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MEETING
STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

HOLIDAY INN AND SUITES
SIDEWINDER ROOM
2700 LENWOOD ROAD
BARSTOW, CALIFORNIA 92311

WEDNESDAY, SEPTEMBER 16, 2015
1:00 P.M.

REPORTED BY:
ANN BONNETTE, CSR NO. 6108

APPEARANCES

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- Kimberly Cox, Chair
- Keith Dyas, Vice Chair
- Don Jardine
- Peter C. Pumphrey
- Amy Horne, Ph.D.
- Patty Z. Kouyoumdjian, Executive Officer
- Kimberly Niemeyer, Legal Counsel
- Sue Genera, Executive Assistant

- Gita Kapahi
- Anne Holden
- Penny Harper
- Ian Webster
- Lisa Dernbach
- Daron Banks
- Lauri Kemper

1 BARSTOW, CALIFORNIA - WEDNESDAY, SEPTEMBER 16, 2015

2 1:00 P.M.

3
4 CHAIR COX: Good afternoon, members of the public and
5 Lahontan staff. Welcome to the regular meeting of the
6 California Regional Water Quality Control Board, Lahontan
7 Region. My name is Kimberly Cox, from Helendale, and I am
8 the Board chair. I want to thank the public for attending
9 today. Your comments, ideas, and participation are vital
10 to our decision-making process, and we do a better job
11 when you give us your input.

12 At this time I would like to introduce the other
13 members of the Board. To my right, we have Keith Dyas
14 from Rosamond; Dr. Amy Horne from Truckee; Don Jardine
15 from Markleeville; and Peter Pumphrey from Bishop. Our
16 Board member Eric Sandel from Truckee was unable to be
17 with us today.

18 Our Executive Officer is Patty Kouyoumdjian.

19 Ms. Kouyoumdjian, would you please introduce
20 your staff.

21 MS. KOUYOUMDJIAN: I would be happy to.

22 To my left is Kim Niemeyer, Staff Counsel, and
23 Sue Genera next to her. And in the audience we have
24 Anna Kathryn Benedict from the State Board, and
25 Gita Kapahi, also from our State Board; Lauri Kemper, our

1 Assistant Executive Officer; Doug Smith, Manager, from
2 Tahoe, and we have Mike Plaziak, Manager, from the
3 Victorville area; Rich Booth from Tahoe, Anne Holden from
4 our Tahoe office, Lisa Dernbach from our Tahoe office.

5 CHAIR COX: The Regional Board has three items on
6 its meeting agenda today and many more items for tomorrow.
7 For this afternoon, the first item is the Public Workshop
8 on the Draft Order for PG&E's chromium contamination in
9 Hinkley.

10 Later this evening, we will resume with the
11 second item -- a status report on the related activities
12 in Hinkley -- and the third item is a public forum.

13 The goal of the public workshop is to provide
14 clarification and understanding of significant changes
15 that have been made to the most recent draft of the
16 cleanup and abatement order. This draft was released by
17 the Water Board's advisory team on September 1st. The
18 release of the draft order began the 30-day comment period
19 which ends on September 30th. We encourage your written
20 comments to be submitted in writing by that date.

21 The format of the workshop today will involve
22 several panels, during which proposed significant changes
23 to the order will be explained. Those explanations will
24 be followed by a facilitated question-and-answer period.
25 The public's input is important to us so we can draft the

1 final order that requires cleanup as quickly as possible
2 while ensuring any potential impacts from the remediation
3 are reduced to maximum extent practicable and that the
4 community is protected.

5 No decisions will be made today on the draft
6 CAO. After the comment period closes on September 30th,
7 the Board's advisory team will review the comments,
8 propose any additional changes, and respond to the
9 comments received. The Water Board has tentatively
10 scheduled November 4th and 5th to hold public meetings to
11 consider adoption of the final order.

12 If you have any questions about the process
13 today, please don't hesitate to ask. You can speak to any
14 of our staff members that will help you understand the
15 process. It can be a little daunting, and we want to make
16 sure that all of you understand how this will work.

17 During the workshop, we will have the Board
18 members join you in the audience so that we can all
19 participate in hearing what is to be shared with us today.

20 At this time I would like to ask Board member
21 Peter Pumphrey to share some opening comments.

22 MR. PUMPHREY: Thank you. I really don't have much
23 to say except to say thank you again for taking the time
24 to be with us today and to be part of this process. As I
25 think we explained in May, and we will probably explain

1 again today, this is not the normal way that these orders
2 necessarily come into existence.

3 Oftentimes people go and they craft an order and
4 they come and say here it is, here is what we're proposing
5 to do. But we really wanted to try to have as much
6 participation from all of the people involved in what is
7 going to be the ultimate decision, all of the people
8 involved in the situation to try and craft something that
9 we can feel comfortable would meet everyone's needs as
10 much as possible. And I, for one, am very, very grateful
11 for all of you who have come and helped, I think, us see
12 that that was a good decision.

13 One of the things that you will see today is
14 that there was a lot of progress made as a result of the
15 conversations that took place in May and that those --
16 that progress really demonstrates, one, that we are
17 getting a better order potentially; and, two, that there's
18 a lot of value in the idea of bringing people together and
19 having them work together to try to find solutions to
20 issues.

21 There are still things that are going to have to
22 be worked out, there are still decisions that are going to
23 have to be made, but because of your effort and because of
24 your enthusiasm and your willingness to take time from
25 your lives to help us, I think that we are going to come

1 up with a better product than we might have if we pursued
2 another path.

3 So, again, thank you for your time today, thank
4 you for all of the time that you put in in trying to give
5 us input and information that hopefully will lead us to
6 make informed and workable decisions.

7 Thank you so much.

8 MS. KOUYOUMDJIAN: I would like to just make a
9 logistical announcement, and that is for the ladies, they
10 are doing a renovation in this hotel. For the ladies, the
11 restroom facilities are available outside by the ice
12 machine area.

