
Lahontan Regional Water Quality Control Board

Status of Actions April 2023 PG&E Hinkley Chromium Contamination

Chromium Plume Boundary

In general, the Fourth Quarter 2022 groundwater data indicate that plume migration is not occurring but do reflect natural fluctuations of groundwater concentrations as remediation progresses. The Fourth Quarter 2022 chromium plume maps can be viewed on GeoTracker at [Fourth Quarter 2022 Groundwater Monitoring Report and Domestic Well Sampling Results](https://geotracker.waterboards.ca.gov/?url=f3sa2) (<https://geotracker.waterboards.ca.gov/?url=f3sa2>) and are Figures 5-1 through 5-6 of this report.

Chromium plume maps representing previous quarters are posted on the Water Board's Hinkley website at [Water Board's Hinkley website](http://www.waterboards.ca.gov/lahontan/water_issues/projects/pge/index.shtml) (http://www.waterboards.ca.gov/lahontan/water_issues/projects/pge/index.shtml), at the bottom of the page under the section titled "Other Documents and Information." The First Quarter 2023 plume map is due on May 10, 2023, consistent with the reporting due dates contained in Cleanup and Abatement Order (CAO) No. R6V-2015-0068.

Chromium Background Study

Dr. John Izbicki, the United States Geological Survey (USGS) study's lead scientist, reports that the final draft has made significant progress through the final stages of the review process and is near publication. The report is anticipated to be published by the end of April 2023. A report out on the Background Study Report will be presented at the next Lahontan Water Board Meeting scheduled for April 26, 2023. Dr. Izbicki will present a scientific based, high-level overview of the Background Study Report, followed by a high-level timeline of next steps that Water Board staff will take for a CAO revision.

The Water Board meeting will be held on April 26, 2023, at 1230 PM PDT at Barstow Community College Black Box Theater, 2700 Barstow Road, Barstow CA 92311. The public will also be able to view the meeting via webcast at <https://cal-span.org/>.

Routine Monitoring Reports

PG&E submitted the following reports in accordance with the respective monitoring and reporting requirements. Water Board staff are reviewing these routine monitoring reports.

- 2022 Annual Mitigation Monitoring and Reporting Program Compliance Report
- 2022 Annual Agronomic Rate Performance Report

PETER C. PUMPHREY, CHAIR | MICHAEL R. PLAZIAK, PG, EXECUTIVE OFFICER

- Annual Cleanup Status and Effectiveness Report (January to December 2022)

Non-routine Reports

PG&E has submitted the following reports for review and consideration for changes regarding their remediation strategies. These requests are part of the adaptive management of the project to optimize PG&E's remedial systems. Water Board staff are reviewing these reports.

- Summary of Lower Aquifer Extraction Pilot Test Results and Request to Modify Plan for Enhancement of Lower Aquifer Remedy
- Request to Modify Western Action Plan to Remove Northwest Freshwater Injection System Operation
- 2022 Groundwater Monitoring Optimization Proposal

Request to Revise Hydraulic Capture Metrics

On December 29, 2022, PG&E submitted results of the 2022 Pilot Test to Assess Revised Hydraulic Capture Metrics. PG&E collected eight months of monitoring data to demonstrate hydraulic containment using revised hydraulic capture metrics as part of an 18-month pilot test to evaluate an optimized groundwater extraction configuration to continue hydraulic containment. The extraction configuration was last optimized in 2016. Since then, the 10 microgram per liter ($\mu\text{g/L}$) and 50 $\mu\text{g/L}$ hexavalent chromium and total chromium plume boundaries north of the Barstow-Bakersfield highway have retracted. The purpose of revised capture metrics is to optimize groundwater extraction to continue hydraulic containment, allow for more efficient capture, and reduce water use based on the current conditions at the site.

PG&E has submitted a request to revise CAO No. R6V-2015-0068 to allow for operation of the northern hydraulic containment system under the proposed revised hydraulic capture metrics determined by the pilot test results. PG&E plans to continue operating the hydraulic containment system, as described in the pilot test, for the duration of the approved 18-month pilot testing period that ends July 31, 2023. Water Board staff are reviewing the pilot test results and request for revised hydraulic capture metrics.

New Proposed Area of Allowable Expansion

During the Second and Third Quarters 2022, increased In-situ Remediation Zone (IRZ) injections resulted in plume expansion along Summerset Road between Community Boulevard and Frontier Road. The 2015 CAO Requirement V.H allows for temporary plume expansion in this area during implementation of remedial action. It was observed that the plume expansion was reaching the fringes of the 2008 Area of Allowable Expansion. Similar plume expansion occurred previously in 2020 when injections were occurring, so plume expansion in this area was anticipated. PG&E decreased IRZ injections into this target treatment area in spring 2022 to stop further expansion. PG&E stopped IRZ injections altogether in August 2022, and resumed minimal operations in December 2022. PG&E is requesting a revised Area of Allowable Expansion to allow for further expansion to the east in order to perform IRZ injections at the rate required for

remediation. The significant reduction in IRZ injections is limiting progress toward remedial timeframe targets. Water Board staff are reviewing the request.

Revised Sampling and Analysis Plan for the IRZ Notice of Applicability

In 2021, a new IRZ Notice of Applicability (NOA) of General Waste Discharge Requirements, Board Order No. R6V-2008-0014 was issued with new requirements including submittal of a Sampling and Analysis Plan (SAP). This streamlines the monitoring and reporting by allowing changes to the monitoring well network through a request by PG&E to revise the SAP. PG&E submitted a request to revise the IRZ NOA SAP on January 20, 2023. The request was reviewed by Water Board staff and the Independent Review Panel (IRP). Water Board staff concurred with the proposed changes. Revisions to the SAP that will be implemented the next quarterly period are:

- IRZ monitoring well MW-227D is being added to the monitoring program.
- The domestic well monitoring network for WTR-MM-2A was expanded to include domestic wells BGS-47 and 15-14.
- The sampling frequency at CA-MW-402D was increased to quarterly to replace quarterly sampling at dry well CA-MW-402S.
- The sampling frequency at CA-MW-315D was increased to quarterly to improve remedial performance monitoring in this area.

Water Board PG&E Hinkley Chromium Cleanup Webpage

Water Board staff have updated our [PG&E Hinkley Chromium Cleanup Project webpage](https://www.waterboards.ca.gov/lahtontan/water_issues/projects/pge/) (https://www.waterboards.ca.gov/lahtontan/water_issues/projects/pge/). The project webpage hosts certain documents and announcements related to PG&E's corrective actions, as well as copies of past and current plume maps to access or download and print from the webpage. Please contact Water Board staff with any questions or for assistance.

Your Water Board Staff Contacts

Water Board oversight of the PG&E Hinkley Chromium Cleanup project is provided by staff in the Water Board's Victorville office located at 15095 Amargosa Road, Building 2, Suite 210, Victorville, CA 92394. Your Water Board staff contacts are listed below. Please feel free to contact any of the those listed should you need assistance.

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