

# TOPOCK REMEDIATION REVIEW

First Quarter 2013 Newsletter

## Update on Groundwater Remedy Design

On April 5, 2013, Pacific Gas and Electric Company (PG&E) submitted the Intermediate (60%) Design for the Topock groundwater remedy, including the Draft Operations and Maintenance Manual, for agency review and comment. In compliance with the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) and as discussed at the January 16, 2013, Consultative Working Group (CWG) and the January 17, 2013 Technical Working Group (TWG) meetings, PG&E is including the conceptual design of a pre-treatment system to remove naturally-occurring levels of arsenic and fluoride from the Arizona groundwater prior to injection for the purpose of the remedy.

It is proposed that the primary source of the freshwater for injection will be water from the Havasu National Wildlife Refuge well (HNWR-1), and the secondary source will be water from PG&E Topock Compressor Station (TCS) source wells (Topock-2 and -3), both located in Arizona. The source discussion will be revisited after completion of the alternative freshwater source evaluation. The work plan for this evaluation was submitted to DTSC and the United States Department of the Interior on January 28, 2013, and is under review.

Concurrently, with the Regional Water Quality Control Board's (RWQCB's) consent, PG&E has continued discussions regarding the need for arsenic treatment with the State Water Resources Control Board (State Board). A decision from the State Board is pending.

Technical discussions with the TWG have been held in advance of the April submittal to facilitate stakeholders' review of key 60% design topics. At the February 20 TWG meeting, PG&E presented the draft Sampling and Monitoring Program and the updated modeling results since 30% design. At the March 20 TWG meeting, PG&E presented the draft Soil Management Plan and the Baseline Soil Sampling Plan, as well as the above ground versus underground piping topic. A site visit to review piping alignment and above ground structures/facilities proposed in the 60% design is planned for April 18, 2013. Stakeholder review and tribal consultation will occur concurrently with these activities and is anticipated to be complete in early June 2013. It is anticipated that the agencies will provide comments to PG&E in late June 2013 and comment resolution will occur through early October 2013.

### Mark Your Calendar

#### Groundwater Design Schedule

Intermediate (60%) Design	Submit for Review/Comment – April 5, 2013 Comments Due – June 6, 2013 Response to Comments / Comments Resolution Mid June to early October 2013
CEQA Evaluation for Freshwater Source	Anticipated Spring 2013
Intermediate (60%) Design Addendum	Schedule will be determined after receipt of approval to implement the Alternative Freshwater Source Evaluation Work Plan
Pre-Final (90%) Design	Submit for Review/Comment – April 2014 Comments Due – June 2014 Response to Comments / Comments Resolution July 2014 to August 2014

#### Revised Soil Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigation (RFI/RI) Work Plan

Submitted for Agency Approval	January 16, 2013
Soil CEQA Review	November 2012 to Late 2013
Anticipated Agency Approval	Winter, 2013, concurrent with certification of the EIR

#### Recent Regularly Scheduled Meetings

January 9, 2013	Cultural and Historic Properties Management Plan (CHPMP) Meeting, Lake Havasu, NV
January 15, 2013	Clearinghouse Task Force (CTF), Henderson, NV Tribal Monthly Update (TMU), Henderson, NV
January 16, 2013	Consultative Work Group (CWG) Meeting, Hampton Inn, Henderson, NV
January 17, 2013	Technical Work Group (TWG) Meeting, Hampton Inn, Henderson, NV
Feb 14-15, 2013	Well Head Site Survey
February 19, 2013	CTF Meeting, Henderson, NV TMU Meeting, Henderson, NV
February 20, 2013	TWG Meeting, Hilton Garden Inn, Henderson, NV
March 13, 2013	CHPMP Meeting, BLM Lake Havasu Field Office, Lake Havasu City, AZ
March 19, 2013	CTF Meeting, Henderson, NV TMU Meeting, Henderson, NV
March 20, 2013	TWG Meeting, Hilton Garden Inn, Henderson, NV

#### Additional Meetings and Events

March 12, 2013	Special Hualapai Council Meeting, Hualapai Tribal Council Chambers
March 13, 2013	Freshwater Implementation Plan meeting, DOI/DTSC/Tribes
March 14, 2013	Topock Site Walk – DOI/DTSC/Tribes/PG&E
April 1, 2013	MW-38 Repair/Old Well Survey Kickoff Meeting
April 2, 2013	Archeological Site Survey Maze B&C Areas

Note: Dates subject to change



## Topock 2013 Community Outreach Plan

Hardcopy and electronic version of the updated 2013 Community Outreach Plan (COP) were distributed to the community in January 2013. The electronic version of the COP is available on the Topock website ([www.dtsc-topock.com](http://www.dtsc-topock.com)) in the Document Library under Community Outreach [Community Outreach Plans].

