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February 24, 2010

Ms. Cathy Wolff-White
U.S. Department of the Interior
Bureau of Land Management
2610 Sweetwater Avenue
Lake Havasu City, Arizona 86406

Subject: Cumulative Project Footprint Update (2007-2009) for Field Work Performed in Accordance with the Programmatic Biological Assessment for the Pacific Gas and Electric Company Topock Compressor Station (Consultation Reference: AESO/SE 22410-2006-I-0333, 8 Feb 2007)

Dear Ms. Wolff-White:

This letter has been prepared as a cumulative footprint summary of investigative and remedial activities, performed in accordance with the Programmatic Biological Assessment for the Pacific Gas and Electric Company Topock Compressor Station Remedial and Investigative Actions (Consultation Reference: AESO/SE 22410-2006-I-0333, 8 Feb 2007).

This summary includes a tally for authorized projects that have been completed since January 2007. As of December 2009, thirteen (13) wells/well clusters have been installed in upland areas of the project site, as defined in the PBA. Three (3) wells/well clusters have been installed in jurisdictional floodplain areas on the Colorado River. Only 0.082 acre of vegetation has been removed on the Colorado River floodplain, to accommodate well installation. No removal of trees or perennial shrubs has occurred in upland areas that would constitute habitat loss as defined in the PBA.

PG&E appreciates your consideration of the attached report. Please contact me at (805) 234-2257 with any questions or concerns.

Sincerely,

Yvonne Meeks

cc: Carrie Marr/USFWS
Pamela Innis/DOI
Aaron Yue/DTSC

Cumulative Project Footprint Update (2007-2009) for Field Work Performed in Accordance with the Programmatic Biological Assessment for the Pacific Gas and Electric Company Topock Compressor Station (Consultation Reference: AESO/SE 22410-2006-I-0333, 8 Feb 2007)

On February 8, 2007, the US Fish and Wildlife Service (FWS, Phoenix, AZ) issued a memorandum (Ref No. 22410-2006-I-0333) to the Bureau of Land Management (BLM, Lake Havasu Field Office), indicating concurrence with effects determinations of a programmatic biological assessment (PBA, CH2M HILL 2007), in compliance with Section 7 of the Endangered Species Act of 1973. The PBA concluded that proposed investigative and remedial activities 'may affect, but not likely adversely affect' the southwestern willow flycatcher (*Empidonax traillii extimus*), Yuma clapper rail (*Rallus longirostris yumanensis*), Mojave desert tortoise (*Gopherus agassizii*), razorback sucker (*Xyrauchen texanus*), and bonytail chub (*Gila elegans*) and its critical habitat in the Colorado River. It was also concluded that there would be "no effect" to the Colorado pikeminnow (*Ptychocheilus lucius*).

Only certain activities on lands owned or managed by the BLM, FWS, or PG&E are covered by the consultation through the end of 2012. Complete descriptions of approved investigative and remedial actions, as well as specific spatial and temporal limitations, are provided in the programmatic biological assessment (CH2M HILL 2007). Covered activities are divided into the following project activity categories:

- 1) Well installation, maintenance, operation, and decommissioning. Up to 30 new well clusters (15 in the floodplain and 15 in the uplands) may be installed and operated. This includes provision for access to well sites.
- 2) Pipeline installation, maintenance, and operation. This includes above- and below-ground piping and appurtenances between wells, water-treatment, and water- and waste-management facilities.
- 3) Facility maintenance and operation. Includes water-treatment facilities, water- and waste-management facilities, and *in-situ* treatment operations.
- 4) Colorado River and soil sampling. Includes water sampling (shore, boat and sediment pore water sampling), seismic studies, and soil sampling throughout the project area.
- 5) Road maintenance. Maintenance of roads and paths that access facilities may be needed, to include grading, re-paving, installation of storm water culverts, and similar activities.
- 6) Restoration and mitigation activities. Includes activities to restore areas no longer needed for remediation or investigation activities to their pre-use conditions.
- 7) Emergency activities. In the event of a spill of contaminated water, fire, explosion, vehicle accident, equipment failure, chemical reactions, natural disaster, or medical emergency, response by emergency providers and PG&E personnel or contractors as described in the Hazardous Materials Management Business Plan are covered activities. Additional emergency consultation for particular incidents may be required.

The PBA (Section 3.3.7, page 3-24) defines habitat loss as removal of trees and perennial shrubs. Therefore, at the conclusion of a covered project activity, a 'footprint' is only recorded when the

covered work activity is not in previously disturbed areas and there is 'habitat loss' as defined by the PBA. Habitat loss is limited to 2.5 acres of floodplain lands and 3.0 acres of upland areas for placement of new facilities, maintenance of existing facilities, and other actions described in the PBA.

Tracking and Accounting

Projects that have been conducted with agency approval, since January 2007, are listed below. Brief descriptions and activity completion dates are included. New well cluster installations (since January 2007), which are limited to 15 on the floodplain and 15 in the upland, are tracked in Table 1. Footprint/disturbance calculations are shown in Table 2.

