Lahontan Regional Water Quality Control Board

Status of Actions July 2023
PG&E Hinkley Chromium Contamination

Chromium Plume Boundary

In general, the First Quarter 2023 groundwater data indicate that plume migration is not occurring but do reflect natural fluctuations of groundwater concentrations as remediation progresses. The First Quarter 2023 chromium plume maps can be viewed on GeoTracker at First Quarter 2023 Groundwater Monitoring Report and Domestic Well Sampling Results (https://geotracker.waterboards.ca.gov/?surl=7c5q7) 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), at the bottom of the page under the section titled "Other Documents and Information." The Second Quarter 2023 plume map is due on August 10, 2023, consistent with the reporting due dates contained in Cleanup and Abatement Order (CAO) No. R6V-2015-0068.

Lahontan Regional Water Board August 2023 Board Meeting

Water Board staff, with staff from Pacific Gas and Electric (PG&E) and the Independent Review Panel (IRP) Manager, will provide the annual update on the status of activities related to PG&E's chromium cleanup in the Hinkley Valley at the regularly scheduled meeting of the Lahontan Water Board. The update will include a summary of major activities for 2022/2023, a presentation on the annual Cleanup Status and Effectiveness Report for 2022, and an update from the IRP Manager. The meeting will be held on

August 30, 2023 at 9AM
at
Mojave Water Agency
13846 Conference Center Dr
Apple Valley, CA 92307

Following the Annual Status Update, Dr. John Izbicki with the United States Geological Survey (USGS), will be available to take questions related to methods and findings of the USGS Chromium Background Study. Water Board staff will follow Dr. Izbicki's question and answer session with a description of implications of the background study on a revised CAO, as well as provide an updated tentative milestone timeline based on work that has been done since the April 2023 Water Board meeting and what the next steps are for the CAO revision.

Board members and the public will have the opportunity to ask questions of Water Board staff and provide suggestions on the next steps for the CAO revision.

The meeting agenda will be posted to our Board Meeting Schedule (https://www.waterboards.ca.gov/lahontan/board_info/agenda/2023_schedule.html) website around August 16, 2023. To listen to the meeting via webcast or participate via Zoom, visit our August 2023 Board Meeting Details Website (https://www.waterboards.ca.gov/lahontan/board_info/remote_meeting/#meeting_details) for more information.

Chromium Background Study

In April 2023, United States Geological Survey (USGS) released the professional paper *Natural and Anthropogenic (Human-Made) Hexavalent Chromium, Cr(VI), in Groundwater near a Mapped Plume, Hinkley, California* also known as the USGS Background Study. Dr. John Izbicki of the USGS provided a report out on the Background Study during the April 2023 Lahontan Water Board meeting. Dr. Izbicki presented a scientific based, high-level overview of the Background Study. Dr. Izbicki will be at the August 2023 Water Board meeting to answer questions from the Water Board and the public.

On June 10, 2023, Dr. Izbicki provided a presentation to the community at the monthly Hinkley community breakfast held at the Hinkley Community Center. Dr. Izbicki's presentation began with a brief background of concentrations of hexavalent chromium in the Hinkley and Water Valleys. He described the summative scale analysis, anthropogenic chromium plume boundary, and the background numbers. At the end of the presentation, Dr. Izbicki provided an opportunity for community members to ask questions.

The Technical Working Group (TWG), made up of Hinkley community members, the Independent Review Panel, PG&E, and Water Board staff, held the first TWG meeting on July 18, 2023. This was the first TWG meeting since the release of the USGS Background Study. Topics discussed included discussion of selected wells included within or excluded from the summative-scale Cr(VI) plume extent, selection and use of different Cr(VI) background values presented in the report, and applicability of microcosm data to environmental settings.

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.

- First Quarter 2023 Hydraulic Capture Report
- First Quarter 2023 Groundwater Monitoring Report and Domestic Well Sampling Results
- First Quarter 2023 Agricultural Treatment Units Monitoring Report
- Second Quarter 2023 Hydraulic Capture Report

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.

- Request to Revise Hydraulic Capture Metrics
- Summary of Lower Aquifer Extraction Pilot Test Results and Request to Modify Plan for Enhancement of Lower Aquifer Remedy
- Request to Modify the Western Action Plan to Remove Northwestern Freshwater Injection System Operation
- 2022 Groundwater Monitoring Optimization Proposal
- Request to Revise Area of Allowed Plume Expansion in CAO R6V-2015-0068

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 (µg/L) and 50 µg/L hexavalent chromium and total chromium plume boundaries north of the Barstow-Bakersfield Highway have retracted. The purpose of revising the 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.

Release of Initial Statement of Reasons, Draft Environmental Impact Report, and Notice of Availability of Draft Environmental Impact Report to Establish a Maximum Contaminant Level for Hexavalent Chromium

On June 16, 2023, the State Water Resources Control Board (State Water Board) announced the release of an Initial Statement of Reasons, Draft Environmental Impact Report, and Notice of Availability of Draft Environmental Impact Report for establishing a maximum contaminant level (MCL) for hexavalent chromium. The proposed hexavalent chromium MCL is 10 parts per billion (ppb). In November 2015, the Regional Board issued Cleanup and Abatement Order (CAO) No. R6V-2015-0068 to Pacific Gas & Electric Company (PG&E) to clean up and abate waste discharges of total and hexavalent chromium to the groundwaters of the Mojave Hydrologic Unit. At the time the CAO was issued, the MCL for hexavalent chromium was 10 ppb; however, the MCL was subsequently invalidated in 2017. Depending on the final State Water Board adopted MCL for hexavalent chromium, the Regional Board may need to update the CAO to reflect the then current regulatory level. Water Board staff do not anticipate that a final MCL of 10 ppb hexavalent chromium will affect the cleanup goals established in the CAO.

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/lahontan/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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