13 The gentleman -- I'm sorry, the facilities are
14 still under construction, and if you can go to the front
15 desk and get a key, they'll allow you other alternatives.

16 So with that, I was going to introduce
17 Gita Kapahi, who is going to help facilitate the session
18 for us this afternoon and this evening, and she is going
19 to lay some of the ground rules on how to go forth on the
20 workshop with that, and those of us here will be moving to
21 the audience.

22 MS. KAPAHI: In the opening comment, the Chair
23 mentioned that there's an advisory team and a prosecution
24 team, and I'm just going to turn it over to our legal
25 counsel to explain what that is and have the folks that

1 are on the various teams raise their hands so that you can
2 see who is -- who is in what position.

3 So Kim?

4 MS. NIEMEYER: Hi. So we have something that comes
5 out of due process, ideas, which is fairness; so you want
6 a hearing to be fair. And it also comes out of case law
7 from the California Supreme Court that when we're hearing
8 an item such as this where someone has rights that maybe
9 it's divided into two groups, the Water Board does, and
10 one group is an advocate for their position; so the
11 prosecution team puts out a draft -- puts out an abatement
12 order, and they're advocating for the positions in that
13 order.

14 The advisory team which -- I'm sorry. First,
15 let's identify the prosecution team.

16 The prosecution team is Anne Holden and
17 Lisa Dernbach and Lauri Kemper, and Anna Kathryn Benedict
18 is Counsel for that group, and so they are advocating for
19 those positions.

20 In order for the Board to make a decision that
21 is fair, they need to be able to hear all sides of that
22 information -- all sides of that issue. And so the
23 advisory team, which is made up of Patti Kouyoumdjian and
24 Doug Smith and Rich Booth and myself, we provide the Board
25 with that advice; so we take the information that we hear

1 from the prosecution team, from PG&E, from the community,
2 from all the different various groups, and we synthesize
3 that for the Board, and we provide them advice; so we try
4 to make it so that it is neutral and fair.

5 And so when you hear prosecution team and
6 advisory team, that's what's going on. And just so that
7 you know and understand, too, we don't talk to each other
8 in the office about this matter. We try and make it very
9 transparent; so those conversations that we have, we also
10 share with you. So I hope that sort of makes that clear.

11 Does anyone have any questions about how that
12 works? All right.

13 MS. KAPAHI: So I don't -- this is an awkward room,
14 and I don't know where to stand. So if I stand over here
15 and you all look this way, can you hear me?

16 DR. HORNE: We're in the dark over here.

17 MS. KAPAHI: So I'll stand here.

18 Some of you were here back in -- at the end of
19 May. We kind of shook things up a little bit. We had a
20 meeting where I broke everyone up into groups, and we had
21 conversations. And as a result of that, there were more
22 conversations that happened, and then there were some
23 consensus items that occurred.

24 And so here, today, we're going to be
25 going over the two positions, the -- and we were going to

1 clarify the ideas for consensus. We're not here to debate
2 these opinions. We're here to listen and to ask questions
3 that clarify and to understand why what is being presented
4 is being presented.

5 So, again, the comment period ends
6 September 30th. If you do make a comment, the court
7 reporter is here to document what the conversation is, but
8 we do -- we do hope that you will provide those comments
9 in writing so that they can be captured appropriately.

10 So, again, the close of comments will be
11 September 30th. We're here today, we'll do this twice.
12 So this afternoon, we are going to do a shorter version
13 and abridged version this evening for those that couldn't
14 come this afternoon. But we're going to go through this.
15 And, again, my ground rules, you know, you may not agree
16 with what you hear, but all opinions are valued.

17 Please silence any noise-making devices. I will
18 try and keep us on time. The idea is to go through the
19 two panels, and then we'll break at 3:00 o'clock. We'll
20 have a continuation of our conversation, and then we'll
21 take a dinner break. Then we will do an abridged version
22 this evening and then follow it up with comments.

23 And I think -- was there -- a status report is
24 coming later on this evening. So with that, I am going to
25 ask the prosecution team to come up and go over their

1 consensus text that was submitted to the Water Board.

2 Okay. I think up here is probably --

3 MS. HOLDEN: I'm loud. My name is Anne Holden, and
4 I'm a member of the Water Board's prosecution team. I'm a
5 geologist in the Water Board's South Lake Tahoe office. I
6 am going to take about ten minutes or so to go over the
7 consensus changes that were made to the January 15th draft
8 CAO, and by consensus changes, I mean the changes that
9 were jointly developed by the Water Board's prosecution
10 team and PG&E following the May 28th workshop that Gita
11 explained about earlier.

12 So there's a handout here. It's fronted with
13 the pink page that is back there, and what this handout
14 is, it has an explanation of every change that is in the
15 cleanup and abatement order, every consensus change, but
16 I'm only going to cover the ones that are highlighted in
17 yellow. And then those changes, the language, I'm going
18 to be discussing is also going to be highlighted in yellow
19 on this screen and -- go ahead.

20 Kim?

21 MS. NIEMEYER: I was just going to offer that the --

22 MS. HOLDEN: I'm sorry. When you speak from the
23 audience, you need to identify yourself every time you
24 speak so that the court reporter can get an accurate
25 recording of who said what.

1 MS. NIEMEYER: I'm sorry. This is Kim Niemeyer, and
2 I just wanted to clarify that the consensus language in
3 the draft order is that which is italicized so that you
4 can tell what is -- what that is. So it's black
5 italicized font.

6 MS. HOLDEN: Black italicized font, and the deletions
7 are in black strike-out and the additions are underlined;
8 so I'm going to start with change No. 6. Okay.

