

From: [REDACTED]
To: RB6enfproceed@waterboards
Cc: [REDACTED]
Subject: Response to Advisory Team CAO Information Request
Date: Wednesday, May 20, 2015 9:29:53 PM
Attachments: [NorthValleyOccupancy_Expanded_20150520.pdf](#)
[Response to Advisory Team CAO Information Request 5_20_2015_Final.pdf](#)

Dear Ms. Kouyoumdjianm,

On April 16, 2015, the Water Board requested that PG&E submit a response to two questions associated with the Proposed Cleanup and Abatement Order for the Hinkley remediation project. Please see PG&E's response as attachments to this email. We look forward to discussing the proposed CAO with you on May 28th.

Thank you,

Betsy Brunswick, PE

Hinkley Program Manager

Pacific Gas and Electric Company

[REDACTED]
[REDACTED]

PG&E is committed to protecting our customers' privacy.

To learn more, please visit <http://www.pge.com/about/company/privacy/customer/>



**Pacific Gas and
Electric
Company**

Betsy Brunswick
Hinkley Program
Manager

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May 20, 2015

Ms. Patty Kouyoumdjian, Executive Officer
California Regional Water Quality Control Board, Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, California 96150

**Subject: Response to Additional Information Requested: Proposed Cleanup and
Abatement Order Requiring Pacific Gas and Electric Company to Cleanup
Discharges of Chromium to Ground Waters in Hinkley**
Pacific Gas and Electric Company's Hinkley Compressor Station,
Hinkley, California

Dear Ms. Kouyoumdjian:

Pacific Gas and Electric Company (PG&E) is submitting this letter in response to the request for information on the Proposed Cleanup and Abatement Order (CAO) for remediation of chromium in groundwater at the PG&E Hinkley Compressor Station issued by the California Regional Water Quality Control Board, Lahontan Region (LRWQCB) in a letter dated April 16, 2015. The letter requested information from PG&E on two topics and information on each is provided below.

Question for PG&E a. As recommended in its Northern Areas Investigation Proposal, dated January 17, 2014, PG&E offered to install reverse osmosis systems in residences with active domestic wells in the Harper Dry Lake Valley. Since the adoption of the MCL for Cr6, how many active domestic well owners have received an offer from PG&E to install a reverse osmosis system and in what areas are those domestic wells located? How many accepted that offer and how many rejected it?

PG&E began offering undersink reverse osmosis (RO) systems to community members located in the Harper Dry Lake Valley area in March 2014. These units address a wide variety of water quality issues typically found in the desert environment. The residences are located immediately north and just outside the boundary of the whole house water replacement program area, and all wells sampled in this area have hexavalent chromium (Cr[VI]) levels well below the MCL. This area, referred to as Water Valley Study Area in the January 17, 2014 Northern Areas Investigation Proposal is shown on Figure 1. Outreach to this area associated with the RO offer consisted of phone calls, site visits, mailings and leave behind contact cards for occupants who were not home. Of the eighteen households in this area, five accepted the reverse osmosis units. The remaining thirteen households were either non responsive or declined the offer directly. The MCL for Cr[VI] was issued in July 2014. Three of the five RO units were installed after the Cr[VI] MCL was established. PG&E has continued the RO offer to the households in this area. As such, outreach extended from March 2014 and continues through the present. In an effort to respect the privacy of individual residents, we have listed properties that accepted RO units grouped by area as follows:

- Area adjacent to North Orchard Road, East/West Orchard Road and Hinkley Road; 1 of 2 households
- Area near the intersection of Grass Hopper and Orchard Road, west of Harpers Way; 0 of 3 households

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- Area near the intersection of Grass Hopper and Hinkley Roads, east of Harpers Way; 2 of 7 households
- Areas near the intersection of Harpers Way and Halstead Road, west of Hinkley Road; 2 of 4 households
- Area near Holstead Rd, west of Hinkley Road; 0 of 2 households

Question for PG&E b. What additional actions, if any, is PG&E willing to perform for the areas downgradient of the southern core plume to ensure protection of public health and water quality from the potential migration of the chromium plume?

Additional actions in the downgradient area of the core plume are not necessary to protect public health and water quality from potential migration of the chromium plume. PG&E has implemented remediation activities that have controlled the migration of the core chromium plume, and as a result both public health and water quality are currently protected from potential migration of the core plume south of Thompson Road. Additionally, the extensive program of groundwater sampling ensures that the plume does not migrate and potentially threaten water quality or public health. Most importantly, the Proposed CAO appropriately contains requirements to maintain and demonstrate hydraulic control of the core plume which will ensure that the core plume, south of Thompson Road, does not migrate or threaten to impact downgradient domestic wells or water quality. These proposed CAO requirements render any further actions or requirements redundant and unnecessary downgradient of the core plume.

