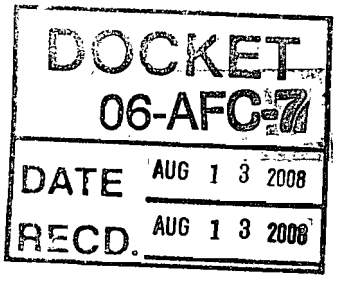
BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION FOR THE HUMBOLDT BAY REPOWERING PROJECT BY PACIFIC GAS AND ELECTRIC COMPANY	**DOCKET NO. 06-AFC-7**

PACIFIC GAS & ELECTRIC COMPANY'S BIORETENTION AREA SUBMITTAL

August 13, 2008



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August 13, 2008

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APPLICATION FOR CERTIFICATION FOR THE HUMBOLDT BAY REPOWERING PROJECT BY PACIFIC GAS AND ELECTRIC COMPANY	**DOCKET NO. 06-AFC-7** **PROOF OF SERVICE**

INSTRUCTIONS: All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

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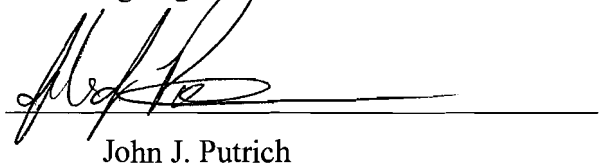
DECLARATION OF SERVICE

I, John J. Putrich, declare that on August 13, 2008, I deposited copies of the attached Pacific Gas & Electric Company's Biorentention Area Submittal in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of the California Code of Regulations, title 20, sections 1209, 1209.5 and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.



John J. Putrich

Background

Based on discussions with the North Coast Regional Water Quality Control Board (NCRWQCB) regarding the 401 Water Quality Certification for the Humboldt Bay Repowering Project (HBRP), the NCRWQCB staff informed PG&E that its post-construction storm water controls must include low-impact design (LID) techniques. LIDs are intended to help maintain a project site's pre-development runoff rates and volumes by for example, reducing the amount of impervious surface and increasing storm water filtration on-site. LIDs include for example, bioretention facilities, grass swales and channels, vegetated rooftops, rain barrels, cisterns, vegetated filter strips, and permeable pavements.

Although the proposed HBRP storm water management system includes use of a bioswale after the water exits a treatment device, the NCRWQCB stated that LIDs must be used prior to discharge to the project's storm water treatment device. As a result, PG&E is proposing to construct a bioretention area to be used as its primary storm water treatment system. Graveled areas on the plant site will also be designed to ensure sufficient filtration of storm water.

Bioretention Area

The bioretention area will be located on the east side of the project site, south of the liquid fuel tank containment area (Figure 1). The bioretention area has been sized to the maximum foot print possible, approximately 4500 square feet (0.1 acre). This area will be elevated slightly above the surrounding grade to provide maximum storage volume and head to provide the highest infiltration rate possible. The bioretention area is designed in accordance with the guidelines presented in the EPA's Storm Water Technology Fact Sheet – Bioretention, Document No. EPA 832-F-99-012. This document can be found at http://www.epa.gov/owmitnet/mtb/biortn.pdf.

The construction of the bioretention area will consist of approximately a 6 feet- thick layer of improved soil which includes a sand drainage layer at the bottom, a planting mixture above that and a top layer of ground cover and/or mulch. A containment berm will surround the bioretention area to create a shallow (6 inch tall) ponding area and an overflow is provided to route flows exceeding the infiltration and storage capacity of the bioretention area to the secondary treatment system – a storm water filtration system. A schematic drawing of the bioretention area is included in (Figure 2).

The system will be operated such that normal, low flow rainfall events and the first flush of heavy storms will be captured in a sump and pumped into the bioretention area. A distribution/velocity dissipation flow control device will be installed to prevent erosion in the retention area. In the case of heavy extended rain periods, the anticipated amount of run-off from the plant site will exceed the infiltration rate and the storage capacity. During these periods the excess storm water from the bioretention area will be routed to the storm water filtration system. The storm water filtration system will serve as a secondary treatment system for the facility.