9 So this is a consensus change that was made to
10 finding 16 which discussed how -- which discussed the
11 background study and how background values were developed
12 and the change that we made to this finding just described
13 and clarified the Peer Review criticisms on the 2007
14 background study. That is the study that we developed,
15 the currently adopted background values of 3.1 and 3.2.

16 We added some language to clarify the
17 limitations of the 2007 background study, the Peer Review
18 criticisms, and then also to acknowledge the ongoing USGS
19 background study that is happening now that may result in
20 new background values in the future for the Water Board to
21 consider. So those are the changes to that finding.

22 Now, on the second page of the handout, change
23 10, and -- okay. So this we deleted, and if you can see
24 the yellow highlight, we deleted the reference to the term
25 "affected area," and we did this throughout the cleanup

1 and abatement order. We also deleted a little further
2 down finding 43, where the affected area was defined, and
3 we did this because the affected area terminology was a
4 carryover from the 2011 replacement water cleanup and
5 abatement order, and it was no longer needed for this
6 cleanup and abatement order because now there are
7 sampling, domestic well sampling requirements that are set
8 in existing remediation permits, having that mild buffer
9 around the southern chromium plume where PG&E has to
10 sample domestic wells, and then there is now specific
11 requirements for the northern area for domestic well
12 sampling. So the affected area terminology was basically
13 just outdated and no longer needed; so we struck it
14 throughout the cleanup and abatement order.

15 Moving on to change No. 16.

16 MS. GENERA: I'm sorry, you said 16?

17 MS. HOLDEN: Eighteen. So change No. 18 -- oh, I'm
18 sorry, change No. 16, we've deleted this finding, this
19 order that was in the original January 2015 cleanup and
20 abatement order, and we basically replaced it with another
21 one, if you can go to page 20.

22 MS. GENERA: Sure.

23 MS. HOLDEN: And the key thing we did here is that we
24 defined -- we carried over the term that talked about how
25 PG&E needed to continuously operate the remediation

1 systems, and we defined what "continuously" meant in a
2 footnote, and then we added another order that requires
3 PG&E to submit annual operating plans.

4 And the whole intention of these orders is that
5 we wanted to set a level of effort and expectation for the
6 amount of remediation that PG&E will do, and that will be
7 set in annual operating plans, and then this just
8 clarifies and is more specific about how we judge if there
9 has been reductions in those levels of effort and then how
10 PG&E needs to notify us. So we were more clear in these
11 two findings by putting in these requirements.

12 Scroll down a little further on this page. I
13 think there's another. Okay.

14 So now I'm going to discuss change 21, which is
15 on page 3 of your handout, and this is the order that
16 deals with cleanup requirements for the Western finger
17 area. And so what we did here was we inserted some
18 revised requirements. The key change to note here is that
19 we removed the requirement that they clean up the
20 background levels in the Western area by July of 2016.

21 We removed that requirement because we didn't
22 have a technical basis available to support that specific
23 clean update. But we went ahead and retained the
24 requirement from PG&E to continue operating their existing
25 remedial actions in the Western area, and we inserted in

1 No. 2 -- in No. 2, we inserted some new triggers so that
2 if we start seeing increases in specific monitoring wells
3 in the Western area, that will then trigger PG&E to do --
4 to submit a report proposing additional remedial actions
5 in that area, and then if you scroll to the next page.

6 And then this table of monitoring wells was
7 added to set specific monitoring wells that we'll look at
8 for those trigger levels that would require them to
9 propose additional remediation actions.

10 And this finding here regarding the Western
11 finger was included just to recognize that there is a USGS
12 background study going on and that there's a preliminary
13 results report that's due from the USGS in 2017 that may
14 have some additional information on the source of chromium
15 in the Western area.

16 Following the submittal of that report by the
17 USGS, PG&E has to submit a feasibility study to achieve
18 background levels in the Western area. So those are new
19 requirements.

20 And then further down, keep scrolling, we
21 deleted the previous requirements. Again, there is the
22 due date that we had in there that we removed.

23 Scroll down.

24 Okay. We're now looking at the section of the
25 orders that had cleanup, that has cleanup deadlines for

1 the Southern plume upper aquifer, and we revised these
2 dates. So this is the requirement for PG&E to reach and
3 maintain the 50 part per billion target. We revised that
4 date from December 20, 21 and pushed out four years to
5 2025.

6 Similarly, for the target for PG&E to reach and
7 maintain the 10 part per billion plume, we changed it from
8 2026 December and pushed that out to 2032, and we did that
9 considering a range of factors, including modeling
10 uncertainty, the range of times that PG&E had estimated
11 for cleanup in their removal time frame assessment, but
12 also really still wanting to show strong remediation
13 progress. So these numbers represent still the lower end
14 of the range that PG&E had estimated, but not the very
15 lowest number that was originally in the cleanup and
16 abatement order.

17 Okay. This is the section of the cleanup and
18 abatement order that deals with the Northern plume cleanup
19 requirements, and we revised these requirements to reflect
20 more current information about monitoring Chrome 6
21 concentrations and monitoring wells up in the northern
22 area. The chrome levels in those northern area monitoring
23 wells have -- we have three of them in the original
24 cleanup and abatement order that were defined as hot
25 spots, having concentrations higher than ten. This was

1 based on data from 2014 when we were first drafting the
2 CAO that came out in January 2014.

3 So two of the monitoring wells are now below
4 ten, and one of them has had very significant decreases in
5 chromium; so we went ahead and revised the triggers for
6 remediation of those wells based on these decreases that
7 we're seeing, but we -- just in case we don't continue to
8 see those decreases, if you can scroll down a little bit,
9 we have put in kind of a backstop here.

10 If we start to see increases in monitoring wells
11 or an increase in trend, that will trigger a requirement
12 for PG&E to submit a remediation board plan. So we just
13 tried to update this to reflect more current data and --
14 but still leave a backstop if we see things going in the
15 direction we don't want to see.

