

Lahontan Regional Water Quality Control Board

February 20, 2013

REQUEST FOR PUBLIC COMMENTS **Modification of Whole House Replacement** **Cleanup and Abatement Order** **(R6V-2011-0005A1 & R6V-2011-0005A2)**

The Lahontan Regional Water Quality Control Board (Water Board) received two letters from the Pacific Gas and Electric Company (PG&E) requesting modifications to the Whole House Replacement Water Cleanup and Abatement Order R6V-2011-0005A2, and related monitoring plans. The Water Board Executive Officer is soliciting comments on these proposed modifications to determine if changes to the Orders should be made.

Background

Between 1952 and 1966, PG&E used hexavalent chromium, also known as chromium 6, to fight corrosion in cooling tower water near Hinkley. The wastewater from the cooling towers was discharged to unlined ponds at the site. Some of the wastewater percolated to the groundwater, resulting in hexavalent chromium pollution. The chromium affects an area of groundwater more than five miles long and nearly two miles wide.

On June 6, 2012 the Water Board issued an amended CAO to PG&E requiring the utility to implement an expanded whole house replacement water program for households in Hinkley, California. The CAO requires PG&E to provide whole house water to over 200 households. The residents are eligible to receive whole house replacement systems that will meet drinking water standards. Residents may choose between a new installed (deeper) well or a combination reverse osmosis/ion exchange treatment system.

SUMMARY OF REQUESTS

- 1) January 10, 2013 letter from PG&E proposing to amend the whole house replacement water monitoring plan to change the reverse osmosis and ion exchange leachate monitoring frequency.
- 2) February 7, 2013 letter from PG&E proposing four modifications to the whole house replacement water program as follows:
 - 90 day extension of all applicable deadlines to reexamine the whole house replacement water options
 - For residents who have elected an ion exchange-reverse osmosis unit (RO), that they be allowed to decline installation on the RO unit
 - Requirements for interim water replacement (bottled water) be satisfied by providing commercially available bottled drinking water, without requiring additional testing to ensure that the bottled water have non-detectable levels of hexavalent chromium
 - Re-evaluate use of one-mile buffer zone from plume boundary for whole house replacement water program

Please submit comments to Patty Zwarts Kouyoumdjian, Executive Officer, by way of either email (patty.kouyoumdjian@waterboards.ca.gov) or mailed/hand delivery to the South Lake Tahoe office. Comments must be received by close of businesses on March 20, 2013. If you have any questions please contact Mike Plaziak, Supervising Engineering Geologist, at either (760) 241-7325 or mike.plaziak@waterboards.ca.gov.

Attachments:

1. January 10, 2013 letter from PG&E
2. February 7, 2013 letter from PG&E with attachments (PG&E's 28-page Western Area Technical Memorandum of January 28, 2013 is available from the Water Board's public webpage at http://www.waterboards.ca.gov/lahontan/water_issues/projects/pge/index.shtml under the heading, "Other Documents")



**Pacific Gas and
Electric Company**

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January 10, 2013

Ms. Patty Kouyoumdjian
Executive Officer
California Regional Water Control Board, Lahontan Region
2401 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

Re: Whole House Replacement Water (WHRW) Monitoring
Proposal to Amend Reverse Osmosis and Ion Exchange Leachate Monitoring

Dear Ms. Kouyoumdjian:

Pacific Gas and Electric Company (PG&E) has installed WHRW ion exchange (IX) and undersink reverse osmosis (RO) systems at two eligible properties and has been monitoring these systems according to the monitoring plan included in the June 2012 Replacement Water Supply Feasibility Study Update ("Feasibility Study"). Based on our experience to date, there are two changes to the monitoring plan we feel would be beneficial for the overall effectiveness of the program and to minimize the inconvenience to Hinkley residents. The proposed modifications are detailed below.

Ion Exchange Resin Leachates Monitoring

The monitoring plan includes sampling at specified locations for ion exchange resin leachate constituents during startup of the WHRW system. The objective of IX resin leachate monitoring is to ensure that the vendor's resin does not leach constituents in excess of State or Federal maximum contaminant levels (MCLs). The current monitoring plan requires testing for resin leachates at three different locations in the WHRW system during the system start-up. There is no requirement to perform subsequent resin leachate testing.