The COP presents the general strategy and specific outreach activities that DTSC will conduct to facilitate community and stakeholder involvement regarding the environmental cleanup of the PG&E Topock Compressor Station. The COP also summarizes results from DTSC's 2012 Community Survey and stakeholder interviews which provided feedback to DTSC on stakeholder awareness of, and involvement in the environmental investigation and cleanup of the PG&E's Topock Compressor Station as well as suggested improvements.

## Synopsis of Technical Updates from the TWG Meetings

Below is a brief summary of three technical updates that were discussed during a recent meeting of the Topock Technical Work Group (TWG).

### Summary of Sampling and Monitoring Plan (part of the 60% Design)

The TWG discussed three key components of the monitoring program (Compliance Monitoring, In-situ Process Monitoring, and Monitoring of Chemicals of Potential Concern [Selenium, Molybdenum, and Nitrate]); the data quality objectives of each component; and the monitoring plan to achieve those objectives. Additionally discussed were rules proposed for making operational decisions during remedy operation (e.g., under which conditions should operation or remedy components be modified?).

### Updated Modeling Results (part of the 60% Design)

The TWG discussed key updates to the model since 30% Design. This includes model structure, plume boundary, well locations, various updates to the geochemical model and sensitivity analysis.

### Refresher on Plan for MW-38 Repair and Old Well/Pipe Reconnaissance (not part of 60% design)

The TWG discussed the scope and schedule for the repair and reconnaissance. The initial steps for MW-38 well repair are to expose the well casing and evaluate blockage. The initial step for the old well/pipe reconnaissance is to conduct surface geophysics to locate the pipe.

## Hualapai Council Meeting

On March 12, 2013, the Hualapai Tribal Council convened a Special meeting to provide input and listen to an overview and update on the Topock Remediation project. This came on the heels of DTSC announcing the scoping of an Environmental Impact Report for the Soil Investigation Work Plan, and welcomed input from tribes, communities and other stakeholders, both in writing and at the scoping meetings. Shortly thereafter, the Hualapai Tribe granted DTSC an audience, including participation of federal agencies and PG&E.

Leading the collaboration was Hualapai Chairwoman Sherry J. Counts, Director Loretta Jackson-Kelly and Program Manager Dawn Hubbs of the Hualapai Department of Cultural Resources. The multifaceted presentation included agencies such as Bureau of Land Management on its projects; and DTSC, PG&E and the tribal Technical Review Committee (TRC) on the Topock project. Using the newly draft digital model and narration from Dr. Margaret Eggers of the TRC, the Hualapai Council had a better forum for viewing virtual sitewide conditions and issues. The Council engaged the group in meaningful discussion and thanked the participants, encouraging continued engagement with the Hualapai and specifically its liaisons Ms. Jackson-Kelly and Ms. Hubbs.

This endeavor was heralded by all participants as an interactive and positive measure in reaching out to key leadership; providing succinct information and foundation for the project; and will serve as a template in the interactive and collaborative outreach to leaders in future presentations. The Clearinghouse Task Force plans to take this experience and apply it to enhance understanding of the project and aid in providing meaningful input to leadership and agencies in making decisions on the Topock project direction.



## Spotlight: Technical Review Committee

The Technical Review Committee (TRC) was established to convene and retain a multidisciplinary panel of independent scientific and engineering experts. The TRC is made up of multidisciplinary experts who will review project-related documents, participate in project-related meetings, and advise interested tribal members on technical matters relating to the final design and remedy.



Dr. Charlie Schlinger

Dr. Charlie Schlinger, co-founder of EN3 Professionals, LLC, is a member of the Topock Technical Review Committee. He has an active practice in water resources and energy-related civil & environmental engineering, and has practiced professionally in Northern Arizona and the Southwest for nearly 16 years, providing engineering and geosciences services to tribal, municipal, county, school district, industry and private-sector clients. Most recently, his practice has been focused on site engineering for 100-500kW solar energy developments,

groundwater remediation and soil investigations at the Topock Compressor Station, and water supply / systems. Not long ago, Charlie did a stint at Far Eastern Federal University in the Russian Far East (Vladivostok), where he co-taught a course in coastal engineering. He maintains multi-state registrations in civil engineering, geology & geophysics.

