CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION
MEETING OF JANUARY 16-17, 2013
BARSTOW, CA

ITEM: **9**

SUBJECT: **SUMMARY OF PUBLIC COMMENTS/ISSUES AND DISCUSSION ON APPROACH TO FINALIZE DRAFT ENVIRONMENTAL IMPACT REPORT, FINAL GROUNDWATER CLEANUP STRATEGY FOR HISTORICAL CHROMIUM DISCHARGES FROM PACIFIC GAS & ELECTRIC COMPANY'S HINKLEY COMPRESSOR STATION, SAN BERNARDINO COUNTY**

CHRONOLOGY: This chronology lists Water Board actions related to requiring PG&E to develop a comprehensive cleanup strategy for chromium in groundwater.

Aug. 6, 2008	Cleanup and Abatement Order (CAO) No. R6V-2008-0002 directed PG&E, among other things, to develop and implement a comprehensive cleanup strategy for chromium in groundwater.
Nov. 12, 2008	Amended CAO R6V-2008-0002A1 established background chromium concentrations against which cleanup strategies are assessed.
Nov. 24, 2010	Water Board staff circulated a CEQA Notice of Preparation to interested parties and agencies, requesting input on the scope and content of an environmental document for comprehensive cleanup of waste chromium in groundwater.
Aug. 21-Nov 5, 2012	Draft EIR released for 75-day review and comment period.

BACKGROUND: Since late 2010, Water Board staff, with their consultant, has been developing a California Environmental Quality Act (CEQA) Draft Environmental Impact Report for comprehensive groundwater cleanup in Hinkley. The Draft EIR describes the cleanup Project's goals and objectives, provides details on five "action alternatives" to meet those goals, and discusses impacts associated with each alternative. Ways to avoid or reduce impacts (called "mitigation measures") are outlined.

The Draft EIR was circulated in late summer and fall 2012 for a 75-day review period. Water Board staff held five public meetings at the Hinkley School to hear input and provide information on the Draft EIR.

The discussion below provides a brief summary of the public and agency comments received during the comment period, and provides a recommended approach for finalizing the EIR.

DISCUSSION:

Comments and Issues. Approximately 45 individuals and agencies provided comments in the form of letters, emails, comment cards at submitted public meetings, and verbal comments transcribed from the September 12, 2012 Water Board meeting. The majority of individual commenters were Hinkley area residents. Agency comments were received from the California Department of Fish and Game, the Native American Heritage Commission, and the Mojave Desert Air Quality Management District. PG&E staff also submitted comments, as did the Hinkley Community Advisory Committee, through their consultant. Enclosure 1 is a summary of the comments received.

Water Board staff and their consultant are developing responses to all comments, which will be included in the final EIR. Several key issues have been identified that will require additional information or analysis. At this time (mid-December), it is not anticipated that these issues will delay currently scheduled early April 2013 release of the final EIR. The key issues are:

- Delineating byproducts plumes related to existing in-situ remediation.
- Expanding the project area to potentially allow additional remediation to the north of the current Project boundary.
- Evaluating a basin-wide approach to mitigation measures for impacts related to agricultural activities, following completion of the Chromium Cleanup Project.
- Investigating additional hydrogeologic modeling to better understand the potential for aquifer compaction due to groundwater extraction for remediation.
- Feasibility screening of an additional aboveground treatment technology.

Staff and consultants are actively working to address these issues for inclusion in the final EIR.

Approach to Finalizing the EIR. The Draft EIR does not identify a preferred alternative, and instead analyzes the impacts of each alternative in the same level of detail. **Staff recommends that the Water Board retain this approach in the final EIR, and certify the EIR without identifying any preferred alternative.** Certification of the EIR would consist of the Water Board making a

determination that: 1) the final EIR has been completed in compliance with CEQA; 2) the Water Board reviewed and considered the information contained in it; 3) and that the EIR reflects the Water Board's independent judgment and analysis.

This approach allows the Water Board maximum flexibility to direct PG&E to implement the full range of remediation methods analyzed in the DEIR over the entire Project area. The Water Board can then adopt a General Permit for remediation activities that sets limits on allowable impacts, requires mitigation measures and monitoring, and in issuing its cleanup and abatement order (CAO), can set cleanup levels and timeframes to meet those levels. PG&E could then use any combination of the technologies analyzed in the DEIR to meet those requirements, as long as the selected technologies adhere to the impact limits and timeframes specified in the WDRs and CAO.