PG&E agrees that controlling the core plume in order to protect public health and water quality from the potential migration of the core plume is a top priority for the remediation project. To this end, PG&E has been maintaining hydraulic control of the core plume through groundwater extraction and agricultural treatment north of Highway 58. PG&E is committed to continue these operations and is expanding the extraction and agricultural treatment to enhance hydraulic control and chromium treatment south of Highway 58. Since 2012, hydraulic control of the core plume has been rigorously documented through continuous measurement of water levels and monthly evaluation of hydraulic capture metrics, per Board Order No. R6V-2008-0002A3. PG&E, in coordination with the LRWQCB, is working to optimize pumping and continues to document and work to contain core plume. The extraction and treatment carried out to date has resulted in a shrinking plume and greater protection of domestic wells from plume migration.

PG&E also recommends that groundwater sampling continue to be conducted surrounding the core plume and in key locations downgradient of the plume core as an additional level of protection (CH2M Hill 2014). Domestic well sampling of more than 400 domestic wells (producing more than 4,770 domestic well sample results) to date has confirmed that no privately owned domestic wells at the Hinkley Site, including the area north of the core plume, have chromium concentrations that exceed the drinking water standards for hexavalent chromium (Cr[VI]) or total chromium (Cr[T]). Domestic well sampling will serve as an additional level of protection for public health.

PG&E has conducted extensive outreach over many years to the Hinkley community. Through this outreach, we have learned that PG&E's offer to supply RO units to households in the Water Valley Study Area had moderate reception, because many people had already addressed their general water quality issues, such as hardness and taste and odor concerns, by using water softeners, RO units and/or bottled water. During outreach, we learned that many households eligible for RO units were already using RO units, a common method for treating well water in high desert areas. Since the domestic well sampling results show that Cr[VI] and total chromium (Cr[T]) remain consistently below the MCL, PG&E is concerned that overly persistent efforts to provide RO units to address potential concerns regarding chromium levels in well water is likely to cause undue alarm. Under the various programs of the last few years, all residents in this area under discussion have already been offered the chance to have a water treatment system provided to them. Offering RO units to address chromium at levels consistently below applicable chromium MCLs creates undue alarm and unnecessarily casts doubt on data which shows the chromium is consistently below drinking water standards. Although PG&E has continued the offer to provide RO units in the Water Valley Study Area, and is prepared to offer RO to residents down gradient of the plume if the RWQCB requests it, PG&E is concerned about the unintended message it may be sending. We look forward to discussing this topic on May 28th.

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PG&E strongly believes that funding the United States Geological Survey (USGS) background study is an important step towards resolving the uncertainty that still remains in the Northern Hinkley Valley. The USGS will generate information that will help to resolve outstanding questions about the source of chromium in this area. During this interim period, PG&E is open to discussing other potential avenues of providing reliable, scientific information regarding naturally occurring chromium in groundwater to resident's downgradient of the core plume area while the background study is being conducted. PG&E does not recommend conducting additional remedial activities or additional investigation beyond the background study in this area because PG&E believes that the currently planned groundwater extraction and agricultural treatment of the core plume, coupled with regional groundwater monitoring and domestic well sampling, will provide residents in the Water Valley Study Area with confidence that their wells are not impacted by chromium migrating from the core plume area.

PG&E looks forward to discussing these options at the public workshop on May 28. Please feel free to call me at (510) 239-9738 if you have any questions regarding the information presented in this letter.