PG&E procures National Sanitation Foundation (NSF) certified IX resin in batches to fill multiple WHRW IX treatment vessels used throughout the program. Each resin shipment is accompanied by a vendor Certificate of Analysis that includes the batch identification number, resin capacity, moisture content, and resin integrity. Since resin leachates will be specific to each batch, PG&E proposes that leachates be monitored on a batch basis, rather than at each home during startup. PG&E will work with the resin supplier to establish protocols for collecting representative samples and performing laboratory analysis consistent with the leachate constituents identified in the Feasibility Study monitoring plan. The batch test results will be included in future quarterly WHRW Monitoring Reports required under CAO RGV-2011-0005A1, Paragraph 2.g.

The benefits associated with monitoring leachates on a batch basis include:

- Resin would be tested throughout the program life rather than only at system start-up. While start-up testing provides confidence that the resin does not contain leachates above MCLs, testing each batch would provide greater certainty that all the resin used in subsequent media replacements would also comply with water quality standards.
- Start-up and sampling of the WHRW systems and inconveniences to Hinkley residents would be significantly reduced. The current monitoring plan calls for obtaining IX resin leachate samples downstream of both IX vessels and at each under-sink RO unit in the home. Monitoring for resin leachates takes between one and two hours per location. With up to five RO units installed in the homes, leachate monitoring can add up to 5 hours to the start-up process in each home.

Under-sink RO Unit Monitoring

As representatives of PG&E discussed with the Water Board on December 18, 2012, monitoring of the internal RO units at each installed location has proven to be a significant inconvenience to Hinkley residents. PG&E has made every effort to accommodate the residents preferred schedule for sampling the undersink RO units, including sampling after-hours and on weekends. One resident has already requested that no further sampling of the RO units be conducted. The monitoring plan proposed in PG&E's Feasibility Study called for bi-weekly monitoring of hexavalent chromium, total chromium and parameters that exceed 90 percent of State and Federal MCLs/SMCLs for the first six months and then quarterly for the remainder of the program. Depending on the number of RO systems installed in each home and the water quality parameters that need to be monitored, the time to collect under-sink RO samples for each home may vary between 30 and 60 minutes per unit. Per the current monitoring plan, the sampling technicians could be spending between 1 to 3 hours inside the homes on bi-weekly basis for the first six months.

PG&E is proposing the following changes to the monitoring plan to reduce inconvenience to homeowners:

- Monitor each under-sink RO unit during start-up for hexavalent chromium, total chromium and other water quality constituents of concern (above 90 percent of State and Federal MCLs/SMCLs as described in the Monitoring Plan). Sampling during start-up will confirm that the units are operating in accordance with their State certification before they are turned over to the residents.
- Monitor the under-sink RO unit in the kitchen every six months for hexavalent chromium, total chromium and water quality constituents of concern (above 90 percent of State and Federal MCLs/SMCLs as described in the Monitoring Plan). At the time of sample collection, PG&E will also service all of the units, replacing necessary cartridges per the manufacturer recommendations in an effort to minimize further disturbances to Hinkley residents.

In addition to minimizing the inconvenience to residents, justification for streamlining under-sink RO monitoring includes:

- **Under-sink RO Systems are State Certified** – The under-sink RO systems are certified by the State of California. The certification tests the system's ability to treat water containing elevated concentrations of constituents commonly found in drinking water. One of the intents of the State certification program is to provide residents reasonable assurance that a water treatment device can perform as indicated without burdening the homeowner with regular sampling. As part of State requirements, systems must be equipped with shutdown capabilities after a set amount of water has been processed. The indicator light and shutdown measures allow delivery of water of consistent quality that meets the drinking water standards for which the unit was certified.
- **Servicing the Under-sink RO Units in the Future** – Based upon concerns expressed to date, PG&E is concerned frequent monitoring during the first six months may jeopardize the relationship between PG&E and the resident. As water is consumed from these units, they will require periodic maintenance in order to maintain State certification. As a proactive measure, PG&E wishes to maintain a relationship with residents so units can be serviced in the future to ensure they are continually performing in accordance with State requirements and manufacturer claims.
- **Consistent Water Quality of Under-sink RO Systems** – For the recent installations, the individual under-sink RO systems were sampled and monitored to demonstrate consistent performance of the RO systems. To date, all under-sink RO units have met State and Federal MCLs/SMCLs for respective constituents of concern. Monitoring of the installed systems has shown infrequent and inconsistent detections of low concentrations of hexavalent chromium above 0.06 µg/L. As reported to the Water Board, PG&E will continue to investigate the potential sources of hexavalent chromium utilizing various bench and full scale testing protocols at a PG&E owned, unoccupied residence and undertake appropriate measures to further reduce any detections.