RECOMMENDA-TION: This is an information item only. The Water Board may provide direction to staff as appropriate.

ENCLOSURE:

Enclosure	Item	Bates Number
1	Summary table of DEIR comments	**9-7**

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ENCLOSURE 1

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Enclosure 1. Draft EIR Comments Summary

This enclosure summarizes key comments from agencies and individuals received during the 75-day public comment period (August 21, 2012 to November 5, 2012) for the Draft Environmental Impact Report (DEIR). This is not a summary of every individual comment submitted on the DEIR, but is intended to provide a general sense of the nature of comments received. All comments submitted on the DEIR will be responded to and included in the Final EIR.

The comments are separated into three categories: 1) Agency Comments, 2) Individual Comments, and 3) Questionnaires and Surveys. The agency comments comprise those received from both state and local agencies. Individual comments include letters, emails, petitions signed by Hinkley community residents, comments cards received at public meetings, and oral comments made at a Lahontan Regional Water Quality Control Board (Lahontan Water Board) Public hearing for the DEIR on September 12, 2012. The public questionnaires were developed by the Lahontan Water Board on DEIR alternatives. The surveys were developed by a Hinkley Community resident to gauge the preference of the Hinkley Community on DEIR alternatives and the remediation process. The Lahontan Water Board received comments from three agencies and 36 individuals, five responses to the questionnaires, and 88 surveys.

Agency Comments

California Department of Fish and Game (CDFG)

- Protocol level surveys need to be conducted during appropriate times and using appropriate data sheets to support agency permitting.
- An Incidental Take Permit (ITP) is required from CDFG for the Desert Tortoise.
- The CDFG recommends:
    - Early consultation to determine the need to conduct a Streambed Alteration Agreement for the Project.
    - Alternatives that have the least impact on biological resources and species habitat.
    - Changes to biological resources mitigation measures that reflect concerns regarding protocol level surveys, ITP, and an onsite qualified biologist.
    - Analyzing the cumulative effects of Barstow General Plan buildout and of increased predators from Desert View Dairy, Nursery Products and Abengoa Solar.

Native American Heritage Commission (NAHC)

- The NAHC suggests that the Lahontan Water Board make an effort for early consultation, regular meetings and informal involvement with Native American Tribes.
- The NAHC recommends avoidance of areas where Native American cultural resources are found.

- The NAHC recommends confidentiality of historic properties of religious and cultural significance.

Mojave Desert Air Quality Management District (MDAQMD)

The MDAQMD concurred with the mitigation for air quality impacts and had no further comments.

Individual Comments

- *Air Quality:*
  - Requests for explanations of how air quality emissions were calculated. Unclear if they were calculated correctly.
  - AIR-MM-3 should be consistent with California Air Resources Board airborne toxic control measures for truck idling.
- *Alternatives*:
  - Various opinions about ongoing and proposed remediation efforts, ranging from stop all in-situ treatment, to clean it up as fast as possible, to finding a balance between fast clean up and environmental protection.
  - Comments suggesting modifying Alternative 4C-3 and Alternative 4C-5 to include the use of electrocoagulation (EC) as opposed to chemical ex-situ treatment.
  - Requests that the EIR identify a single environmentally superior alternative.
  - Requests that the "CEQA Project" be better defined.
  - Petitions stating that the Hinkley Community requests that PG&E clean the plume with the least amount of impact on the environment and byproducts in the aquifer and prefers that the plume be cleaned properly and in its entirety taking due caution not to make things worse for the community or its wildlife.
- *Biological Resources:* Concerns of inadequate biological resources evaluation of properties as part of the PG&E buyout program. Concerns regarding impacts of Project on wildlife and species habitat.
- *Cultural Resources:* Suggests that mitigation not require cultural resources surveys in areas where no remediation or construction activities are proposed.
- *Cumulative Impact Analysis:* Comments that the cumulative impact analysis should include past, present, and reasonable foreseeable future projects. The analysis should recognize and discuss all existing and any previous water board orders, and related remediation activities completed by PG&E in the Hinkley Valley.
- *Flexible EIR:* Requests for a flexible EIR, one that incorporates new information as it is discovered (i.e., background study results)
- *Other Comments*: Requests that the Water Board have full time onsite manager for Project who is a direct liaison with the Community Advisory Committee.