16 Okay. Page --

17 MS. GENERA: Twenty-four.

18 MS. HOLDEN: Go ahead and scroll down. Thank you.

19 This is the section of the cleanup and abatement
20 order that requires replacement water. As I talked about
21 earlier, we revised -- we took the term "affected area"
22 out of the cleanup and abatement order, and then the
23 change we made here is that we removed the requirement for
24 PG&E to provide an analysis in each quarterly report if
25 there was a domestic well containing chromium within

1 20 percent of the MCL.

2 And we took that requirement out because we
3 already had this requirement here saying that they have to
4 analyze whether a domestic well has an increasing trend of
5 chromium, and we decided that that increasing trend
6 requirement was protective, was going to give us plenty of
7 advanced warning if a domestic well was creeping up, and
8 it was a better and more protective requirement than
9 the -- than having that 20 percent of the MCL, so that
10 really wasn't necessary, so we struck that.

11 And then we changed this language regarding
12 interim replacement water. This is the requirement for
13 PG&E to provide bottled water. We changed that to require
14 it -- they have to provide bottled water within ten days
15 of a lab report identifying affected well instead of
16 within two days of a quarterly report, it is a quicker
17 response time, and so we agreed to that.

18 And then the next change is page 25. Okay.
19 This is just throughout the section that talks about the
20 permanent replacement water supply.

21 If you can put it at the beginning of the --
22 right there. Perfect.

23 We used the term previously "permanent
24 replacement water supply," and we just replaced that
25 throughout this section with a more accurate discretion

1 long-term because PG&E doesn't have to provide water
2 permanently, but just as long as a well is affected, as
3 defined in the cleanup and abatement order. So that
4 change was made throughout.

5 And that is all I have. Okay.

6 MS. KAPAHI: So -- sorry.

7 So would -- are there more presentations from
8 the consensus group? Okay.

9 So at this time, are there any clarifying
10 questions or questions of -- and to clarify any of what
11 you heard?

12 Yes. Doug? And if you could identify yourself
13 and speak loudly, please.

14 MR. SMITH: Doug Smith, and I think I speak loud
15 enough normally, yeah. Thanks.

16 So I have a question, just some clarifying
17 questions on page 1-26, consensus text that was submitted
18 regarding USGS background study when -- under item -- I
19 will wait until Sue gets that up.

20 DR. HORNE: It is page 21.

21 MR. SMITH: Page 21, Bates label 1-26.

22 MS. GENERA: I'm sorry. 1-26?

23 MR. SMITH: 1-26. Page 21. There you go.

24 So just below that table -- so in the yellow
25 highlights it says that USGS background study preliminary

1 results report, are you referring to the report that is
2 due September 2017?

3 MS. HOLDEN: This is Anne Holden. Yes, we are.

4 MR. SMITH: And how is the progress of that USGS
5 study coming along?

6 MS. HOLDEN: It is coming along very well.

7 MR. SMITH: There were several deliverables that are
8 ahead of that time. One is on May 31st. The due date was
9 to evaluate -- the USGS to evaluate existing data.
10 Another due date is December 31st, coming up, to analyze
11 the rock and the alluvial, and the third date before that
12 preliminary result is June 30, 2017, to evaluate the local
13 geologic conditions.

14 How is the USGS coming along on those items?

15 MS. HOLDEN: As far as I know, they're on-track and
16 moving forward with all those tasks that are required by
17 the contract.

18 MR. SMITH: Excellent. Thank you.

19 MS. KAPAHI: Any other questions from anybody in
20 the audience?

21 Okay. Seeing none, I will move on to Lauri.

22 MR. SMITH: Kevin is going to do it.

23 MS. KAPAHI: Kevin is going to do it, okay.

24 Kevin, you're up.

25 MR. SULLIVAN: I'm Kevin Sullivan with PG&E.

1 And what I'm here to talk about today is sort of
2 the other half of the consensus changes. Anne spoke about
3 the harder part, which was all the text changes that were
4 proposed for the order itself. I have something called
5 the MRP. That's the monitoring and reporting plan that I
6 want to give you an overview of.

7 Now, the monitoring and reporting plan is an
8 appendix to the order, and it is the document that
9 describes what is going to be sampled, where, how
10 frequently, and how that whole program is going to work.
11 So it is a place that, honestly, the text is a little dry,
12 but it's very important for the technical people because
13 it tells us what is important to look at at the site, how
14 we're going to do it, and it creates a technical basis for
15 the decisions that we're going to make going forward.

16 So there was a draft monitoring and reporting
17 plan proposed. There were comments on that during the
18 last public meeting, and we've worked on -- primarily on
19 one major part of it is what we called the Southern
20 monitoring program. So you remember that when we talk
21 about the plume in the order, we sort of break the site
22 into two parts.

23 The Southern area has also been referred to as
24 sort of the core plume, or the areas where the
25 concentrations are very high, much over the MCL. It goes

1 up from the station up to about Thompson Road. It's, like
2 I said, in the Southern portion of the plume.

3 The other part which in this latest version is
4 called the northern or uncertain plume area, that's the
5 area where the concentrations have been much lower. That
6 sort of extends from Thompson Road onto the north. So
7 this is about the Southern area, and as part of this
8 process, we had technical folks look at all the data.
9 This was -- we gave a presentation on this, I believe it
10 was two meetings ago, about a lot of the details. And,
11 again, it gets very dry; so I am just going to try to
12 give, you know, a high-level overview.

13 So why do we monitor wells? Some of the main
14 things is we clarify the objectives, and the important
15 thing when monitoring wells are to track the remediation
16 progress. These are the wells that are going to tell us
17 if we're making progress or not, and if we're on-track to
18 get to the ultimate cleanup goals that are specified
19 elsewhere in the order.

