
Lahontan Regional Water Quality Control Board

Status of Actions October 2022 PG&E Hinkley Chromium Contamination

Chromium Plume Boundary

In general, the Second Quarter 2022 groundwater data indicate that plume migration is not occurring but do reflect natural fluctuations of groundwater concentrations as remediation progresses. The Second Quarter 2022 chromium plume maps can be viewed on GeoTracker at [Second Quarter 2022 Groundwater Monitoring Report and Domestic Well Sampling Results](https://geotracker.waterboards.ca.gov/?surl=4pcgu) (<https://geotracker.waterboards.ca.gov/?surl=4pcgu>) 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 Third Quarter 2022 plume map is due on November 10, 2022, consistent with the reporting due dates contained in Cleanup and Abatement Order (CAO) No. R6V-2015-0068.

Monitoring Well MW-83S Contingency Plan

The Second Quarter 2022 Hydraulic Capture Report was submitted to the Water Board on August 12, 2022, in compliance with the CAO No. R6V-2015-0068 to demonstrate hydraulic capture of hexavalent chromium (Cr(VI)) in groundwater in Hinkley. During second quarter 2022, Cr(VI) exceeded 10 micrograms per liter ($\mu\text{g/L}$) at monitoring well MW-83S (12 $\mu\text{g/L}$), located north of Alcurdia Road, west of the containment target, and outside of the hydraulic capture zone. This was the first time Cr(VI) has been detected equal to or greater than 10 $\mu\text{g/L}$ at well MW-83S. Based on the hydraulic capture metrics, the Second Quarter 2022 Hydraulic Capture Report concluded that the detection was not indicative of a loss of hydraulic containment or plume movement.

PG&E submitted the Well MW-83S Contingency Plan in accordance with the requirements in Sections V.D and V.E of the CAO to address the increased Cr(VI) concentrations during the second quarter of 2022, however, Water Board staff determined that none of the conditions outlined in CAO Section V.C had occurred that would warrant submittal of a contingency plan under CAO Section V.D. The Well MW-83S Contingency Plan proposes sampling MW-83S and surrounding wells starting in the third quarter 2022 until there are two consecutive quarters of concentrations less than 10 $\mu\text{g/L}$. No specific actions to reduce Cr(VI) concentrations are proposed at this time. Water Board staff commented on the Well MW-83S Contingency Plan in a letter dated September 30, 2022.

Request to Modify Western Action Plan to Remove Northwest Freshwater Injection System Operation

On September 6, 2022, PG&E submitted a *Request to Modify the Western Action Plan to Remove Northwestern Freshwater Injection System Operation* (Western Action Plan). The Western Action Plan provided the results from the Northwestern Freshwater Injection (NWF) Shutdown Pilot Test that was performed over a 5-month period, beginning in February 2022 and ending in July 2022. The purpose of the pilot test was to determine whether shutting down the NWF system showed any rebound or movement of the chromium plume to the west. PG&E determined that the shutdown of the NWF system did not affect plume movement and chromium concentration rebound was not observed.

Based on the results of the pilot test, PG&E is requesting Water Board approval to modify the Western Action Plan to permanently discontinue operation of the NWF system. Future corrective actions to address chromium concentrations in the Western Area, if needed, will be triggered as required by the CAO based on chromium concentrations in Western Area sentry wells. Chromium trends will continue to be monitored, as required under the monitoring program identified in the CAO. Water Board staff are reviewing this request.

Summary of Lower Aquifer Extraction Pilot Test Results and Request to Modify Plan for Enhancement of Lower Aquifer Remedy

On April 1, 2022, PG&E submitted the *Summary of Lower Aquifer Extraction Pilot Test Results and Request to Modify Plan for Enhancement of Lower Aquifer Remedy* (2014 Action Plan) report. PG&E performed the pilot test at the transition zone, where the blue clay thins out allowing for communication between the upper and lower aquifer. PG&E evaluated turning off extraction wells EX-29, EX-30, and EX-37 to attempt to enhance chromium concentration reductions at wells MW-92C and MW-100C by changing flow paths where chromium concentrations were not improving in response to remedial actions. Based on the results of the pilot test, which was performed between July 10, 2020 to February 1, 2022, PG&E is recommending continuing operation of well EX-37 in the near term to remove mass from the transitional area while upper aquifer chromium concentrations are reduced. The report included a request to modify the 2014 Action Plan to enhance chromium reductions in the lower aquifer. Water Board staff reviewed the report and requested additional information in a letter dated August 23, 2022.

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/lahtan/water_issues/projects/pge/) (https://www.waterboards.ca.gov/lahtan/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.

Routine Monitoring Reports

PG&E submitted the following reports in accordance with the respective monitoring and reporting requirements.

- 2nd Quarter 2022 Hydraulic Capture Report
- 2nd Quarter 2022 Groundwater Monitoring Report and Domestic Well Sampling Results
- 2nd Quarter 2022 Agricultural Treatment Units (ATUs) Monitoring Report
- 1st Half 2022 Semi-Annual Monitoring Report for the In Situ Reactive Zone and Freshwater Injection Projects

Water Board staff are reviewing these routine monitoring reports.

Chromium Background Study

The final draft of the Hinkley Chromium Background Study Report continues to move through the United States Geological Survey (USGS) internal review process.

Dr. John Izbicki, the study's lead scientist, reports that progress is going smoothly and that each step within the review process adds to the quality of the final report. The report is in the final stages of review with the USGS Bureau Approving Official, and it is anticipated that the report will be published by Spring 2023.

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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