Dr. Schlinger earned his B.S. degree at the University of Michigan at Flint and his Master's Degree in Civil and Environmental Engineering

from Utah State University. He received his Ph.D. from The Johns Hopkins University, with a concentration in geophysics and geology. Additionally, Charlie is an Associate Professor in the College of Engineering, Forestry and Natural Sciences at Northern Arizona University (NAU). At NAU he covers: water systems / resources, geotechnical engineering, and geomatics / surveying. He co-founded the Watershed Research & Education Program at NAU and is a past Director.

## Topock Project Activity Recap

- Following the finalization of the Cultural and Historic Properties Management Plan (CHPMP) by the Bureau of Land Management (BLM), which occurred in the first quarter of 2012, agencies, Tribes, and stakeholders continue to meet every other month to discuss the plan. The next CHPMP meeting is scheduled for May 8, 2013, at the BLM Lake Havasu Field Office.
- Several of the mitigation measures specified by the FEIR for Groundwater are in progress:
  - The Fourth Quarter 2012 EIR Mitigation Measures Compliance Report was completed on January 31, 2013.
  - PG&E has been conducting and will continue to conduct outreach with Tribes regarding Topock project activities (CUL-1a-8a). Monthly Tribal/PG&E in-person meetings are typically scheduled for the afternoon following the CTF meetings, replacing the monthly phone calls. The purpose of the meetings is to provide collaboration on mitigation measures, provide Tribes up-to-date information on planned and ongoing studies, field activities and measures that are being taken to mitigate project impacts, and/or other project-related activities of interest.
  - The Cultural Impact Mitigation Program (CIMP) (CUL-1a-8) is under preparation. The CIMP will be submitted with the 90% Design. PG&E is conducting outreach with Tribes on the CIMP:
    - Brainstorming on content of various mitigation measures and the CIMP outline.
    - A draft CIMP will be provided to interested Tribes for review prior to submittal to DTSC for review and approval.
    - The draft final protocol for the management of displaced materials was included in the Revised Soil Work Plan, published on January 11, 2013, and will also be included in the CIMP (CUL-1a-8g).
  - The plan for the decommissioning, removal, and restoration of the IM-3 Facility will be provided to the tribes for review and included as an appendix to the CIMP.
- Field surveys:
  - Conducted additional vegetation and wetland survey to support fresh water source evaluation in October through November 2012.
  - Conducted additional archaeological/historic site field survey to support fresh water source evaluation in October through November 2012.
  - Botanical surveys were conducted in the project area during the period of March 12-14 to capture the spring blooming period. Additionally, desert tortoise surveys are planned for late spring.



# TOPOCK REMEDiation REVIEW



DEPARTMENT OF TOXIC  
SUBSTANCES CONTROL



The **Topock Remediation Review** is a quarterly technical update on the Topock Compressor Station cleanup project. It is published by the Topock Clearinghouse Task Force, a group of stakeholders comprised of state, regional, and federal agencies; Native American Tribes; and PG&E representatives.

The **Topock Remediation Review** is dedicated to enhancing stakeholder understanding of technical and regulatory information, encouraging participation in decision making forums, and fostering timely and effective project management and decisions for the Topock Compressor Station project final remedy. You may view past issues of the newsletter in the Document Library on the project's website ([www.dtsc-topock.com](http://www.dtsc-topock.com)). Navigate to the "Public Outreach" page and its "Other Outreach Documents" category.

## For More Information

Visit DTSC's Topock Project Website: [www.dtsc-topock.com](http://www.dtsc-topock.com)  
Questions regarding this newsletter or the Topock Project should be directed to:

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## Upcoming Regularly Scheduled Meetings

April 18, 2013	TWG Meeting, Topock Compressor Station, Needles, CA
May 8, 2013	CHPMP Meeting, BLM Lake Havasu Field Office, Lake Havasu City, AZ
May 21, 2013	CTF Meeting, Henderson, NV TMU Meeting, Henderson, NV
May 22, 2013	TWG Meeting, Henderson, NV, Location TBD

*Note: Dates subject to change*

