

June 20, 2014

Ms. Lisa Dernbach, P.G.
Ms. Lauri Kemper, P.E.
California Regional Water Quality Control Board, Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, California 96150

Subject: IRP Manager's Comments Regarding Letter entitled "Technical Memo, *Former Waste Pit Groundwater Investigation Pacific Gas and Electric Company, San Bernardino County*" issued by California Regional Water Quality Control Board, dated June 3, 2014

Dear Ms. Dernbach and Ms. Kemper:

The IRP Manager is submitting the following comments to the Lahontan Regional Water Quality Control Board (the Water Board) regarding the subject technical memorandum¹ (the Water Board's Letter, hereafter) regarding the area named "Former Waste Pit". The Water Board's Letter codified your approval of the sampling plan for groundwater in the vicinity of the Former Waste Pit at monitoring location MW-163S/D.

This letter describes: 1) concerns relayed to the IRP Manager by the Community Advisory Committee (CAC) about the decision made by the Water Board; and 2) technical comments and recommendations from the IRP Manager. They are addressed in detail as follows:

1) The CAC is concerned that the number of sampling points described in the Water Board's Letter *may not* be sufficient to define any potential Former Waste Pit plume which *could* exist.

The Water Board's Letter approved the Scope of Work described in Pacific Gas and Electric Company (PG&E)'s submitted Technical Memorandum² (Stantec, May 1, 2014), which proposes quarterly sampling of monitoring wells

¹ California Regional Water Quality Control Board, Lahontan Region. 2014. *Technical Memo, Former Waste Pit Groundwater Investigation, Pacific Gas and Electric Company, San Bernardino County*. June 3.

² Stantec. 2014. *Technical Discussion and Scope of Work to Evaluate Groundwater Quality in the Area of the Former Waste Pit – Investigation Order R6V-2014-0019*. May 1.

MW-163S/D for one year. According to the original Investigative Order³ (IO) No. R6V-2014-0019 issued by the Water Board, twenty one wells (13 domestic and 8 monitoring wells) are required to be sampled quarterly for Title 22 Metals, Cr6, CrT, PCBs, TDS, TPH and VOCs. The CAC is concerned that the number of sampling points has been prematurely reduced from 21 to 2 per the Water Board's acceptance letter; and therefore this plan *may not* be of sufficient scope to properly delineate any potential release from the Former Waste Pit which *may have* impacted groundwater.

Shown in **Attachment 1** are the locations of MW-163S/D and the rest of the sampling points from IO No. R6V-2014-0019. It should be noted that most of the domestic and monitoring wells that were requested to be sampled in IO No. R6V-2014-0019 were already sampled during the 1st Quarter of 2014 as part of the overall Groundwater Monitoring Program for PG&E's Compressor Station's Discharge assessment. Since the majority of the wells (except for the domestic wells 34-20, 34-60 and 34-76) are already being sampled under the Program, the effort to analyze for the additional constituents required in IO No. R6V-2014-0019 may not be significant. Therefore, ***the CAC wishes to see the sampling plan established in the Water Board's IO No. R6V-2014-0019 implemented at the Former Waste Pit area, and replace the sampling plan described in the Water Board's Letter.***

Furthermore from their technical learning and discussions with the IRP Manager, the CAC would like to see the following wells considered or installed for sampling:

- Domestic well 34-25 located near the Former Waste Pit area (starting 3rd Quarter 2014) – Historically, this well has reported Cr6 and CrT levels above 6.0 ppb.
- One new well located upgradient of the Former Waste Pit - The CAC realizes that there is no monitoring well upgradient of the Former Waste Pit to establish a baseline for groundwater quality near the Former Waste Pit area. The CAC suggests that a minimum of one monitoring well be installed and monitored.

The above remarks and recommendations from the CAC have resulted from the technical discussions between the CAC and IRP Manager over the past two months as the issue of optimally assessing any potential groundwater impacts

³ California Regional Water Quality Control Board, Lahontan Region. 2014. *Comments on Report for Cleanup of Waste Pit (Western Excavation Site), Pacific Gas and Electric (PG&E), San Bernardino County (Assessor Parcel No.0488-074-03), WDID No.6B361403001 Investigative Order No. R6V-2014-0019.* March 5.

from any releases that may have occurred from the Former Waste Pit has grown in importance within the Hinkley community.

2) In addition to briefing the CAC and other interested Hinkley residents, the IRP Manager's technical Team has been evaluating (consistent with the IRP Manager's mission) how to most cost-effectively investigate groundwater conditions in the vicinity of the Former Waste Pit. Therefore, the IRP Manager offers the following comments regarding the Water Board's Letter:

1. If the results from MW-163S/D indicate that groundwater quality has been impacted by the Former Waste Pit, then the "Iterative Approach" proposed by the Water Board should be implemented for the sampling program. This approach is in agreement with the Water Board's Letter, which states that *"Should the results of those samples indicate that there has been an impact to water quality from the Pit, additional monitoring wells, such as groundwater monitoring wells MW-159S/D and MW-167S1/S2/D, may also need to be sampled to determine the extent of the impact."*

Perhaps a decision tree could be created which could be used to think through where such an iterative approach would lead regarding well sampling and possible new monitoring well placement; i.e. if this data, then this action?