Biological Setting and Effects

The only environmental issue area potentially affected by the addition of the bioretention area is Biological Resources. A discussion of the potential effects, proposed mitigation, and a proposed Condition of Certification are addressed below.

The bioretention area is located within the permanent footprint of HBRP, in an area that currently supports mature landscape trees, as well as maintained grasslands that are considered wetland habitat under the jurisdiction of the California Coastal Commission (see "Wetlands and Waters of the U.S. Humboldt Bay Repowering Project," December 2007). Buhne Slough and associated wetlands occur approximately 200 feet to the southeast outside the HBRP boundary across the railroad tracks. The Humboldt Bay occurs approximately 900 feet north of the site. Existing Humboldt Bay Power Plant transmission lines and towers also occur in this area.

Although the HBRP site does not provide significant habitat for nesting birds (none were observed during biological surveys), the landscape trees and adjacent wetland habitats in Buhne Slough could provide opportunities for nesting and/or foraging of resident and/or migratory birds. Water birds and shorebirds, such as great egret (*Casmerodius albus*), snowy egret (*Egretta thula*), Canada goose (*Branta Canadensis*), mallard, gadwall (*Anas strepera*), American widgeon (*Anas americana*), killdeer (*Charadrius vociferus*), western sandpiper (*Calidris mauri*), common snipe (*Gallinago gallinago*), black phoebe (*Sayornis nigricans*),and red-winged blackbird (*Agelaius phoeniceus*) are known to forage in Buhne Slough. The biorention area could attract birds during rain events that result in ponding for several days.

To reduce the potential attraction to birds, and possibility of bird collisions with the existing transmission lines, PG&E will install screens over the biorention area to prevent bird use. These screens would cover the entire pond with ¾" mesh size with a "zipper entry" to allow easy access for maintenance of the pond (see example at http://store.birdbarrier.com/store/_StealthNetInfo.asp). The screen would be a permanent feature of the biorention area.

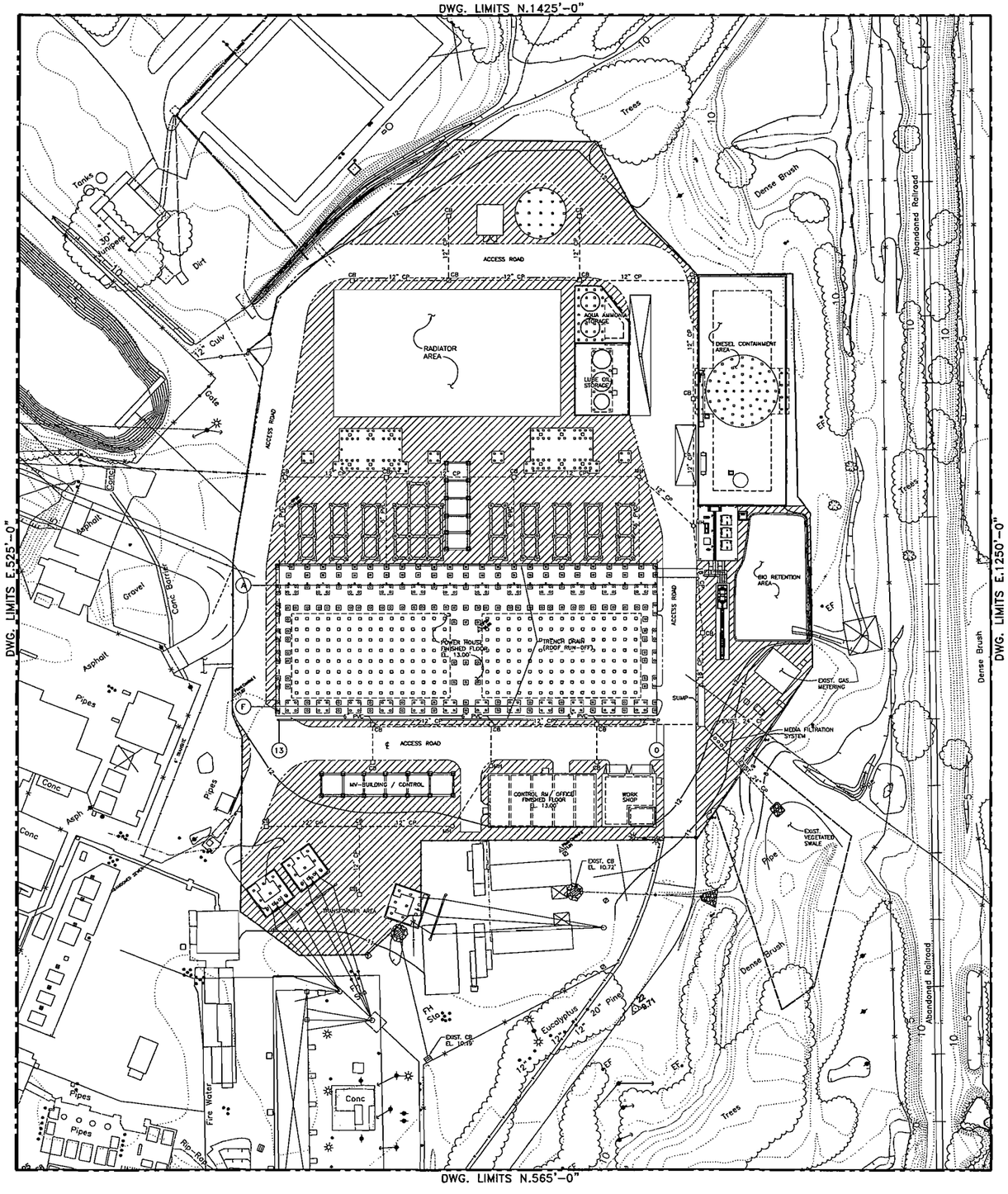
The addition of the bioretention area and bird screens would not change staff analysis or conclusions as stated in the Final Staff Assessment for the HBRP project.