20 So that is a very important thing, both for the
21 Board to see that PG&E is making good progress and then
22 also for the PG&E engineers so that we can see how the
23 plume is reacting and if it is going the way the computer
24 models predict. It should.

25 That will also help to track the plume. You

1 know, one of the questions that we grapple with a lot is
2 concern in the beginning that the plume might grow or
3 expand. This is the monitoring network that is designed
4 to make sure that if that were to happen that we would see
5 it in an appropriate amount of time and that we would be
6 able to then come up with the appropriate corrective
7 action.

8 And then importantly, we know that there are a
9 lot of domestic wells in the area, and this integrated
10 program is designed to make sure that we understand what
11 is happening at the domestic wells. So, importantly, in
12 this program -- and I want to make -- I've got my numbers
13 written down, I want to make sure I quote them to you
14 properly.

15 There's a set of domestic wells that are going
16 to be sampled that are not going to be talked about much
17 in this, but there will be 140 domestic wells that are
18 still going to be sampled above and beyond this program
19 that I'm going to talk about. So there's 140 different
20 individual wells that will be sampled and not be able to
21 be gathered and reported to the Board just as it is.

22 So with these objectives, we then looked at the
23 program and said let's try to update it to meet those
24 objectives. And so the key idea in this program, you will
25 hear when we talk about remediation, we talk about

1 adaptive management, and the idea is that we want to be
2 able to get data, look at the data, and see what it tells
3 us, and then modify our program as we go along.

4 And so the -- kind of in my mind, one of the
5 most important ideas about this program is that we sat
6 down, and if you look in the MRP section -- that's
7 attachment 8 -- you will see a variety of flow charts, and
8 there's different flow charts for different situations.
9 But in very broad-brush, if we see concentrations either
10 going up or going above a threshold, we're going to sample
11 that well more frequently, because that's a concern, and
12 we want to look at it. And if we see the concentrations
13 either going down or staying flat for a long, long time,
14 we're going to be able to sample that well less because we
15 say we understand what is happening there.

16 And so places that are increasing or that are,
17 you know, acting strange or acting unusual, there is a
18 series of triggers in there so that we will have to sample
19 that more frequently; whereas, if it's either at a very
20 low level or at a very steady unchanging level, we say we
21 don't have to sample that so frequently.

22 So, annually, we're going to look at all the
23 data, and we're going to look at what the appropriate
24 frequency is. Now, there's a big table in the back there
25 where we have gone through all the data that we have

1 gathered to date, and we looked at each well and came to a
2 recommendation that we provided, Water Board technical
3 staff and PG&E consultant technical staff, that was in the
4 consensus language that we submitted to the advisory team
5 saying this is where we think we ought to start; we think
6 this group of wells should be sampled every quarter; this
7 group ought to be sampled semi-annual; this group ought to
8 sampled annually. And then from here out, we basically --
9 we wrote a road map, we wrote a rule book so that if the
10 data changes, we'll have a guidepost, and we'll be able to
11 make changes to those as we go.

12 So it will take a while for those changes to
13 take effect. If you don't change your program just based
14 on one-quarter of data or two-quarters of data, we look
15 for trends. So a lot of times you will see that we want
16 to see four numbers in a row that either go up or go down,
17 or exhibit a different trend before things change.

18 Some of it require statistical tests over 12
19 quarters. It is a fairly elaborate system that is
20 designed, you know, kind of as Anne said, to have a couple
21 of different backstops. The number goes up dramatically,
22 that could kick it in. If it is gradually rising, that
23 could be a cause for increased monitoring as well.

24 Another important idea is that no monitoring
25 wells are going to be abandoned as part of this order.

1 However, if we do -- we did write the ability in that if
2 in the future PG&E wants to abandon wells that we can --
3 in a separate process, we'll propose those wells, make a
4 list, and show why we think it's okay for them to be
5 abandoned.

6 I'm mentioning this specifically because I think
7 there was a lot of concern and maybe confusion at some of
8 our earlier meetings that somehow this order was going to
9 abandon wells or destroy data or that sort of thing, and
10 that's just not true.

11 There are tensions in keeping wells versus
12 letting go of wells. There are -- for protection of
13 aquifers, there are rules on the books that say if you're
14 not using a well, you need to grab it up, you need to fill
15 it up so that contamination can't go down through the well
16 or move within the well.

17 And so at some point in the future, if we see
18 some of these wells are no longer used for monitoring or
19 not being used for usable data, both by PG&E or by the
20 Water Board or by the USGS, you know, we're taking their
21 input as well, because they have some sampling information
22 that they want to have. But if everybody says no, we
23 don't think that well is useful anymore, then there would
24 be a separate process allowed under this order to abandon
25 the wells. But as a result of this order, there's no

1 direction in this order to abandon any wells.

2 And so there, again, we also looked at criteria.
3 We decided that it is important if a well was above or
4 below 3.1, the established background level, that might be
5 important for us to decide either to increase the sampling
6 frequency or decrease. Certainly, if a well went above
7 the drinking water standard, that would be a concern, and
8 that we'd want to look at that well more closely.

9 And then for things that are in the middle, you
10 know, wells that are between three and ten, for example,
11 that might be going up, you know, at four and five and
12 six, there's a statistical test that is widely used in the
13 remediation industry called a Mann-Kendall trend test, and
14 it will tell you -- I know it has been -- it is
15 challenging sometimes for someone who says, well, my well
16 is 4.1, and then it was 4.2 and then it was 4.3 and then
17 it was 4.2 again. Does that mean anything? This
18 statistical test will tell you whether that is significant
19 or not.

20 So we're using that test as a tool to help us
21 interpret the data and make decisions as to whether we
22 should sample more frequently.

23 So this is just one example out of -- there's
24 probably about a dozen like this, but I just wanted to
25 pick one so that you could sort of see how a typical well,

1 you know, might behave in this.

