will be no significant environmental impacts regardless of where within the corridor the cables and conduits will be located.

The proposed fiber optic cable/conduit corridor extends from the HBGS communications room approximately 1,400 feet along Alpha Road to King Salmon Avenue. A pull box approximately 3 feet wide by 5 feet long by 3 feet deep will be installed at the beginning of the corridor near the HBGS communications room. PG&E is requesting approval of two options for the pull box location (see Figure 1). The final choice among these alternatives will be determined prior to construction. One of the alternative locations near the HBGS communications room is located outside of the wetlands (Option 1). The other is in a developed (paved) area near the HBGS administration building (Option 2).

On the east side of the fiber optic corridor, there are Coastal Commission and U.S. Army Corps of Engineers (USACE)-jurisdictional wetlands (see Figure 1). If the cables, conduits and pull box are located in the areas near the wetlands, the wetlands will be avoided and a biological monitor on-site during construction in these areas. The wetlands will also be protected with flagging or fencing to preclude equipment and personnel from entering the area. Some of the wetlands are located outside of the HBGS fence line. No construction will occur outside of the HBGS fenced boundary.

On the west side of the corridor, within the intake canal fencing, there is coastal scrub habitat and a stand of sea-watch (*Angelica lucida*), a special-status plant species.[1] If the fiber optic cables and conduits are installed on the west side of the corridor, this plant will be avoided because construction would occur outside of the fenced area.

The cables and conduits will be placed in the same trench within the Alpha Road corridor. The trench will be approximately 3 feet deep and 1 foot wide. Stormwater culverts crossing perpendicular to the road, including the culvert for an intermittently flowing drainage ditch, will be avoided by installing the cables and conduits above or below the culverts.

At King Salmon Avenue, the fiber optic cables will interconnect with an existing utility pole located on the east side of the corridor at the intersection of King Salmon Avenue and Alpha Road. A pull box will be installed at one of two locations near the utility pole at King Salmon Avenue (see Figure 1). The fiber optic cables will transition aboveground to the existing pole, and the HBGS cable will interconnect with an existing AT&T overhead fiber optic cable on the utility pole. Both the existing pole and the two pull box locations are situated in previously disturbed, non-native vegetation comprised primarily of annual grasses that are regularly mowed.

At the existing utility pole the fiber optic cable supporting HBPP will continue overhead (with several other existing overhead lines) heading north-northwest, paralleling King Salmon Avenue, until it reaches an existing utility pole near the west end of Bravo Road (see Figure 1). At this point it is anticipated that the cable will transition underground through existing conduit. The new fiber optic cable will then be pulled through the existing conduit located along Bravo Road for approximately 725 feet in a northeasterly direction to a point near the existing security checkpoint. The route will then likely head north where an approximately 70-foot-long segment of new conduit will be installed within a concrete and paved area. The new conduit will then interconnect with existing conduit which runs adjacent to the western side of the HBPP Administration Building. Here, the fiber optic cable will interconnect with HBPP communications equipment that will be located in the building to support decommissioning and restoration, and the ISFSI.

Construction equipment, which are anticipated to consist of an excavator and a dump truck, will be located within Alpha Road so that adjacent wetlands on the east side of the road and the population of sea-watch located on the west side of the road will be avoided. The road will remain open (with appropriate traffic control) for HBPP decommissioning and HBGS use during construction. There will be minor, temporary impacts to the non-native vegetation within the corridor from construction equipment. However once construction is complete, impacted areas will be restored and reseeded, as needed. Construction of the new fiber optic cables and conduits is anticipated to take approximately two weeks and require a workforce of approximately 4 to 5 people.

The CEC has jurisdiction over the construction activities associated with the installation of the new cable at HBGS. However, the existing HBPP fiber optic cable is under the jurisdiction of the California Coastal Commission from the intersection of King Salmon Avenue and Alpha Road to where the cable interconnects to the HBPP communications room.

[1] Sea-watch (*Angelica lucida*) is a native perennial herb in the Apiaceae family that has a California Rare Plant Rank (CRPR) of 4.2 (i.e., plants of limited distribution; moderately threated in California). It is limited to the North Coast specifically Humboldt, Mendocino, and Del Norte counties from 0–50 m (0–164 ft) above sea level. Sea-watch typically occurs in coastal bluff scrub, coastal dunes, coastal scrub, and coastal salt marshes and blooms from May to September. At the HBPP, plants commonly associated with sea-watch include coyote brush *(Baccharis pilularis*), seaside aster *(Symphyotrichum chilense*), and San Francisco rush (*Juncus lescurii*).