Proposed Condition of Certification

To address the addition of the bird netting, PG&E proposes this following Condition of Certification:

BIO-13: The project owner shall install screens over the storm water bioretention area to prevent bird use of the area.

Verification: Within 30 days after the installation of the bird screens, the project owner shall submit photographic documentation demonstrating that the screens have been installed.



LEGEND:

CB	= NEW 3'x3' PRECAST CATCH BASIN
MH	= NEW MANHOLE W/ GRATED INLET
CP	= NEW CONCRETE PIPE STORM DRAIN
———	= NEW CONTOUR ELEVATION
———	= EXIST. CONTOUR ELEVATION
———	= FUTURE FACILITY OR ACCESS ROAD
—OH—	= OVERHEAD POWER LINE
—UG—	= UNDERGROUND ELECTRICAL
—G—	= UNDERGROUND GAS LINE
—W—	= UNDERGROUND WATER LINE
—FM—	= SEWER FORCEMAIN
— — —	= PERMIT LIMITS
//////	= GRAVEL

NOTES:

1. CATCH BASIN INLET ELEV. = 11.5' U.N.O.
2. MINIMUM SLOPE STORM DRAINS = 0.5%
3. PROJECT VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

   HORIZONTAL DATUM IS AN ESTABLISHED PLANT DATUM:

LOCATION	PLANT COORDINATE NORTH	PLANT COORDINATE EAST	NAD83 COORDINATE NORTH	NAD83 COORDINATE EAST
COL. LINE A-13	1910.00	1600.00		
PLANT CONTROL POINT 1	815.41	650.00	2160982.80	5948581.16
PLANT CONTROL POINT 2	802.97	529.55	2160737.15	5948723.75

4. EXISTING ELEVATION AND TOPOGRAPHY BASED UPON SURVEY PROVIDED BY TOMILL INC. - MAY 2006.
5. SEE DWG. NO. DAAB456769 FOR MASTER LAYOUT.

ISSUED BY:
Waldemar S. Nelson & Co.
PRELIMINARY
FOR REFERENCE ONLY
8-05-08
NOT FOR CONSTRUCTION

Source: Wartsila, Drawing DAAB745666D, 08/05/08

FIGURE 1
HBRP BIORETENTION AREA LAYOUT
HUMBOLDT BAY REPOWERING PROJECT

CH2MHILL

PO062006001SAC figure_1.ai 08/12/08 tdaus

Figure 2. HBRP Bioretention Schematic.