PG&E would appreciate receiving the Water Board's approval of PG&E's proposal to modify the monitoring program for resin leachates and under-sink RO units by January 24, 2013 so that we can incorporate the changes in the next group of WHRW units scheduled for startup in late January 2013. Thank you for your consideration. Please do not hesitate to contact me at 760-253-7822 if you have any questions regarding this report, or if you need additional information.

I hereby certify that I have examined this report, and based on my examination and my inquiries of those individuals who assisted in the preparation of the report, I believe the report to be true, complete and accurate.

Sincerely,



Jeff McCarthy



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Chromium Remediation

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February 7, 2013

Patty Kouyoumdjian
Executive Officer
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd
So. Lake Tahoe, CA 96150

Re: Formal Request for Modification of Replacement Water Orders

Dear Executive Officer Kouyoumdjian,

Pacific Gas and Electric Company (PG&E) takes its responsibility for chromium contamination in the Hinkley community seriously and remains committed to continuing our significant progress on the cleanup. Working cooperatively with the California Regional Water Quality Control Board, Lahontan Region (Regional Board), the Independent Review Panel (IRP) Manager and the community of Hinkley, PG&E has implemented significant interim remedial actions to clean-up the groundwater contamination resulting from PG&E's historical operations at the Hinkley Compressor Station while also addressing the community's concerns about their drinking water. PG&E's bottle water program, launched in November 2012, and its voluntary Whole House Replacement Water (WHRW) program, launched in April 2012, successfully decoupled issues related to the groundwater cleanup from the concerns regarding the drinking water. The purpose of this letter is to request a 90-day period for PG&E to conduct an evaluation of the current WHRW program to incorporate what we have heard from the community. This evaluation will afford us the opportunity to take another look at the technologies that were originally analyzed in the Feasibility Study (June 2012) and incorporate lessons learned during the implementation and startup process. We strongly believe that taking the time now to assess the WHRW program will allow us to meet our shared commitment of ensuring that the WHRW program continues to meet the needs of the community.

In community meetings which both PG&E and the Regional Board attended in 2011, we heard two main messages from the community. Many community members asked for replacement water for household uses; but we also heard others wanted the option of having PG&E purchase their property. In response, last April, PG&E launched an unprecedented program to voluntarily provide WHRW treatment systems or property purchase for any resident that lived within 1-mile of the hexavalent chromium plume that had any detection of hexavalent chromium. To date, over 300 eligible residents (or roughly half of the town of Hinkley) have

elected to participate in our program. Further, just this week we expanded our program based on data collected during the 4th quarter of 2012 as presented in the February 6, 2013 Quarterly Monitoring Report. The newly potentially eligible residents (as reported in Attachment 1) have been notified of their potential eligibility for WHRW treatment systems and those not already receiving it have been offered interim bottled water.

While our WHRW program successfully met its objective of addressing concerns of residents whose domestic wells may be impacted by contamination potentially attributable to PG&E's historic releases, we have also heard feedback from residents that some aspects of our program, in particular the frequency of the ion exchange/reverse osmosis systems sampling, maintenance and monitoring requirements, are too intrusive. These concerns were raised by residents during the Regional Board meeting on January 15th in Barstow. Further, when we originally studied the feasibility of providing a permanent replacement water supply that would meet the Public Health Goal of 0.02 parts per billion (ppb) we assumed that most eligible residents would elect the water treatment option over property purchase. That assumption has proven to be inaccurate. To date, less than 15% of eligible households have elected to receive the water treatment option. This is an important change from the original scope of the Feasibility Study when we assumed 300 residents as part of our analysis. Having fewer residents may change the outcome of the comparative analysis and recommendation on the best replacement water technology.

From community feedback and our experience in implementing the program, there are legitimate concerns that ongoing system analysis, monitoring, maintenance and testing of the treatment systems pose an unreasonable burden on residents. PG&E seeks to modify the program in order to ensure that eligible residents have acceptable and effective replacement water options that will provide reasonable assurance that the quality of the water they have available in their homes in Hinkley is as good, or better, than they might find in nearby communities. It is important to note that we understand that many Hinkley residents who elected to have PG&E purchase their property are planning to move to Barstow and Apple Valley, where low levels of hexavalent chromium are regularly detected in available drinking water sources.