Sincerely,

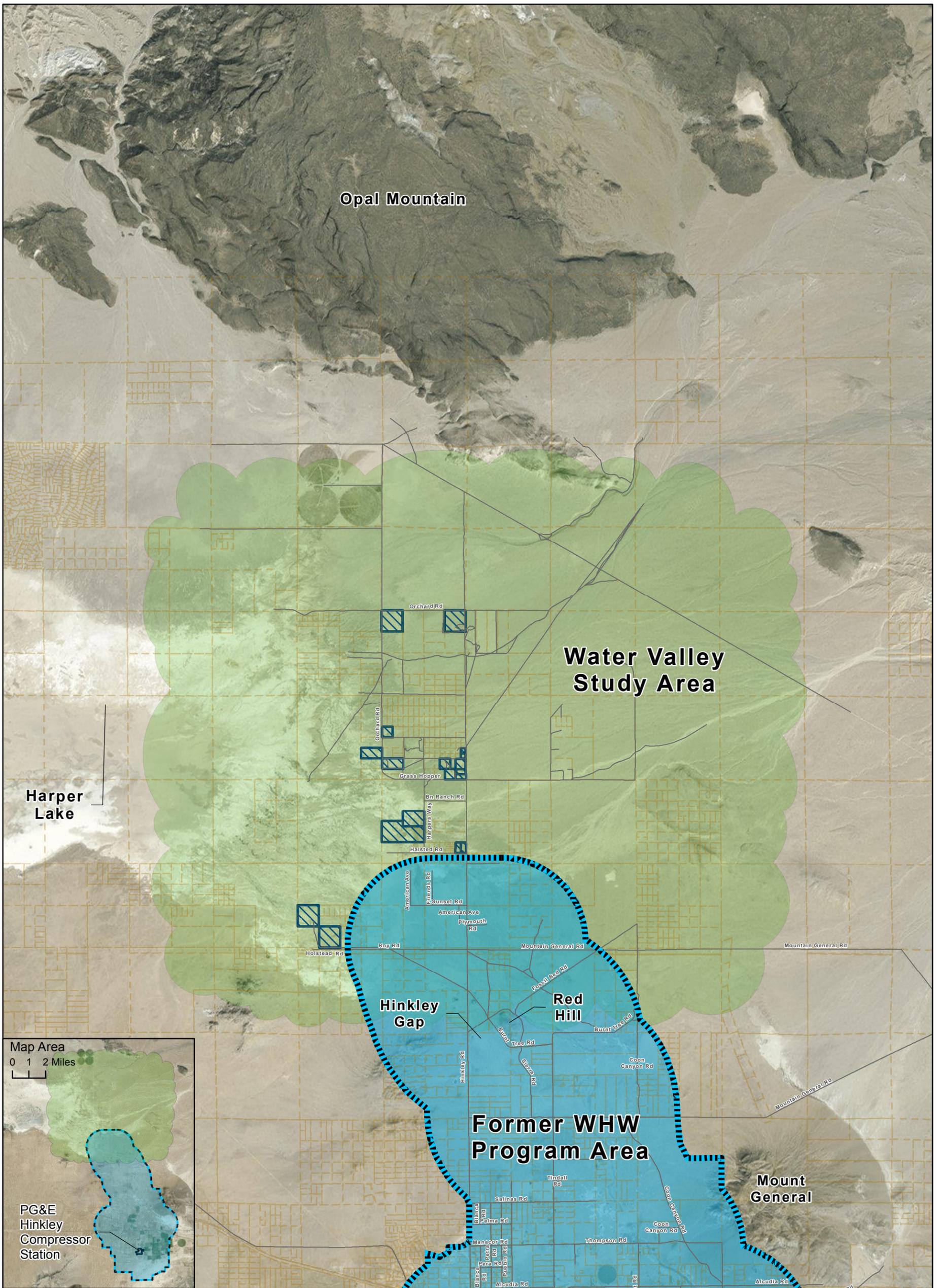
A handwritten signature in blue ink that reads "Betsy Brunswick". The signature is written in a cursive style.

Betsy Brunswick

References

CH2M Hill. 2014. Draft Groundwater Monitoring and Reporting Program, Pacific Gas and Electric Company Hinkley Compressor Station, Hinkley, California. December 19.

Pacific Gas and Electric Company. 2014. Northern Area Investigation Proposal, Pacific Gas and Electric Company Hinkley Compression Station, Hinkley, California. January 17.



 Potentially Occupied Parcel
 Within Water Valley Study Area
 (occupancy estimates based on field verification)

 County Parcels

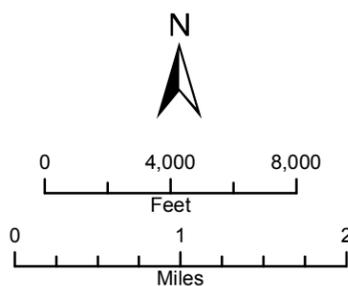


FIGURE 1
WATER VALLEY
STUDY AREA
 PACIFIC GAS & ELECTRIC COMPANY
 HINKLEY REMEDIATION PROJECT
 HINKLEY, CALIFORNIA