- California Slant Wells MW-52 and MW-53 were installed on March 30, 2007 below the I-40 bridge. This activity required the removal of 0.082 Acres of vegetation on the Colorado River floodplain (CH2M HILL 2006).
- The Upland In Situ Pilot Test was completed February 23, 2008. Five new well clusters were installed at the MW-24 bench (PT7, PT8, PT9, PTR1, and PTR2). The construction area was previously disturbed and devoid of vegetation (CH2M HILL 2008a).
- Installation of Arizona Monitoring Wells MW-54, MW-55 and MW-56 was completed April 20, 2008. MW-54 was installed under the provisions of the PBA, on federal land, in a pre-disturbed area with no removal of vegetation. MW-55 and MW-56 were installed on private land with no removal of habitat or vegetation (CH2M HILL 2008b).
- Soil Sampling (Part A) was conducted at 27 locations throughout the project area and completed October 24, 2008. All sampling activities were confined to areas with pre-existing disturbance and active channels in the desert wash, with no vegetation cleared for mobilization, soil sampling, or demobilization. (CH2M HILL 2008c). Approximately 0.162 acres of temporary disturbance to unvegetated wash active channel occurred to allow equipment access during sampling. All upland soil sampling were conducted on unvegetated previously disturbed areas, therefore, no habitat loss occurred as a result of this activity.
- The East Ravine Groundwater Investigation, involving the installation and development of groundwater monitoring wells, was completed on July 24, 2009. Approximately 0.000745 acres of permanent disturbance within the unvegetated wash from the installation of MW-58 wells (2) occurred. All upland wells; MW-57, MW-59, MW-60, MW-61, MW-62, MW-63, and MW-64 were installed on previously disturbed unvegetated areas which account for 0.00207 acres of permanent disturbance. (CH2M HILL 2009). However, since wells were constructed in unvegetated and previously disturbed areas such as within existing dirt roads and road shoulders, no habitat loss occurred as a result of this activity.

Table 1. USFWS/BLM-Permitted well cluster installation, January 1, 2007 through December 31, 2009. Not to exceed 15 flood plain well clusters and 15 upland well clusters.

Well Cluster Count	Floodplain Well No.	Date Install Completed		Upland Well No.	Date Install Completed
1	MW-52	03-30-2007		PT7	07-18-2007
2	MW-53	03-30-2007		PT8	07-18-2007
3	MW-54	04-20-2008		PT9	07-18-2007
4				PTR1	07-18-2007
5				PTR2	07-18-2007
6				MW-57	02-16-2009
7				MW-58	07-08-2009
8				MW-59	02-26-2009
9				MW-60	03-03-2009
10				MW-61	03-13-2009
11				MW-62	07-07-2009
12				MW-63	04-08-2009
13				MW-64	07-11-2009
14					
15					

Table 2. Federal agency (BLM/USFWS) permitted activities resulting in new disturbances with loss of habitat - not to exceed 2.5 acres in floodplain; 3.0 acres in upland.

Location	Activity Title (PBA Work Category)	Date Completed	Floodplain Footprint Acres	Upland Footprint Acres
Floodplain	California Slant Wells: MW-52 & MW-53 (PBA Work Category 1)	03-30-2007	0.082	0.0
Upland	Soil Part A; (PBA Work Category 4)	10-24-2008	0.0	0.0
Upland	East Ravine Groundwater Investigation Wells (PBA Work Category 1)	07-24-2009	0.0	0.0
		Total	0.082	0.0

Conclusion

As of December 2009, thirteen (13) wells/well clusters have been installed in upland areas of the project site, as defined in the PBA. Three (3) wells/well clusters have been installed in jurisdictional floodplain areas on the Colorado River. Only 0.082 acre of vegetation has been removed on the Colorado River floodplain, to accommodate well installation. No removal of trees or perennial shrubs has occurred in upland areas that would constitute habitat loss as defined in the PBA.

References

- CH2M HILL. 2006. Biological Assessment for the Pacific Gas and Electric Topock Compressor Station Groundwater Characterization beneath the Colorado River by Slant Drilling. December 2006.
- CH2M HILL. 2007. Programmatic Biological Assessment for Pacific Gas and Electric Topock Compressor Station Remedial and Investigative Actions. January 2007.
- CH2M HILL. 2008a. Biological Resources Completion Report for the Upland In Situ Pilot Test, and Associated Activities Topock Compressor Station, Needles, California. April 2008.
- CH2M HILL. 2008b. Biological Resources Completion Report for the Arizona Drilling Project, Topock Compressor Station Needles, California. June 2008.
- CH2M HILL. 2008c. Biological Resources Completion Report for the Soil Investigation Project, Topock Compressor Station Needles, California. December 2008.
- CH2M HILL. 2009. Summary of Findings Associated with the East Ravine Groundwater Investigation. October 2009.
- United States Fish and Wildlife Service (USFWS). 2006. Letter from Steven L. Spangle/USFWS to Jim Priest/BLM. Subject: Concurrence Pacific Gas and Electric Topock Compressor Station Groundwater Characterization beneath the Colorado River by Slant Drilling. December 20.