Given all of the factors listed above, PG&E believes that this is the right time to thoughtfully re-examine our program and incorporate lessons learned and feedback from the community. Further, taking the time now will not put anyone at risk given that all eligible residents who have requested bottled water are receiving interim bottled water. We will continue to implement the existing program for all residents identified to date, including those newly identified based on the 4th quarter 2012 plume map. However, it would be prudent at this point to take time to allow the Regional Board and the community to consider the changed circumstances set out above and to allow all residents that have elected the whole house replacement water option (36 residents have elected this option to date) the opportunity to avail themselves of acceptable improvements to our program.

As such, PG&E is proposing the following modifications to our Whole House Replacement Water Program:

- 1) PG&E requests a 90-day extension of all applicable deadlines during which it will re-examine the whole house replacement water options originally considered in the Replacement Water Supply Feasibility Study revised June 2012 and will present the results and recommendations to the Board in a Feasibility Study Addendum. This addendum will include an evaluation of a range of additional replacement water options, including, but not limited to: a) finding a new source of water south of PG&E's Compressor Station and b) trucking in water from Golden State Water in Barstow. During this time, PG&E would contact residents that have already elected a WHRW system and inform them of the evaluation and time frame for a Feasibility Study Addendum. If upon hearing of the evaluation, residents want to wait to have their WHRW unit installed, PG&E respectfully requests relief from applicable implementation deadlines currently applicable to the WHRW Program in order to provide the Regional Board and the community time to consider these additional options. Proposed modifications to relevant ordering provisions to accomplish this are set for on Attachment 4.
- 2) As to those residents who have elected an Ion Exchange-Reverse Osmosis Unit and do not want to wait for the Feasibility Study Addendum, PG&E requests that residents be allowed to decline the Reverse Osmosis (RO) units, which are designed to improve taste and odor but do not treat hexavalent chromium. As noted above, many residents have objected to the intrusive nature of these units and required sampling and monitoring. At a minimum, PG&E requests that the Regional Board approve the proposed modifications to the Ion-Exchange Leachate and Reverse Osmosis monitoring programs requested on January 10, 2013 in order to improve the effectiveness of the current program and reduce the inconvenience experienced by residents to date.
- 3) PG&E requests that the order requirements for interim water replacement (bottled water) be satisfied by PG&E's provision of commercially available bottled drinking water. It has been PG&E's experience that providing bottled water from prominent nationwide commercial vendors of bottled water service is an effective way of providing high quality water to meet drinking water needs and allay any concerns about drinking water quality. It is unfortunate that the additional and challenging order requirements, such as the requirement that bottled water have non-detectable levels of hexavalent chromium, creates unnecessary uncertainty and alarm in the community about the quality of bottled water service, which is no different from the bottled water they can purchase off the shelf from their local grocer.

- 4) PG&E requests approval to re-evaluate the need to expand the 1-mile buffer zone in the future. When we proposed our voluntary program in early 2012, we opted to offer our programs to residents living within a mile of the groundwater plume until such time that we had sufficient hydrogeologic data to provide certainty on the plume boundary. By extending our replacement water programs well beyond the plume boundary, it was intended to create a buffer to permit evolving data and analysis to inform the remediation process. As we discussed in our Western Investigation Report and Technical Memorandum (Attachment 2), PG&E believes that we now have sufficient data to demonstrate that the plume is not continuing to migrate to the West (as further discussed in Attachment 3).

PG&E has achieved several technical milestones in the past year, including the ability to demonstrate plume capture at Thompson Road as reported to the Regional Board beginning in April 2012. We have also sought to enhance our community engagement efforts to allow more information sharing and collaboration between PG&E, the Regional Board, the Community Advisory Committee (CAC), the IRP Manager and the United States Geological Survey (USGS) through technical working meetings. These meetings allow for all parties to transparently share information, openly discuss issues and find mutually agreeable solutions to various technical challenges associated with the project. The recent meetings on the Revised Background Study Work Plan and the series of meetings on the Manganese issue are excellent examples of this process. PG&E understands that the all parties have agreed to the path forward on the Background Study; and as such, we look forward to receiving your approval of the Revised Background Study Work Plan which updates the February 2012 Background Study Work Plan. PG&E strongly believes that implementation of a revised, peer reviewed Background Study is a critical step to ensuring that major project decision-making is based on sound science.