2 So right now let's say that we have a well and
3 it is currently being sampled semi-annually, and it is a
4 pretty low concentration well. It's below -- it is in the
5 neighborhood of 3.1 or 10. This is not one of the core
6 wells in remediation.

7 First, we ask the question, has the well been
8 greater than 3.1 parts per billion for the last four
9 events? If it is not, that tells us that, oh, okay, it's
10 not seeming to cause a big concern; it is less than 3.1.
11 So we're not going to change that. We're going to keep
12 that on semi-annual sampling. That's sort of a no-alarm
13 sort of condition.

14 If it is above 3.1, though, then we're going to
15 ask ourselves another question, we're going to say, is it
16 increasing? Because if it is above 3.1 and it's
17 increasing, that could be the beginning of, oh, something
18 could be wrong here, we want to watch it more frequently.
19 So if it is increasing, then we are going to increase that
20 sampling to quarterly. So rather than looking at that
21 well twice a year, now we're going to look at it four
22 times a year.

23 If not, then we're going to say we'll keep
24 watching it, we're just going to keep looking at it
25 semi-annually. So, importantly, no wells ever fall all

1 the way out of the system. Okay? The wells that are in
2 this list, we pretty much -- all we're doing is changing
3 the frequency that they look at them. Some could go up,
4 from semi-annual to quarterly, annual to semi-annual;
5 others could go down. They could go from quarterly to
6 semi-annually, but they will never entirely fall out of
7 the system under this order.

8 So I think we felt that this was a good balance
9 between the frequency, the work, the labor, the time, the
10 effort that it takes to take all this to report it, to map
11 it, versus not overlooking anything that might change as
12 we proceed.

13 So that's the overview of the MRP. As I said,
14 there is a lot of kind of detailed flow charts and a lot
15 of tables. We have our technical teams here. If folks
16 have kind of specific questions if we want to get into the
17 details, but I thought that it was important to look at
18 this from kind of an overview level to understand why
19 there's all those words and why the sampling program --
20 well, it may not be the same three years from now that it
21 is today.

22 Everybody thinks that that is a good thing
23 because it is based on data, you know. We've always, I
24 think, something that, you know, there was good consensus
25 around this, let the science, let the facts kind of

1 dictate our actions here.

2 MS. KAPAHI: Thank you, Kevin.

3 Any members of the public or anybody in the
4 audience that have specific questions, clarifying
5 questions for Kevin?

6 MS. NIEMEYER: This is Kim Niemeyer.

7 I do want to make sure that everyone understands
8 what the consensus language is and what it isn't. So this
9 language was put together by PG&E and the prosecution
10 team, and it is really helpful for the Board and its
11 advisors to understand where there is not controversy
12 between those two parties, but that doesn't mean that the
13 public likes it or wants it to be part of the order. So
14 just because its consensus language, it doesn't mean that
15 it automatically will become part of the order.

16 So this is still fair game for anyone to comment
17 on, to offer your suggestions. Just so you understand
18 that when we say consensus, we don't mean done deal. We
19 don't mean that it's automatically in the order. It does
20 show where there's not controversy between those two
21 parties, and that's important because I think they both
22 come from very different viewpoints and have identified
23 ways that they could modify the order so it makes sense to
24 both of them, it satisfies both of them.

25 But, again, feel free to comment on that and to

1 offer other suggestions.

2 MS. KAPAHI: Good point of clarification.

3 Anybody else have any questions, clarification?

4 Yes?

5 MR. GRIFFIN: Jim Griffin from Griffin Dairy
6 Consulting.

7 A quick question, Kevin, on -- we've heard that
8 you have the triggers on the west side and on the northern
9 side. Are there any triggers of the monitoring wells on
10 the west side -- I'm sorry -- on the east side for
11 movement?

12 MR. SULLIVAN: Yeah. I think of this -- Kevin
13 Sullivan. I think of this as sort of broken into the
14 north and the south. Okay? And so that is really the way
15 I -- now, there's a lot of discussion about the Western
16 finger as sort of a separate, but I think that there's
17 good requirements for all the wells sort of, you know, if
18 you will, in a circle or around the plume. So those
19 triggers have been looked at for kind of wells in the
20 entirety around the plume.

21 MR. GRIFFIN: They can be --

22 MR. SULLIVAN: Increased or decreased or what have
23 you.

24 MS. KAPAHI: Did you want to say something, Lauri?

25 MS. KEMPER: My name is Lauri Kemper, and I'm part of

1 the Board's prosecution team.

2 Jim, you were just asking about triggers for
3 monitoring, the frequency of monitoring, or were you also
4 referring to some of the triggers related to action to
5 remediation? You were talking about these specific
6 triggers that Kevin was presenting on monitoring
7 frequencies.

8 MR. MORGAN: I'm Jim Morgan, area consultant.

9 Using the same logic for the west side and the
10 northern side, has the eastern side got the same
11 monitoring or the same trigger type --

12 MS. KEMPER: Yes. On the eastern side of the
13 Southern plume, I mean, the same triggers for monitoring
14 frequency apply, as Kevin mentioned, and we don't have
15 specific triggers in the cleanup order related to
16 remediation because along the eastern side is part of the
17 southern plume where we are asking for those numbers to
18 get down below 50 parts per billion and 10 parts per
19 billion within a certain time frame. Those are the
20 remediation goals that are --

21 MR. MORGAN: Clarification on this part right here.
22 You're talking about 50 parts per billion. How does that
23 relate back to an MCL?

24 MS. KEMPER: Well, 50 parts per billion is really
25 just an interim target; so it's putting -- it's giving

1 them an interim deadline to shoot for.