Relocation of Network Communications System

PG&E intends to relocate the network communications services from the existing HBPP Communications Building to the communications room in the HBGS Administration Building. The HBGS communications room will thus become the central communications node for HBGS and HBPP. New and upgraded equipment will be added to HBGS to provide service to HBGS, HBPP decommissioning and restoration activities, and the ISFSI. The relocation of the network communications services will consist of installing fiber optic termination, modem, and data network routing and switching equipment into the HBGS communications room. The equipment will be installed onto existing equipment racks and will not involve any building construction. Relocation of the communication equipment will not require any changes to any Conditions of Certification.

Installation of New Microwave Dish and Monopole

A new microwave dish and monopole will be installed in a graveled area approximately 15 feet from the HBGS Administration Building, as shown on Figure 1. The new microwave dish will provide communications system redundancy and serve as a backup to the fiber optic communications system. The microwave dish will be 10 feet in diameter, mounted on a new 40-foot-tall monopole. The centerline of the microwave dish will be at the 30-foot height of the pole. Two 5-foot-long Omni antennas, currently located on the south side of the HBGS Administration Building, will be removed and mounted on top of the monopole. These antennas are for two-way radios used by HBGS and HBPP personnel. The foundation for the monopole and dish will cover an area approximately 10 feet by 10 feet on the surface and be approximately 10 feet deep. Given the depth of the foundation, it is possible that groundwater will be encountered during the excavation work. Any groundwater will be disposed of using appropriate Best Management Practices in accordance with the HBGS Industrial General Permit, which allows for authorized non-stormwater discharge of uncontaminated water. Installation of the new microwave dish and monopole will not require changes to any Conditions of Certification.

Re-Routing of Existing HBGS Water Line Segment

As stated above, as part of PG&E's wetland mitigation and regulatory compliance obligations related to its Canal Remediation Project, a wetland area will be created where the HBPP intake canal is currently located. A segment of the existing HBGS 6-inch-diameter domestic water line may require re-routing if it conflicts with the final design of the wetland creation. If the line is to be re-routed, an approximately 440-foot-long segment would be installed a maximum of approximately 50 to 75 feet to the east. The existing line would be removed. PG&E is seeking approval to re-route the water line segment, if necessary, so there is no construction delay if it is determined the re-routing is necessary.

The new water line segment would be located on the east edge of the Alpha Road subgrade heavy-haul structural road, as shown in Figure 1. Vegetation adjacent to Alpha Road on the east side is comprised primarily of non-native annual grasses that are regularly mowed. The new water line segment would be installed in a trench approximately 2 feet wide with a maximum depth of approximately 5 feet. The construction equipment would be limited to Alpha Road. Approximately 6 workers would be required for the one-month-long construction effort. The water line construction would require the use of a backhoe, excavator, and two trucks to remove the spoils. Section 5 provides the environmental protection measures that would be taken during construction if the water line is to be re-routed.

2. Section 1769 (a)(1)(B) Provide a discussion of the necessity for the proposed modification

Modifications to Fiber Optic Communications System, Relocation of Network Communications System, and Installation of New Microwave Dish

These modifications are necessary to enable the HBGS facility to communicate with the wider PG&E network. The data services provided via the new fiber optic communications system allow PG&E to remotely monitor and control HBGS operations. This ensures safe and reliable operation of the energy supply, including protection and automation of the electric transmission grid. Installation of the new fiber optic communication system is necessary to replace the existing fiber optic network that will be adversely affected by decommissioning activities at HBPP. The new fiber route will prevent disruption of critical network connectivity and assure that the HBGS can transmit power to the grid. Relocation of the network communication system from HBPP to HBGS is necessary to ensure reliable communication service to HBGS, as well as HBPP decommissioning/restoration activities and ISFSI operations. Given the important need for the HBGS facility to communicate with the wider PG&E network, as stated above, installation of the new microwave dish is necessary since it provides redundancy in case the fiber optic communications system fails.

Re-Routing of Existing HBGS Water Line Segment

As part of PG&E's wetland mitigation and regulatory compliance obligations related to the HBPP Canal Remediation Project, a wetland area will be created where the HBPP intake canal is currently located. An approximately 440-foot-long segment of the existing HBGS water line may require re-routing to accommodate the new wetland. The need to re-route the water line will be based upon the final design of the wetland.

3. Section 1769 (a)(1)(C) - If the modification is based on information that was known by the petitioner during the certification proceeding, provide an explanation why the issue was not raised at that time

Although during the HBGS certification proceeding it was known that HBPP would be decommissioned, the details associated with impacts to the existing fiber optic cable, relocation of the communications equipment to the HBGS, installation of a new microwave dish and pole, and re-routing of the water line segment were not known.