- *Water Quality and Water Resources*
  - Background Study: Opinions on new PG&E background study, such as complete background study first, then use the information to develop the EIR or incorporate background study results into an addendum to the EIR if already finalized.
  - Chromium Plume Delineation:
    - Project area needs to be expanded to include new chromium detections.
    - Requests for increased monitoring efforts to better identify the chromium plume boundaries.
    - Comments on insufficient information as to how the plume labeled as "approximate" was determined in the northern portion of the plume.
    - Concerns that plume is moving west toward school/homes. Residents presented sampling results from laboratories that show Cr levels west of the plume (e.g. Flower Road).
    - Requests for an independent entity, not PG&E or PG&E-affiliated, to conduct monitoring efforts to determine chromium plume boundaries. Some comments suggested this entity should be the U.S. Geological Survey and/or the USEPA.
  - IRZ and IRZ byproducts:
    - Suggestion that insitu remediation efforts be halted until more information is found on impacts on byproducts.
    - Concerns about treatment byproducts (e.g., manganese, arsenic) in the groundwater, such as the identification of baseline manganese and arsenic levels, identification of current manganese and arsenic plume boundaries, and the understanding of “temporary” manganese impacts.
    - Significance threshold distances should be expanded to 1 mile (like for chromium)
    - Several residents provided well sampling results from laboratories.
    - Requests for clarification about the toxicity of manganese.
    - Would like complete list of constituents injected into water as part of IRZ.
    - Potential hazards associated with ethanol storage, transportation, and use should be considered in the EIR (Ethanol is flammable).
    - Requests that a Health Risk Assessment (HRA) be conducted for potential exposure pathways, such as byproducts.
  - Groundwater Analysis:
    - The Water Board should conduct a complete analysis of groundwater in all areas concerned by Hinkley citizens.
    - Groundwater elevation monitoring may be inadequate and possibly inaccurate. Elevation monitoring needs to be done with automated real-time logging equipment.

- Water Replacement:
  - Urges Water Board to hear the community's voice and advocate to resolve the problem of providing safe drinking water to all the residents of Hinkley.
  - Comments that project has affected the community, property values, clean up takes a long time, PG&E should have offered to build new water system years ago and fewer people may have left.
- Aquifer Impacts: Concerns on aquifer drawdown and compaction.
- Impacts of Water Quality Mitigation: EIR should consider impacts of mitigation measures for remediation of byproducts like manganese.

PG&E Key Comments

- *Agriculture and Farmland*: Requests to revise mitigation measures to require easements if there have been a net loss of such existing important farmland. Remediation may increase use of existing important farmland.
- *Air Quality:* Specific comments on calculation air quality emissions.
- *Alternatives:*
  - Suggests that Alternatives 4C-2, 4C-3 and 4C-4 be ranked with less severity than 4B because they include increased extraction and thus decreased potential for spreading of plume when compared to Alt 4B.
  - Need to recognize potential to optimize remedial actions to reduce byproduct generations

Biological Resources:

- Disagrees with impact conclusion regarding desert tortoise corridor due to existing disruptions to movement and unproven use as a corridor.
- Suggests that rather than stating requirements for pesticide management and wildlife protection plans, that the requirements be kept as part of permit requirements.

- *Flexible EIR*: Requests for a flexible EIR, one that incorporates new information as it is discovered and allows for potential basin-wise adaptation over time to address remediation impacts.
- *Geology and Soils:* Requests to revise GEO-MM-1 to set forth Water Board process for determining if subsidence is caused by remedial activities.
- *Greenhouse Gas Emissions:* Remove requirement for review/approval of greenhouse gas plan by San Bernardino County Planning, and instead list required reports, reduction amounts, etc.
- *Water Resources and Water Quality:*
  - Aquifer Drawdown: Concerns that estimated maximum drawdown at scaled flows are overly conservative.