2 MR. MORGAN: Is that one or is it a nine on an MCL?

3 MS. KEMPER: Well, the 50 parts per billion is -- the
4 MCL for drinking water is 10 parts per billion, and the 50
5 right now is not a standard. It was the -- historically,
6 was the California's total -- I guess it still exists as a
7 total chromium standard. But in our order, we use 50
8 parts per billion for the hexavalent chromium
9 concentration, and it is just an interim cleanup target.

10 So we're just -- we put a date in the order so
11 we can all measure progress, you know, to able to say,
12 hey, we've got all the water below 50. That is a
13 milestone. Doesn't mean much other than to get all the
14 water --

15 MR. GRIFFIN: From a layperson, how does the 50 parts
16 per billion number relate back to --

17 MS. KEMPER: Relate to the MCL? It's five times
18 greater than the MCL, because the MCL is ten.

19 MR. SULLIVAN: And I would add that 50 was -- we've
20 always talked conceptually of let's get the worst part of
21 the plume done first, and that 50 was a number that was
22 selected to try to reflect that the center, the core of
23 the plume, that there was -- you know, in that area, there
24 is no question about whether or not it is PG&E's
25 responsibility, it is, and we know that that is where most

1 of the chrome is and that we really want to attack that.

2 So that was the -- that was sort of the
3 background as to why that was targeted and why that was
4 put into the draft language.

5 MS. KAPAHI: Yes, Doug.

6 MR. SMITH: Doug Smith with the Water Board advisory
7 team.

8 The Monitoring and Reporting Program had some
9 significant changes in it in that several things were
10 replaced by some new attachments to the MRP, Attachments
11 B and C, which are decision trees, which were based, from
12 what I understand, largely off the IRP manager's
13 suggestions a few months back; is that correct?

14 MR. SULLIVAN: Yes. I believe the IRP manager had
15 been pretty clear for quite some time about wanting the
16 idea of evolving programs based on data.

17 MR. SMITH: So there was one on Attachment B, which
18 is for the Southern plume, and then Attachment C is for
19 the northern area. Could you explain the differences
20 between those two and maybe work through a couple examples
21 for some of the community members here, so they can
22 understand how that would work.

23 MR. SULLIVAN: Sure. Sure. I can try this, and I
24 will emphasize that there are brighter minds in the room
25 who put this together than mine, so I may be looking for

1 help at times. The Southern and the Northern programs
2 were structured similarly but slightly different based on
3 both the absolute levels and the -- sort of the nature of
4 the network that was out there.

5 If you think about the Southern plume, and these
6 are just my kind of -- the Southern plume -- we have
7 talked about it before -- it had a very strong signal.
8 When you drill a well and you find hundreds of parts per
9 billion of chrome, you know you're -- it's unambiguous,
10 you're in a plume. You can step out from that.

11 So there is a very strong picture there of where
12 the center of the plume is, and then kind of gradually
13 going out to the edge. So that network was designed with
14 that, and we have literally decades of data down in that
15 portion of the plume.

16 When you go to the north, it's a little bit of a
17 different situation. There is a wide area covered with
18 wells that are fairly new. When I say "fairly new," I'm
19 measuring in one to five years, that we were still getting
20 our mind around exactly what was going on up there. I
21 would suggest that in the latest draft, the advisory team
22 called it the uncertain plume. I think that's a fair
23 characterization.

24 And so because of the relative level of
25 certainty in the north and south, you will see differences

1 in the monitoring improvement. When you're not sure
2 exactly what is going on, you want to have more branches
3 on the tree. You want to anticipate that other things
4 that you might be surprised.

5 So in the south, you know, basically what you
6 see, the south was the example that I showed before; so I
7 am on Figure 8.1. You can see there is a quarterly branch
8 and a semi-annual branch, and the basic idea here is that
9 wells -- I believe we can pull up -- so this is part of
10 the Board's packet?

11 MS. KAPAHI: The audience members won't have it.

12 MS. KEMPER: I have all of Item 1 on here. Just give
13 me a moment. Bates stamped.

14 MS. GENERA: Yeah.

15 MR. SULLIVAN: So this is the southern one, and why
16 don't we just kind of look at this and walk through it.

17 So once a year, we're going to look at all the
18 wells in the southern part of the plume, and the wells
19 down there, the underlying recommendation is that because
20 these wells are kind of in an area that we know, has a
21 big, significant plume, we're going to monitor these
22 either semi-annually or quarterly.

23 And the idea here is that this is the logic to
24 say should we look at it four times a year or should we
25 look at it two times a year? These wells will never go

1 to, oh, let's just look at them once every two years under
2 this program.

3 So if you're in semi-annual, okay, so we went
4 through and we said, okay, these wells, we think we
5 understand, things are not changing that quickly. We're
6 going to propose to initially start them that every six
7 months we go out and measure them. So that's semi-annual,
8 that's two times a year, okay?

9 And so then -- this is the question that I
10 showed in the other slide -- at the end of the year we
11 say, okay, is the Chrome 6 above 3.1 for the last four
12 quarters? If no, we say okay, it is below 3.1 for at
13 least some of that. That doesn't seem like a big deal.
14 We're going to keep it at semi-annual. Okay?

15 On the other hand, and I'm going to say this in
16 terms of increasing concern, if it was above 3.1 for four
17 quarters, you go, oh, hey, that's a little bit of a
18 concern. Let's do the next test. Okay? So then we're
19 going to apply that statistical test, the Mann-Kendall
20 trend analysis. So often what we might have is, you know,
21 a well that had 3.5, 4.5, 3.7, 4.2.

22 Well, in the past, folks, before we got good
23 statistical tests, you would look at that and say, well, I
24 think it went up; well, I think it went down. You'd have
25 a lot of that.

1 The Mann-Kendall test sort of gives a recognized
2 statistical method to say this is an upward trend, this is
3 no trend, or this is a downward trend. And based on that,
4 if there is an increasing trend, we say, hey, that is one
5 we want to watch more frequently. And so the next year,
6 it would go to the quarterly sampling.