4. Section 1769 (a)(1)(D) - If the project modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, provide an explanation of why the change should be permitted

The proposed modifications do not undermine the assumptions, rationale, findings, or other basis of the Final Decision for the HBGS. They will support and improve an essential connection between the HBGS and the PG&E electrical system network and ensure compliance with the HBPP decommissioning plan. These aims are consistent with the final decision.

5. Section 1769 (a)(1)(E) – Provide an analysis of the impacts the modification may have on the environment and proposed measures to mitigate any significant adverse impacts

Modifications to Fiber Optic Communications System

No significant and adverse environmental impacts are anticipated as a result of the installation of the fiber optic communications system. The corridor for the fiber optic cables and conduits avoids wetlands located

on the east side of the corridor and a special-status plant species located on the west side of the corridor, as described in more detail below.

At the northern end of the route corridor where the HBGS communications room is located, the vegetation on the east side of Alpha Road consists of landscape vegetation, non-native annual grasses, and Coastal Commission and USACE-jurisdictional wetlands. These wetlands are identified in Figure 1. If the cables and conduits are installed on the east side of the corridor, the wetlands will be avoided and there will be a biological monitor on-site in the areas identified in Figure 1. The wetlands will be flagged or fenced to preclude equipment and personnel from entering the area. Some of the wetlands are located outside of the HBGS fence line. No construction will occur outside of the HBGS fenced boundary.

Any impacts to the non-native vegetation will be temporary. Once construction is complete the area will be restored and reseeded, as needed.

On the west side of the corridor, the vegetation adjacent to the road is regularly mowed and consists primarily of non-native annual grasses. There will be minor, temporary impacts to this non-native vegetation during construction if the cables and conduits are installed on the west side of the corridor. However once construction is complete, impacted areas will be restored and reseeded, as needed. In addition, the coastal scrub habitat and localized occurrences of sea-watch, a special status plant species found adjacent to the corridor within the fenced area of the intake canal, will be avoided. There will be no construction on that side of the fenced area.

With the excavation of the approximately 3-foot-deep trench, it is possible that a soil horizon known as Horizon A that is culturally sensitive could be encountered. Given this, the CEC-approved Cultural Resources Specialist or Cultural Resources Monitor will monitor ground-disturbing activities in native soils, pursuant to Condition CUL-6. In addition, the following environmental protection measures will also be taken during construction:

- Worker Environmental Awareness Training will be provided to the construction workers prior to commencing work.
- The CEC-approved Designated Biologist or Biological Monitor will be present where construction activities in the areas identified in Figure 1. For construction in other areas, the Designated Biologist and/or Biological Monitor will be on-call.
- The wetlands adjacent to the route, as shown in Figure 1, will be marked and flagged/fenced to ensure they are avoided.
- A pre-construction nesting bird survey will be conducted by the CEC-approved Designated Biologist or Biological Monitor.
- Best Management Practices will be employed to ensure stormwater run-off from construction will not affect adjacent areas.
- Vegetated areas affected by construction will be restored and reseeded, as needed.

Relocation of Network Communications System

Relocation of the network communications system will consist of installing fiber optic termination, modem and data network routing and switching equipment into the HBGS communications room. The equipment will be installed onto existing equipment racks and will not involve any building construction. Therefore, no

significant and adverse environmental impacts are anticipated with the relocation of the network communications system.

Installation of New Microwave Dish and Monopole

No significant and adverse environmental impacts would occur as a result of the installation of the new microwave dish. The dish and monopole will be situated in a previously disturbed area adjacent to the HBGS Administration Building. However, given the location of the monopole and the depth of the foundation excavation (approximately 10 feet), it is possible that culturally sensitive Soil Horizon A could be encountered. Given this, the CEC-approved Cultural Resources Specialist or Cultural Resources Monitor will monitor ground disturbing activities in native soils, pursuant to Condition CUL-6.

If groundwater is encountered during excavation of the foundation, it will be disposed of using appropriate Best Management Practices in accordance with the HBGS Industrial General Permit which allows for authorized non-stormwater discharge of uncontaminated water.

The microwave monopole will be made of galvanized steel and the microwave dish will be grey with a white cover. The 45-foot combined height of the monopole and relocated antennas will be consistent in appearance with other similarly sized or taller structures on the HBGS site. Table 1 provides the dimensions of the visible structures at the HBGS.