We share the mutual goal of ensuring safe, reliable drinking water for the residents of Hinkley and easing concerns about the quality of the water in their homes. While we believe the program has been extremely successful, we also believe that now is the time to re-examine the program, taking into account all that we have learned and heard from the community. We are committed to continuing to implement a program that meets the needs of the community and assures that the water in their homes is of comparable quality to the water available in other residential areas in the State of California. PG&E is bringing this urgent matter to your attention and is requesting administrative action and relief. In order to provide PG&E the opportunity to modify the WHRW Program in response to community feedback, we respectfully request relief from the relevant ordering provisions in the Cleanup and Abatement Orders R6V-2011-0005 A1 and A2 as specified in Attachment 4. Through this modification request, we hope to resolve our concerns at the Regional Board level. If PG&E's request is not granted, PG&E will seek relief under California Water Code Section 13320.

We look forward to your response and appreciate your timely consideration of our request.
Please contact me directly if you have any questions regarding this request.

Sincerely,

A handwritten signature in blue ink that reads "Sheryl Bilbrey". The signature is written in a cursive style with a large initial "S".

Sheryl Bilbrey
Director, Chromium Remediation

Attachment 1

These 40 households (list below) are newly within the WHRW program area and are potentially eligible for our program

APN	Property Owner Name	Street Number	Street Name
0489-082-59		21852	PLYMOUTH
0489-082-60		21966	NICHOLASSEN (PLYMOUTH)
0489-193-12		43108	HINKLEY
0489-193-34		20800	HALSTEAD
0489-211-24		41717	AMERICAN
0489-211-26		21431	SUNSET
0489-211-30		41752	HINKLEY
0489-211-31		21620	PLYMOUTH
0494-081-03		21262	SANTA FE
0494-081-15		21244	SANTA FE
0494-091-01		37274	SYCAMORE
0494-092-06		37241	SYCAMORE
0494-093-10		21055	WILLOW SPRINGS
0494-191-23		21189	PARK
0494-271-01		37590	MULBERRY
0494-271-05		37532	MULBERRY
0494-271-06		37516	MULBERRY
0494-271-08		37562	MULBERRY
0494-272-01		21256	ASH
0494-272-02		37531	MULBERRY
0494-272-03		37543	MULBERRY
0494-272-04		21245	PARK
0494-272-05		21261	PARK
0494-274-01		37488	MULBERRY
0494-274-02		37472	MULBERRY
0494-281-01		37440	MULBERRY
0494-281-02		37424	MULBERRY
0494-281-03		37414	MULBERRY
0494-281-04		37396	MULBERRY
0494-311-07		21079	HWY 58
0494-311-19		21112	RAINBOW
0494-311-20		21134	RAINBOW
0494-311-21		21160	RAINBOW
0494-311-22		21184	RAINBOW
0494-311-23		21212	RAINBOW
0494-311-24		21234	RAINBOW

0494-311-30	21151	RAINBOW
0494-311-35	21250	FRONTIER
0494-311-47	21163	HWY 58

Attachment 3

PG&E's Technical Analysis of the Western Plume Migration

On January 28, 2013 Pacific Gas and Electric Company (PG&E) submitted the Technical Memorandum (CH2M HILL, 2013). The Technical Memorandum provided a discussion of Site data in support of an alternative hypothesis as to why chromium in groundwater is not migrating through the freshwater injection barrier to the west where chromium has been detected at wells MW-121D, MW-153S, and MW-169S2. The alternative hypothesis suggested the chromium was present west of the injection barrier prior to initiation of freshwater injection, either as a result of natural conditions (i.e., the chromium is naturally occurring) or as a result of historic chromium plume migration that occurred prior to injection. In February 2013, the Regional provided a response to PG&E indicating it did not agree with the hypothesis proposed in the Technical Memorandum. PG&E looks forward to having a technical discussion with the Regional Board staff to discuss our alternative interpretation of the data and proposal to gather additional data to supplement our conclusions.

Despite our differing views on the interpretation of the data regarding the source of the low level chromium detections, PG&E believes there is separate empirical data to support the case that the chromium present west of the freshwater injection barrier is not migrating further to the west towards existing parcels where groundwater is used for domestic purposes. As discussed below, PG&E is proposing additional data collection to evaluate the potential hydraulic influence of agricultural well 27-03 in this localized area.

As documented in the *Conceptual Model for Groundwater Flow and the Occurrence of Chromium in the Western Area* (CH2M HILL and Stantec, January 2013) groundwater flow in the immediate vicinity of the freshwater injection is locally (i.e., within several hundred feet) to the west as result of freshwater mounding. However, on a more regional scale (i.e., even over a distance ½ mile or less) groundwater flow is to the east and northeast. PG&E's groundwater monitoring network confirms that groundwater in the Upper Aquifer is not flowing from the area where chromium has been detected (MW-121, MW-153, and MW-169) towards the west and northwest where groundwater is pumped for domestic purposes.

