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November 30, 2012

Ms. Karen Baker
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

Ms. Pamela Innis
U.S. Department of the Interior, Office of Environmental Policy and Compliance
P.O. Box 25007 (D-108)
Denver Federal Facility Building 56
Denver, Colorado 80225-0007

Subject: Request for Second Extension of Groundwater Remedy 60% Design Submittal

Dear Ms. Baker and Ms. Innis:

This letter is a follow-up to our recent conversations and provides the rationale and basis for request of a second extension of the 60% design submittal for the final groundwater remedy.

Background

As an element of the final groundwater remedy design, freshwater sources including groundwater supply wells and the Colorado River have been considered for use during remedy operation. The minimum volume of freshwater required for remedy operation is estimated to be 600 gallons per minute (gpm). In the 30% design for the final groundwater remedy, PG&E presented a plan to obtain freshwater from a well on the Havasu National Wildlife Refuge (HNWR)—well HNWR-1. As part of the response to comments to the 30% design, PG&E prepared a memo that provided additional detail on this potential freshwater source. Following their review of this Freshwater Source Memo, the California Regional Water Quality Control Board, Colorado River Basin Region (RWQCB), subject to its invitation for PG&E to seek review by the State Water Resources Control Board, indicated that the HNWR-1 water would likely need treatment to remove naturally occurring arsenic prior to injection. Arsenic treatment of HNWR-1 water would require additional infrastructure to be built at the site, would increase electricity use and waste generation and would add an estimated $36 million to the cost of using HNWR-1 water (estimated at $4M) over the 30-year life of the project, including costs associated with the construction of an arsenic treatment plant. Using Colorado River water would also require significant infrastructure construction, increase electricity use and waste generation, and is estimated by PG&E to be even costlier (river water requires filtration and possibly disinfection and would also involve construction of a water treatment facility).

In light of these added costs - the vast majority of which having to be borne by PG&E ratepayers in Northern California – and footprint considerations and with the RWQCB's consent, PG&E

has opened discussions with the State Water Resources Control Board (State Board) regarding the need to treat naturally occurring arsenic. As the State Board has not yet made a decision on this matter, PG&E is continuing to evaluate options for freshwater supply by seeking location(s) for new well(s) that could supply an adequate quantity of water of sufficient quality to not require treatment prior to use for remedy operation. PG&E has and will continue to provide updates to state and federal agencies, interested Tribes, members of the Consultative/Technical Working Group (CWG/TWG), members of the Clearinghouse Task Force (CTF), and the Technical Review Committee (TRC) of its discussions with the RWQCB and the State Board, and continues to encourage interested parties to provide input to the State Board on this matter.

Proposed Exploratory Drilling

As mentioned in Section 3.2.2 (Well or Wells in California, page 10, last paragraph) and Section 3.3.1 (Well or Wells in Arizona, page 13, last paragraph) of the Freshwater Source Evaluation Technical Memorandum, exploratory drilling would need to be conducted in order to determine if sufficient quantity and quality of water could be obtained from a new well. During meetings/briefings with regulators and stakeholders in September and October 2012, PG&E discussed its plans for evaluation of freshwater sources and proposal to move forward with an exploratory drilling program. In late October, PG&E conducted surface geophysical surveys to identify favorable locations for exploratory drilling. On November 20, 2012, PG&E submitted to the California Department of Substances Control (DTSC) and U.S. Department of the Interior (DOI) an Implementation Plan for proposed exploratory drilling and potential installation/ hydraulic testing of new water supply well(s) in three general locations – one in California and two in Arizona.

Below is a preliminary summary of footprint, estimated costs, and advantages/disadvantages associated with use of HNWR-1 water with arsenic treatment and other potential groundwater options in California and Arizona.