Table 1

Major HBGS Publicly Visible Structures

Project Components	Number of Units	Approximate Length, Width, Diameter	Approximate Height
Exhaust Stacks	10	7-foot diameter	100 feet
Engine Hall	1	90-feet x 230-feet	45 feet
Transmission poles	3	31-foot diameter	78 feet
Circuit Breaker	1	36-feet x 1-feet	50 feet
Circuit Breaker	2	26-feet x 1-feet	36 feet
Diesel Tank	1	62-foot diameter	46 feet
Radiators	1	186-feet x 87-feet	25 feet

Source: California Energy Commission, Final Staff Assessment Humboldt Bay Repowering Project[2], May 2008.

As shown in Table 1, there are several existing plant structures of comparable height and diameter as the proposed microwave dish and monopole. In particular, the two sets of bundled HBGS stacks north of the proposed microwave dish and monopole location are taller than the microwave monopole. In addition, the diameter of the stacks is only slightly smaller than the diameter of the microwave dish. Immediately south of the proposed microwave dish and monopole location are the three transmission poles, which are taller

[2] The HBGS was formerly referred to as the Humboldt Bay Repowering Project. The name change was approved by the CEC on December 30, 2008.

than the microwave monopole. The galvanized steel monopole would be similar to the adjacent galvanized steel transmission towers. The appearance of the microwave dish and pole is in keeping with the industrial nature of the site and would not result in a visual impact.

Re-Routing of Existing HBGS Water Line Segment

No significant adverse environmental impacts are anticipated to result from the installation of an approximately 440-foot segment of the existing HBGS water line, if it is determined re-routing of the existing line is necessary. Vegetation adjacent to where the line would be installed consists primarily of non-native annual grasses that are regularly mowed.

Given the route location along Alpha Road and the excavation of the 5-foot-deep trench, it is possible that the culturally sensitive Soil Horizon-A could be encountered. Given this, the CEC-approved Cultural Resources Specialist or Cultural Resources Monitor will monitor ground-disturbing activities in native soils, pursuant to Condition CUL-6. In addition, the following environmental protection measures will also be taken during construction:

- Worker Environmental Awareness Training will be provided to the construction workers prior to commencing work.
- The CEC-approved Designated Biologist or Biological Monitor will be present where construction activities occur near wetlands. For construction in other areas, the Designated Biologist and/or Biological Monitor will be on-call.
- The wetlands adjacent to the route, as shown in Figure 1, will be marked and flagged/fenced to ensure they are avoided.
- A pre-construction nesting bird survey will be conducted by the CEC-approved Designated Biologist or Biological Monitor.
- Best Management Practices will be employed to ensure stormwater run-off from construction will not affect adjacent areas.
- Vegetated areas affected by construction will be restored and reseeded, as needed.

