CLEANUP PROGRAM SEPTEMBER 2024

COMMUNITY UPDATE

Department of Toxic Substances Control – Our mission is to protect California's people, communities, and environment from toxic substances, to enhance economic vitality by restoring contaminated land, and to compel manufacturers to make safer consumer products.

SOIL REMOVAL ACTION COMPLETE AS GROUNDWATER CLEANUP CONTINUES AT THE PACIFIC GAS & ELECTRIC COMPANY TOPOCK COMPRESSOR STATION

The California Department of Toxic Substances Control (DTSC) as the lead state agency, and the U.S. Department of Interior (DOI) as the lead federal agency, are overseeing the soil and groundwater cleanup activities at the Pacific Gas & Electric Company (PG&E) Topock Compressor Station (Station).

The Station is located in eastern San Bernardino County, about 12 miles southeast of Needles, California, south of Interstate 40, and one-half mile west of the Colorado River. It is surrounded by federal land and is situated within a Native American Traditional Cultural Property as designated by the Bureau of Land Management.

All environmental work on the project is governed by both state and federal law. DTSC oversees the project Corrective Actions under the Resource Conservation and Recovery Act (RCRA). DOI and its resource agencies oversee the cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This combined oversight adds complexity, but it also ensures thorough investigations and long-term protection of public health and the Colorado River, as well as sensitive cultural and biological resources in the area.

This Community Update features:

- Completion of the soil removal action and next steps in the comprehensive cleanup process
- Status on the groundwater remedy and performance of the groundwater treatment system that began operating in December 2021
- Results of the first 5-year review of groundwater remedy performance
- A request to complete a survey to assist DTSC in updating the Community Outreach Plan

SOIL REMOVAL ACTION IS COMPLETE

The Station is surrounded by federal and Tribal land that is home to sensitive plants, animals, and cultural resources. Recognizing the need to protect those resources and public health, DOI directed PG&E to remove soil from 15 locations on federal land or where contaminants could migrate to federal land. This non-time-critical removal action (NTCRA) began in July 2022 and was finished in May 2024. The NTCRA Completion Report will document work completed, including achievement of cleanup goals.

An excavator works to remove contaminated soil from federal land adjacent to compressor station property.

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Approximately 34,000 cubic yards of soil (about 1,500 truckloads) were safely removed. Uncontaminated rocks and boulders were separated from the soil for potential reuse. Before removal action was considered complete, soil samples were tested at each location to confirm that regulatory goals that protect human health and the environment had been met. Once confirmed, each area was filled with clean soil or reshaped for slope stability.

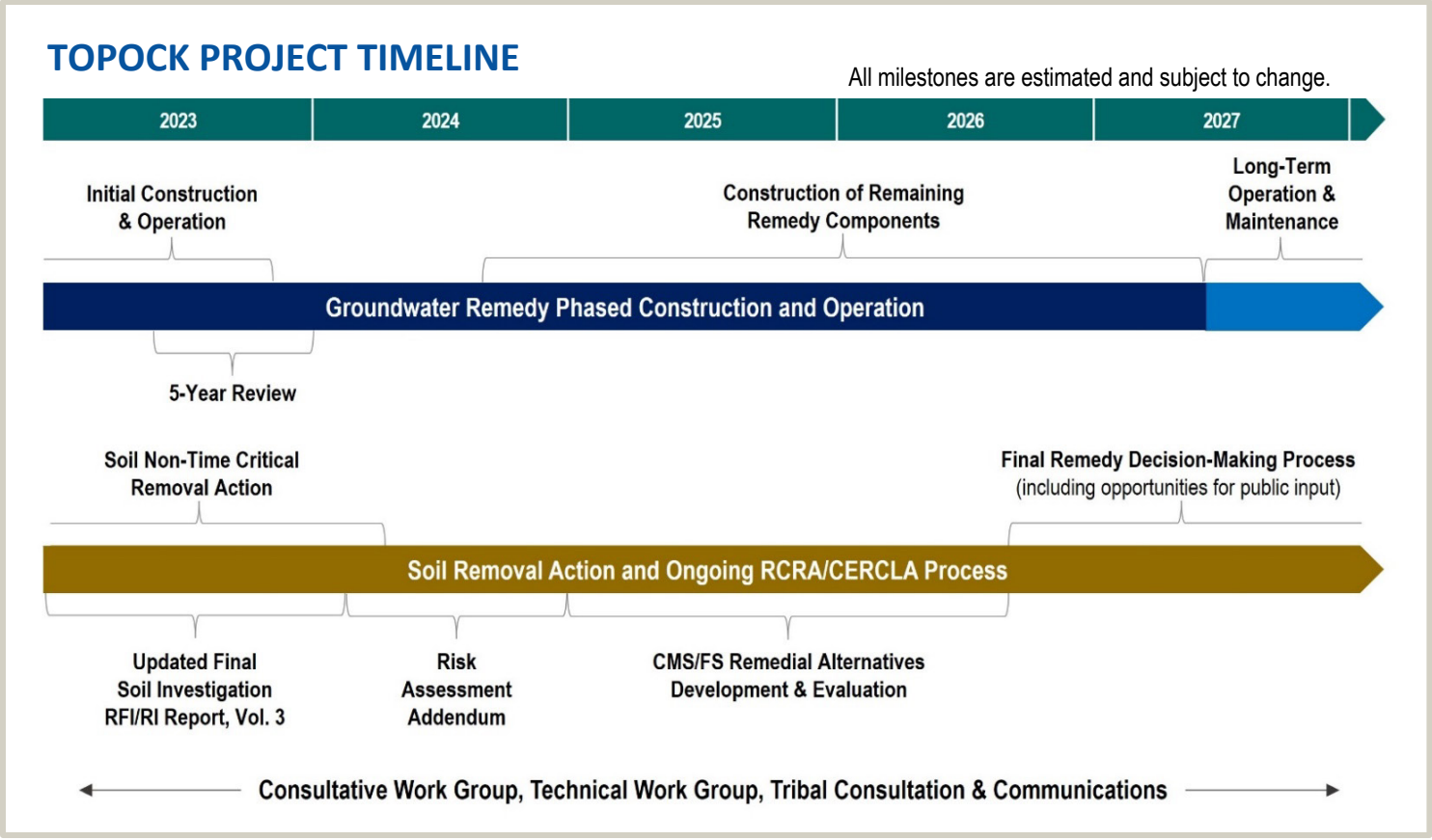
Tribal monitors were onsite daily during the NTCRA to observe the work and protect cultural resources in this sensitive landscape.