Summary of Footprint, Advantages/Disadvantages, and Costs of HNWR-1 and Other Groundwater Options[1]

Fresh Water Sources (Groundwater)	Approximate Footprint	Estimated Nominal Costs[3,4]	Advantages	Disadvantages
Well HNWR-1 with Arsenic Treatment[2]	• Approx. 7,100 feet (or 1.3 miles) of new water pipe from existing well to existing water storage tanks at Compressor Station • A new arsenic treatment plant would occupy about 2000 square feet of space • Infrastructure/ utilities needed to	$40M	• Proven water source • Existing operating well means reduced installation impact • Access via county highway	• Naturally occurring arsenic in water supply wells in Topock, Arizona above MCL (10 μg/L). Per the RWQCB, arsenic would need to be treated to below MCL prior to injection in California; this would require construction of an arsenic treatment plant. • Significant, long-term operational footprint associated with

Summary of Footprint, Advantages/Disadvantages, and Costs of HNWR-1 and Other Groundwater Options[1]

Fresh Water Sources (Groundwater)	Approximate Footprint	Estimated Nominal Costs[3,4]	Advantages	Disadvantages
	support the treatment plant • Truck traffic and personnel needed to supply, operate, and dispose of waste from treatment plant			treatment plant: o New electricity loads to support plant o Chemical deliveries for treatment process, approx. 10 to 30 deliveries per year o Generation of waste sludge from treatment process, approx. 40 to 195 cubic yards per year
A new well or wells located in Arizona with no treatment	• Approx. 12,000 feet (or 2.2 miles) of water pipe from new well to existing water storage tanks at Compressor Station • A new water supply well, well vault/ well house, and electric line	$7M	• Surface geophysical survey shows a zone of potentially high groundwater yield • Access via county highway and along established unpaved roads • Power relatively nearby • A water supply well has considerably less operational footprint than a treatment plant	Water quality and quantity yet to be proven (extent of area with elevated arsenic is not well defined)
A new well or wells located in California with no treatment	• Approx. 22,000 feet (or 4.1 miles) of water pipe from new well to existing water storage tanks at Compressor Station • A new water supply well, well vault/ well house, and electric line	$10M	• Surface geophysical survey shows a zone of potentially high groundwater yield • Elevated arsenic has not been seen in water supply wells in Moabi Regional Park or Needles • No existing water supply well nearby • Access via a well-established gravel road, north of Moabi Regional Park • Power nearby • A water supply well has considerably less operational footprint than a treatment plant	Water quality and quantity yet to be proven (elevated TDS may be present due to the proximity of the marine Bouse formation)

[1] This summary of footprint, estimated costs, and advantages/disadvantages of potential freshwater options is subject to revision as the agencies, Tribes and other stakeholders provide further input, and as PG&E implements the

Summary of Footprint, Advantages/Disadvantages, and Costs of HNWR-1 and Other Groundwater Options[1]

Fresh Water Sources (Groundwater)	Approximate Footprint	Estimated Nominal Costs[3,4]	Advantages	Disadvantages

proposed exploratory drilling and potential installation/hydraulic testing of new water supply well(s), if approved by the agencies.

[2] Based on information previously presented in the Freshwater Source Evaluation Technical Memorandum.

[3] The nominal cost for HNWR-1 well with arsenic treatment includes construction, operation and maintenance (O&M) assuming 30 years of operation, and decommissioning costs. The cost was presented in September 2012 meetings with DTSC, DOI, RWQCB, State Board, interested Tribes, and CTF, and represents a rough order of magnitude level of accuracy.

[4] The nominal cost for new well in California or Arizona with no treatment includes surface geophysics, exploratory drilling, well construction, pipeline installation, power distribution service, and O&M costs assuming 30 years of operation.

Request for Schedule Extension - 60% Design

As indicated in the Implementation Plan, the current forecast schedule for completion of the proposed field work is May 2013. PG&E is committed to implement the plan as expeditiously and as safely as possible (upon receipt of agencies approval - anticipated January 11, 2013) to obtain technically defensible data that would enable both the agencies and PG&E to make an informed decision on the path forward for freshwater source. If a freshwater source can be located that does not require treatment, it will result in significant savings in cost, energy use, footprint, and waste generation.

Therefore, PG&E requests an extension of 6 months to complete its evaluation of freshwater source and incorporate the results into the 60% design (see attached schedule). The new proposed submittal date for the 60% design is July 2, 2013. This relatively short extension request could result in very significant benefits over the 30 year life of this project. As previously discussed at the October 16, 2012 CWG meeting, PG&E is committed to minimize schedule impacts to the extent possible. For example, we are proposing a series of monthly TWG meetings this spring to discuss other elements of the 60% design in an effort to assist stakeholders with review of the design submittal.

We appreciate your consideration of PG&E's request for extension. Please contact me at (805) 234-2257 if you have any questions.