2. If the results from MW-163S/D show impacts to groundwater quality, then a comprehensive evaluation should be planned and implemented to assess the impacts to groundwater. The evaluation should include upgradient, near source and downgradient wells to fully delineate any impacts to groundwater. (i.e. implement a phased program, contingent on collected data, but which has the "sentinel data" from MW-163S/D becoming critical in future planning. Such planning would involve, as appropriate, and to the right extent, the Hinkley Community.)
3. It is the IRP Manager's understanding that the U.S. Geological Survey (USGS) is planning sampling activities as part of the Background Study in the areas near the Former Waste Pit. Such independently collected USGS data (water quality, tracers, lithology, etc.) could assist in improved understanding of any potential source(s) and flows of Cr6 in groundwater in the area. The IRP manager recommends that PG&E and the Water Board discuss USGS's planned sampling in the vicinity of the Former Waste Pit to formulate a groundwater assessment effort that may be acceptable to the project stakeholders.

As the IRP Manager, with a specific focus on the historic release from the Compressor Station and all the ensuing GW assessment and remediation activities, we recognize that our mission in serving the Hinkley Community and the project is to focus, understand, evaluate, educate and comment on the main remedial program. The subject issue regarding the Former Waste Pit, located cross gradient to the main Cr6 release, is therefore not directly within the IRP Manager's work scope. However, given the growing perceptions (as not yet validated) within the Community that there is a linkage between PG&E's activities and the Former Waste Pit, the IRP Manager intends to invest some effort into facilitating a better understanding of this issue.

The IRP Manager proposes to review the existing information and data to formulate a conceptual site model (CSM) focused on the Waste Pit and its surroundings. We think this CSM can be of use in the education process. The CSM will help explain to Community Members such issues as, "the well screen interval needs to be appropriately located to sample possible Cr6 releases," and often an "appropriate screening interval" is not offered by domestic wells, whose purpose is water supply, which is typically delivered via a long, deeper, screen interval.

Should you have any questions or comments, please feel free to contact either of the undersigned via email or phone as provided below:

Raudel Sanchez: rsanchez@projectnavigator.com, 714-388-1821

Ian A. Webster: iwebster@projectnavigator.com, 714-863-0483

Sincerely yours,



Raudel Sanchez, Ph.D.
Project Manager



Ian A. Webster, Sc.D.
Hinkley IRP Manager

Attachments

Attachment 1: Location of the Former Waste Pit Area Relative to the Groundwater Monitoring Points Proposed in the Water Board's Investigative Order R6V-2014-0019

CC:

CAC Members

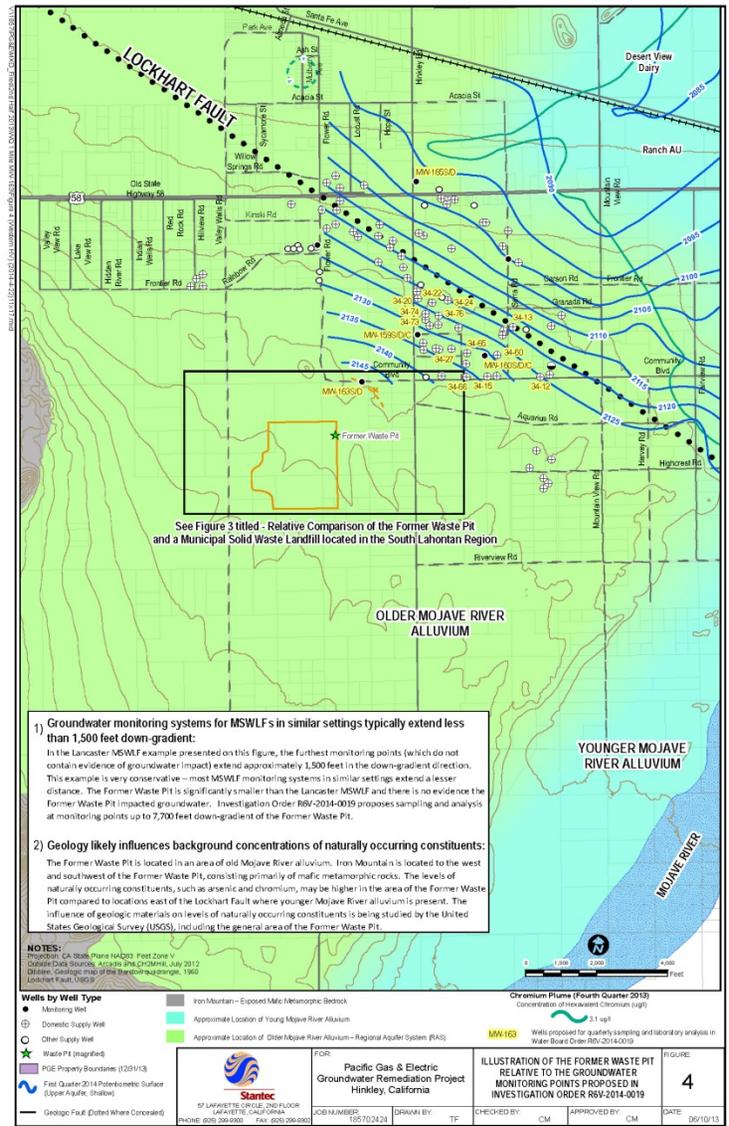
Kevin Sullivan, PG&E

Devin Hassett, Keadjian and Associates

John Izbicki, USGS

ATTACHEMENTS

Location of the Former Waste Pit Area Relative to the Groundwater Monitoring Points Proposed in the Water Board's Investigative Order R6V-2014-0019



Source: Stantec.2014. *Technical Discussion and Scope of Work to Evaluate Groundwater Quality in the Former Waste Pit – Investigative Order R6V-2014-0019*. May 1.