NEXT STEPS IN THE SOIL CLEANUP PROCESS

The primary purpose of the soil removal action was to reduce the potential migration of contamination onto or within federal properties. DOI found interim removal action necessary since a final cleanup plan is not expected for several more years. This interim approach to soil remediation helps protect public health, wildlife, and the Colorado River until a final remedial decision is made.

To comply with RCRA and CERCLA laws, the next steps in the regulatory process for soil include:

- **Finalize the RCRA Facility Investigation/Remedial Investigation (RFI/RI) report** that documents the extensive testing results used to define the location and amounts of contaminants in soil. The RFI/RI Volume 3 report for soil was approved by the agencies in June 2024.
- **Update the Human Health and Ecological Risk Assessments** through an addendum that will take into consideration the removal of contamination. The update will explain the reduction in potential risk to human health and the environment based on the confirmation sampling results. This will inform the project team of any additional cleanup action that may or may not be needed.
- **Develop the Corrective Measures Study/ Feasibility Study** (CMS/FS) to describe and evaluate cleanup options that are associated with remaining contamination, if needed. The CMS/FS will propose final actions for soil, including the necessary controls and monitoring that may be needed if residual contamination remains in place. Tribal and stakeholder input will be included in this process. The CMS/FS is anticipated to be completed in 2026.



GROUNDWATER REMEDY UPDATE

Although only a portion of the groundwater remedy has been built so far, the in-situ reactive zone (IRZ) is the heart of the system and has been in operation since December 2021. The IRZ is a line of new extraction and injection wells installed along National Trail Highway. To create the groundwater treatment zone, ethanol is injected along the IRZ to stimulate the growth of naturally occurring bacteria. That biological activity creates underground conditions that convert hexavalent chromium to trivalent chromium, a harmless and naturally abundant substance. Once converted, trivalent chromium leaves the groundwater to become part of the surrounding soil.

While the IRZ continues to operate, construction of the remaining system components is temporarily on hold pending agency reviews and Tribal and stakeholder input on PG&E's proposal to modify the design approved in 2018. The proposal seeks to change the locations and configuration of wells based on current understanding of the plume size and location.

WORKING TOGETHER TO OVERCOME CHALLENGES

Several challenges delayed the intended schedule but were successfully addressed, including:

- Pandemic-related supply chain disruptions that delayed delivery of critical equipment. These types of delays have now eased.
- Interruptions in electrical power to the system during the early months of operation. The power supply is now more consistent and reliable.
- Severe storms that caused flooding and damage to electronic controls. Sensitive equipment is now relocated and better protected. Stormwater management methods are also improved.

With DTSC and DOI oversight, PG&E responded quickly in the summer of 2023 when monitoring data showed an untreated, but localized, pocket of hexavalent chromium near the river. PG&E sought to repurpose an unused well to increase extraction of the contamination. After collaboration with the agencies, Tribes, and several stakeholders, a short distance of pipe was added, and the extraction well began pumping groundwater to the IRZ for treatment. Monitoring data now show decreasing concentrations in the area. DTSC will continue to track the effectiveness and performance of the remedy.