Sincerely,

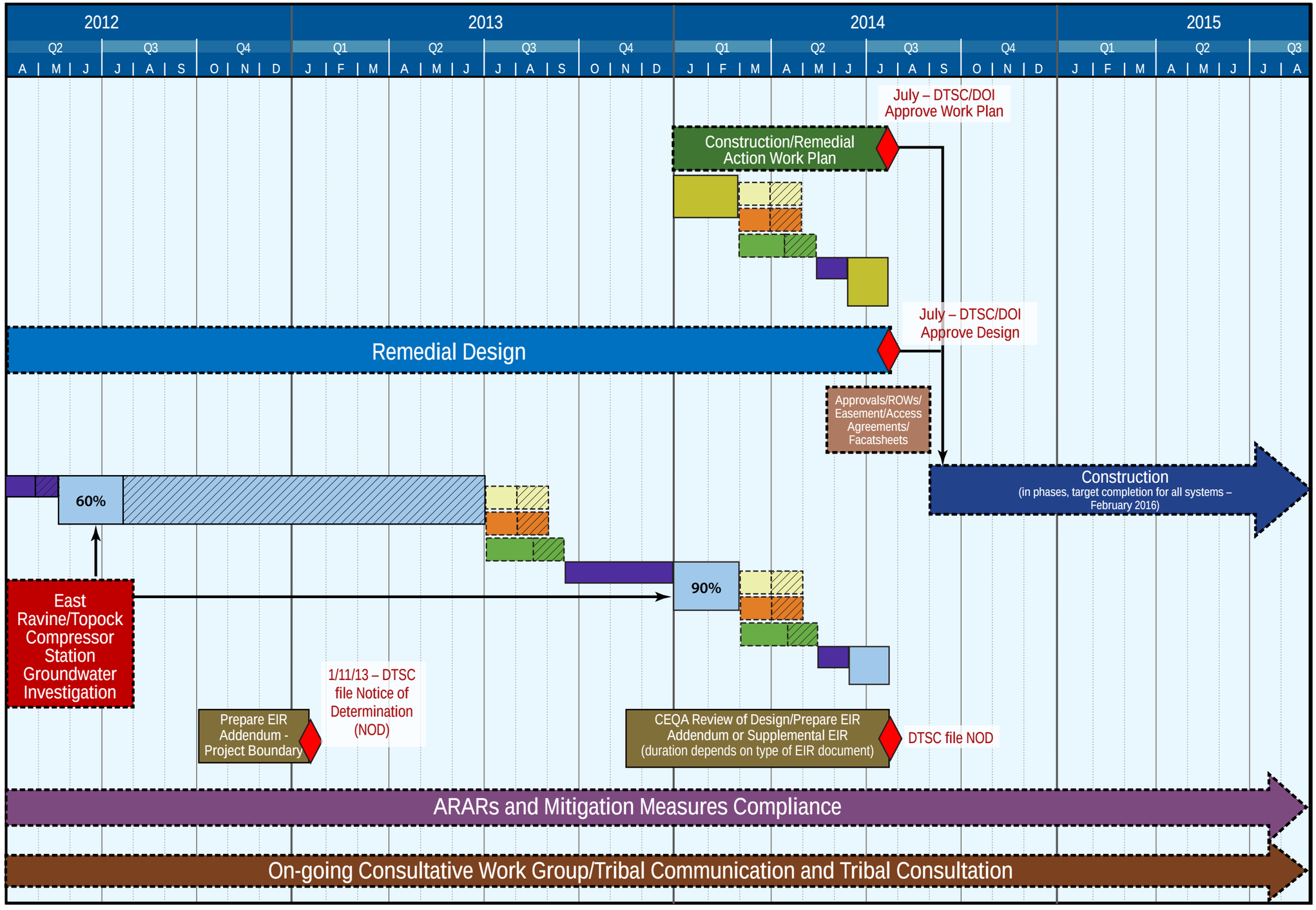
Yvonne Meeks

Topock Project Manager

cc: Sheryl Bilbrey

Groundwater Remedy Design, Construction, and Initial Start-Up Schedule

PG&E Topock Compressor Station | Needles, California
November 2012



LEGEND

- Draft/Final Work Plan
- Consultative Work Group/Technical Work Group Review
- Preliminary/ Intermediate/ Pre-Final/ Final Design
- Tribal Consultation
- Agencies Review
- Comment Resolution
- Extended Period

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