6. Section 1769 (a)(1)(F) Provide a discussion of the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards

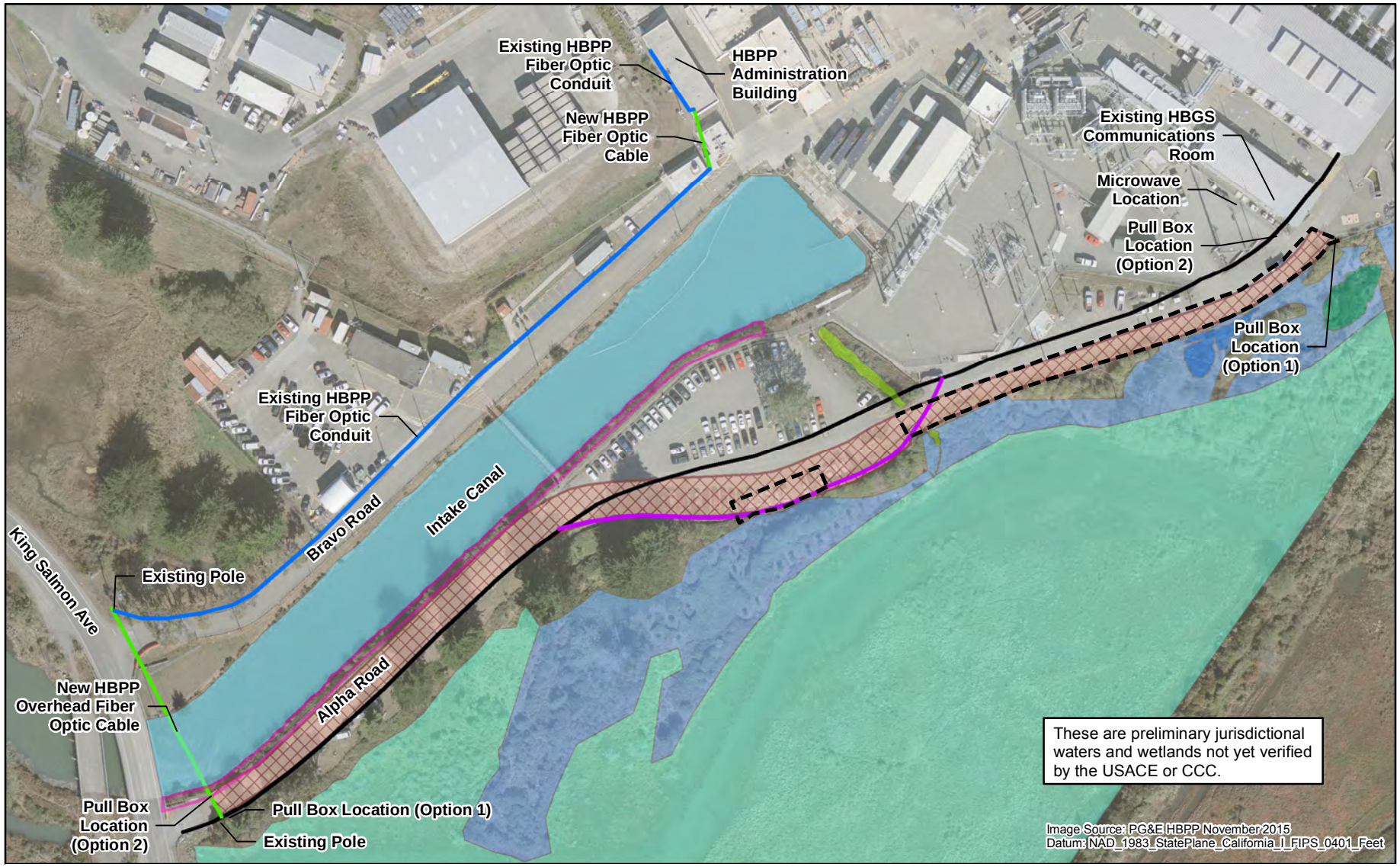
The proposed modification to install the fiber optic cables and conduit, relocate the communications equipment, install of the microwave dish and pole, and re-route a water line segment will not affect the ability of the HBGS to comply with applicable LORS.

7. Section 1769 (a)(1)(G) and (H) – Provide a discussion of how the modification affects the public and a discussion of the potential effect on nearby property owners, the public and parties in the application proceedings.

The proposed modification to install the fiber optic cables and conduit, relocate the communications equipment, install of the microwave dish and pole, and re-route a water line segment will have no impact on the public, nearby property owners, and parties to the proceeding. All construction activity will occur within property owned by PG&E.

8. Section 1769 (a)(1)(H) - Provide a list of property owners potentially affected by the modification

Attachment 1 includes the list of property owners within 1,000 feet of the HBGS site.



LEGEND

- Existing HBPP Fiber Optic Conduit
- New HBPP Fiber Optic Cable
- Water Line (Existing)
- New Water Line (If Necessary)
- New HBGS and HBPP Fiber Optic Cable Corridor
- Areas Where Biological Monitoring Will Occur, Wetlands Flagged/Fenced
- Coastal Commission Wetland
- Seasonally Flooded Wetland
- Semipermanently Flooded Wetland
- Estuarine Persistent Wetland
- Waters
- Intermittently Flowing Drainage Ditch
- Location of Special-status Plant – Sea-watch (Angelica lucida)

0 75 150
Feet

N

FIGURE 1
Proposed New Fiber Optic Line
PG&E Humboldt Bay Generating Station
Eureka, California

HBPP MITIGATION AND RESTORATION CONCEPTUAL DESIGN

Figure 2

Proposed Vegetation Types

- Northern coastal salt marsh
- Mudflat
- Reef habitat
- Eelgrass benches
- Deep water
- Swale
- Wetland - rushes
- Wetland - brackish
- Stormwater basin
- Coastal prairie
- Managed native grasses
- Coastal scrub
- Riparian scrub

N

Map Imagery:
ESRI World Service
and PG&E 2014

Stillwater Sciences

0 5 10 20 Meters

0 15 30 60 Feet

ATTACHMENT 1

Property Owners Within 1,000 Feet of the HBGS Site

APN 305-141-005
Humboldt Bay Harbor Recreational & Conservation District
PO Box 1030
Eureka, CA 95502

APN 305-131-013, 016 & 038
Jim & Claire Hoff
3831 Turtle Creek Blvd – 20C
Dallas, Tx 75219

APN 305-131-003
North Coast Railroad Authority
419 Talmage Road, Ste M
Ukiah, CA 95482

APN 305-131-026
Humboldt Community Services District
P.O. Box 158
Cutten, CA 95534