PG&E has also conducted investigations of Upper Aquifer conditions to the west and northwest of well MW-153 and the Upper Aquifer is not present in these areas. That is, groundwater is at such a depth, and bedrock is shallow enough, that there are no saturated unconsolidated sediments (i.e., Upper Aquifer) in these areas. These observations further support the conclusion that groundwater in the Upper Aquifer in this area is not expected to flow to the west and northwest where groundwater is pumped for domestic purposes.

PG&E has recommended the collection of additional data to more fully understand the hydrology in this western area, including data to better understand the effectiveness of the freshwater injection barrier and the potential influence of agricultural well 27-03. PG&E looks

forward to discussing these various work scopes with the Regional Board and is committed to moving quickly to collect this additional data.

Attachment 4

Proposed New Language in Order No. R6V-2011-0005A1:

Ordering Provision 1.b. Within 14 days from the date of issuance of this Order, and within 14 days of the submittal of each quarterly report delineating a revised affected area provide a report to the Water Board listing all properties that have been provided interim uninterrupted water service. The report must include addresses and well numbers. The report must list the bottled water service being used and the water volume being provided. The report must include documentation to show that interim water supply meets state primary and secondary drinking water standards and commercially available bottled drinking water will satisfy this requirement ~~hexavalent chromium levels of less than 0.02 11g/L¹ or the final MCL, once that standard is adopted by CDPH. The Discharger may propose a higher standard if it can demonstrate that the hexavalent chromium levels in the affected well prior to being impacted by the discharge was higher than 0.02 11g/L.~~ If interim water supply is denied by a property owner or occupant, provide proof or evidence of such refusal.

Proposed New Language in Order No. R6V-2011-0005A2:

Ordering Provision 2. Paragraph 2 Suspension:

Based on the memorandum provided by PG&E on June 6, 2012, the Feasibility Study meets the requirements of Order No. R6V-2011-0005A1 and is accepted pending completion of The Feasibility Study community involvement process as outlined in Ordering paragraph 1. PG&E may submit a Feasibility Study Addendum to evaluate the voluntary Program as described in Findings 4 – 6 and PG&E’s June 6, 2012 revised Feasibility Study and propose modifications to the Program by June 1, 2013. Except for Paragraphs 2(c)(8)³, 2(f) and 2(g), the requirements in paragraph 2 of Order No. R6V-2011-0005A1 are suspended as long as PG&E implements a voluntary Program as described in Findings 4 - 6 and PG&E’s June 6, 2012 revised Feasibility Study and letter or PG&E’s Feasibility Study Addendum upon approval of the Addendum by the Executive Officer, including:

a) replacement water service to eligible property owners that have wells that contain levels of hexavalent chromium greater than 3.1 µg/L or total chromium greater than 3.2 µg/L and are willing to receive replacement water. This will be done within 120 days of acceptance of the Feasibility Study by the Water Board,⁴ and

b) full implementation of the Program, as defined in Finding 5, by August 31,⁵ 2013. Within 14 days of acceptance of the Feasibility Study by the Water Board, PG&E must submit to the Water Board a detailed schedule for full implementation of the Program (as defined in Finding 5) by August 31, 2013. This schedule may be extended by the Executive Officer if PG&E demonstrates that additional time is necessary. PG&E is directed to submit a Feasibility Study Addendum to evaluate the voluntary Program and propose modifications to the Program by June 1, 2013. The August 31, 2013 full implementation deadline is suspended for six-months to permit review and approval of

the Feasibility Study Addendum and to permit eligible property owners who have elected replacement water under the current Program to have the option to elect any approved modified Program alternatives. Within 14 days of the Executive Officer's approval of the Feasibility Study Addendum, PG&E must submit to the Water Board a detailed schedule for full implementation of the modified Program.

c) for any eligible property owners identified after the Fourth Quarter 2012 Groundwater Monitoring Report, PG&E will notify the Regional Board of the additional eligible property owner(s) and will contact the eligible property owner(s) within 5 days of verified sampling results and offer to supply interim bottled water and will provide the eligible property owner(s) with information regarding the Program. Once the eligible property owner has elected to participate in the Program, PG&E will install the replacement water system within six months.