Workers use heavy machinery to drill into the ground to install a monitoring well. Nearly 130 new wells are in use for groundwater treatment and performance monitoring.

FIRST FIVE-YEAR REVIEW IS COMPLETE

In December 2023, DTSC coordinated with DOI to complete the first 5-year review of remedy performance since construction began in 2018. The purpose of 5-year reviews is to determine if the remedy is functioning as intended, if the assumptions about how to control contamination are still valid, and if any information and conditions have changed that would cause the remedy to be ineffective in protecting the Colorado River, human health, and the environment. This type of review will continue every 5 years until all project requirements are achieved.

DOI published a public notice in May 2023 to gather feedback from the public, Tribes, multiple agencies, and PG&E. After feedback was received, DOI evaluated the engineering, installation, and performance of the cleanup systems built so far. Findings include:

- IRZ and supporting systems are operational and actively treating the groundwater plume after overcoming initial startup challenges. However, until the entire remedy is constructed, the remedy cannot be evaluated accurately.
- Monitoring wells show reductions in hexavalent chromium concentrations and total mass, and sampling upstream and downstream shows the Colorado River has not been impacted by the contamination.
- There are concerns of increasing storm severity damaging remedy infrastructure. Another concern is potential new or emerging contaminants that may need additional research and evaluation.
- Overall, the report indicates the approved remedy is expected to be protective of human health and the environment when completed if the system functions as designed. System maintenance, monitoring, and compliance measures are ongoing.

WHERE TO FIND PROJECT INFORMATION

Groundwater and soil investigation reports, the groundwater remedy design documents, environmental impact reports, risk assessments, fact sheets, progress reports, and other documents are available online or at the locations listed below.

Project website: https://topockremediation.pge.com/
EnviroStor: www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=80001836
Progress reports: https://topockremediation.pge.com/documents/cleanup-implementation
Outreach plans and activities: https://topockremediation.pge.com/outreach-activities

Scan for additional information on DTSC projects through our EnviroStor database.

Needles Branch Library
1111 Bailey Avenue
Needles, California 92363
(760) 326-9255

Chemehuevi Indian Reservation
Environmental Protection Office
2000 Chemehuevi Trail
Havasu Lake, California 92363
(760) 302-4058

Colorado River Indian Tribes Library/Archive
26600 Mohave Road
Parker, Arizona 85344
(928) 669-1332

Golden Shores/Topock Library
13136 South Golden Shores Pkwy.
Topock, Arizona 86436
(928) 768-2235

Lake Havasu City Library
1770 North McCulloch Blvd.
Lake Havasu City, Arizona 86403
(928) 453-0718

DTSC READING ROOM

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(714) 484-5337

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ALTERNATE FORMAT

Public documents may be made available in an alternative format (Braille, large format print, etc.) or in another language in accordance with state and federal law. Please contact the DTSC Project Manager listed above for assistance.

DTSC INVITES YOUR INPUT

as we update the Topock Project Community Outreach Plan

DTSC strives for meaningful engagement with nearby communities, Tribes, and other stakeholders. To do that we need your help in updating the 2018 Community Outreach Plan (COP) for the Topock project.

Please take a few minutes to fill out the enclosed community survey and mail it by October 25, 2024, to:

Charlie Liu
Public Participation Specialist
Department of Toxic Substances Control, 5796 Corporate Avenue, Cypress, CA 90630

We plan to complete the updated COP later this year and post it on the project website and place copies at the information repositories listed to the left.

SITE BACKGROUND AND HISTORY

In 1951, the Topock Compressor Station began compressing natural gas for transportation through PG&E pipelines to its service area in central and northern California. As natural gas is compressed, its temperature increases and must be cooled.

From 1951 to 1985, PG&E added chromium to the water used in the cooling towers and other equipment to prevent corrosion, as was common industry practice at the time. From 1951 to 1964, cooling tower wastewater containing hexavalent chromium was discharged into Bat Cave Wash, a natural wash adjacent to the Station. Testing shows that some areas of soil on and near the Station were also affected by these historical operations.

Over time, hexavalent chromium seeped into the groundwater and created a groundwater plume. Extensive testing over many years shows that the plume is shrinking in extent and at no time has hexavalent chromium been detected in Colorado River water or sediments near the river.

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COMMUNITY Update

INSIDE:

- Completion of the Soil Removal Action and Next Steps in the Comprehensive Cleanup Process
- Status of the Groundwater Remedy
- Results of the First 5-Year Review of Groundwater Remedy Performance
- Update on Community Outreach Plan, Community Survey, and Community Interviews