- Aquifer Compaction: Characterization of northern part of aquifer may not be accurate which may reduce potential for subsidence and compaction.
- Significance Thresholds for Chromium. Disagrees with EIR statement that MCL for total chromium is outdated. PG&E also suggests certain specific revisions and also requests certain amendments to significance thresholds including the use of the MCL as the significance criteria for Cr6 when adopted.
- Restoration of Aquifer: States that WTR-MM-4's requirement of 10 years of aquifer restoration is too short.
- Nitrate/TDS Mitigation: Requests to revise WTR-MM-6 to add language that nitrate and TDS levels in aquifer should be treated on a basin-wide approach.
- Impacts of Mitigation: EIR should consider impacts of water quality mitigation measures, especially concerning aboveground treatment for TDS (Reverse osmosis or other means).

Questionnaires and Surveys

The following section summarizes results for the public questionnaires and surveys received during by the Water Board during the DEIR public comment period.

Questionnaires

The public questionnaires from the Lahontan Water Board asked the following questions:

1. Do you plan to read the draft EIR?

2. Would you rather the Cr contamination clean up time be?

   a) Quick regardless of environmental impacts
   b) Balanced between speed and environmental impacts
   c) Long and avoid impacts
   d) Not sure
   e) Don't care

3. Which cleanup option in the DEIR affecting the entire plume do you prefer (rank 1 for most favorite and 6 for least favorite)?

   a) No Project
   b) 4B
   c) 4C-3
   d) 4C-4
   e) 4C-5

4. Which environmental impacts are you willing to accept as part of the final Cr cleanup strategy?

   a) Temporary lowering of water table.
   b) Permanent lowering of water table with aquifer compaction.
   c) Loss of domestic well use, but maintenance of use for landscaping. Alternate water supply for domestic use, with water supply restored in future.
   d) Loss of desert tortoise and Mojave ground squirrel habitat with possible land swap elsewhere for habitat.
   e) Some temporary byproducts to groundwater (GW) from in-situ remediation with water quality (WQ) restored in future.
   f) Lots of temporary byproducts to GW from in-situ remediation with water quality restored in future. Mitigation and possible alternate water supply until WQ is restored.
   g) Some temporary total dissolved solids (TDS) increase in GW from additional ag fields with WQ restored in future.
   h) Lots of temporary TDS increase affecting GW quality from many additional agricultural fields. Alternative water supply until WQ is restored.
   i) Leaving chromium in aquifer at the source area as solid Cr3.
   j) Leaving chromium in the soil at ag until areas as solid Cr3.

Only 5 questionnaires were received, with the following results:

- Reading the DEIR: Two planned to read most of the DEIR, two said they might read the DEIR, and one said they would not read it.
- Cleanup time: Three said they prefer the cleanup to be balanced between speed and environmental impacts, one said to take time and avoid impacts and one did not answer.
- Alternative Choice: Two stated their first choice as Alternative 4C-5 and their last choice as the No Project Alternative. Two stated their first choice as Alternative 4C-3. One did not answer.
- "Acceptable" impacts (number of respondents indicating acceptable):
  - Temporary lowering of water table (2)
  - Loss of domestic well use, but maintenance of use for landscaping with alternate water supply for domestic use, with water supply restored in future (1)
  - Loss of desert tortoise and Mojave ground squirrel habitat with possible land swap elsewhere for habitat (1)
  - Lots of temporary byproducts to GW from insitu remediation with water quality restored in future. Mitigation and possible alternate water supply until WQ is restored (1)
  - Respondents either indicate none, 1 or 2 "acceptable" impacts. None indicated more than 2.

- One questionnaire stated the respondent was not willing to accept any environmental impacts.
- Several of the questions in the questionnaires had unanswered questions.

Community Surveys

The survey prepared by a Hinkley community member has the following results (**bolded text indicates** the most common answer).

- Speed of remediation (number respondents):

  1) quick regardless of environmental impacts (21)

  2) balanced between speed and environmental impacts(8)

  3) long and avoid impacts (30)

  4) no results (29)

- Choices regarding leaving Cr3 in the soil/aquifer post remediation

  1) Remove Cr3 (48)

  2) leave Cr3 (11)

  3) not sure (25)

  4) no response (4)