7 If not, if it is just sort of going up and down,
8 then we say we'll leave it at semi-annual. So every year
9 we'll look at that.

10 On the other hand, on the quarterly, we -- it
11 sort of goes the other way. If it is quarterly and it
12 goes below 3.1 and it stays below 3.1 for four quarters,
13 then you start to say that is not looking like a concern,
14 it is less than the background level, and if it's been
15 below the background level for four quarters in a row,
16 huh, maybe we can decrease that to semi-annual, okay,
17 because it is a very low concentration.

18 If it's above 3.1, then we do more statistics,
19 and if it is saying it is decreasing, then we can go to
20 semi-annual. Otherwise, it kind of stays where it is.

21 So that is the -- you know, this whole thing is
22 just designed so that the data tells us whether we ought
23 to look at a well more frequently or less frequently. So
24 that is the south.

25 And if we could scroll maybe two more pages to

1 the north. Now, the north is a little more complicated,
2 because what we have up there is a lot of wells, which I
3 would characterize as all exhibiting lower levels of
4 absolute concentration.

5 In general, they're well below ten, but there
6 are a couple that have exhibited unusual data or
7 surprising data, and we are still a little new up there.
8 So we want to find a way that says if it stays low and
9 doesn't seem to be changing, we don't need to look at it
10 more frequently, but if it starts to look unusual, then we
11 want to start to look at that more frequently. And so
12 some of the wells there are quarterly, some are
13 semi-annual, and some are annual.

14 There is also a layer here that in the south I
15 would -- I would say that we know -- we talk about wells
16 that are in a cluster at a well location, and what that
17 means is that kind of one point on the map, there might be
18 a well or two or three different wells that are at
19 different levels.

20 And I would suggest that in the south we
21 understand the plume pretty well in three dimensions.
22 We've been pumping, we see that when we pump from this
23 well, the upper layer is changed but the lower isn't, or
24 versa-visa.

25 Whereas, in the north, you know, we went up

1 there sort of exploring, and so we put wells in. Most of
2 them have three wells at one location, and we sort of went
3 exploring because we weren't sure whether we might find
4 chrome in the upper or the middle or the lower.

5 And so the idea is that now that we have watched
6 those for a while, we know which one of those layers is
7 the highest concentration. And so there is some logic
8 built into this that we're going to focus on that highest
9 concentration.

10 Again, when I say high, it is relative. There
11 might be three wells, and one might be, say, three parts
12 per billion and the other ones might be two parts per
13 billion and one part per billion.

14 We are saying in that situation we want to keep
15 the closest eye on that three. So there's some logic that
16 flows through here that kind of pays attention to that, so
17 we'll never ignore any one of the well clusters.

18 But if you just scroll down, you will see some
19 of the similar kind of logic. You know, it's that same,
20 what is the raw data saying, what is the trend saying.

21 Here's questions about are there any other wells
22 being sampled quarterly -- right? -- so we are trying
23 to -- we put some questions in there that sort of honor
24 where is this data happening in space, because we want to
25 make sure we don't leave any blind spots.

1 And so that's the -- that's the big difference
2 between the north and the south, like I said, that kind of
3 logic. If anybody wants to elaborate on that?

4 This is a -- there's a lot of discussion on
5 this.

6 Yes?

7 MS. HARPER: Penny Harper, Hinkley resident.

8 I've got a question on your groups of three
9 wells. You said you have been monitoring wells in
10 clusters of three, and you said one might have one, one
11 might have two, and the other might have three parts per
12 billion of chromium 6?

13 MR. SULLIVAN: Right.

14 MS. HARPER: I thought you drilled them to different
15 depths, like, you know, each of the three is in a
16 different depth --

17 MR. SULLIVAN: Yes.

18 MS. HARPER: -- to a level of the aquifer?

19 MR. SULLIVAN: Yes.

20 MS. HARPER: So do you find out that they have
21 different levels of chromium 6 --

22 MR. SULLIVAN: We do --

23 MS. HARPER: -- at the different depths, and going
24 in, do you know how -- before you drill, do you know
25 exactly how far down you are going to drill, or do you

1 test as you drill?

2 MR. SULLIVAN: No. One of the -- good question.

3 One of the challenges that we have is that it is
4 very difficult to test as you drill a well for chromium.
5 The chemistry is just challenging to do that. So what we
6 did is pretty much in each one of these, we tried to do
7 three, we spread them out, we tried to pick layers that
8 were most likely to, you know, transmit water and,
9 importantly, now we've watched them for anywhere from -- I
10 think they were on the order of two years to four years,
11 and I don't know if you were here at the meeting where we
12 showed -- we made those big maps that showed all the trend
13 lines, that showed for each of the layers how they were?

14 The vast majority of the wells up there have
15 been very steady and very flat. We got three parts per
16 billion one time, we got 2.9, 3.1. It was just very, very
17 flat, and that was some of what went into, okay, we
18 watched that for 12 quarters, it hasn't moved, ones nearby
19 haven't moved, that looks stable. Maybe that's a place
20 that we only sample annually.

21 On the other hand, there were a couple up there
22 that were really unusual near the fall, and those are the
23 ones that John Izbicki has been spending, the USGS is
24 spending some time. Those ones that were changing
25 rapidly, those are sampled more frequently, so that was

1 kind of how we got to this. It was based -- it starts out
2 when you first put the well in, as an investigation, you
3 know, you're looking for something that you don't know is
4 going to be there. And then as we get more confidence
5 with the data, as we see it for longer, and as it acts in
6 a way that seems expected, then we say, okay, we're going
7 to keep looking but we're not going to look quite as --

8 MS. HARPER: Thank you.

9 MS. KAPAHI: There was another question here.

10 Did you have a question? No.

11 Okay. Yes.

12 MR. SMITH: Doug Smith with the Water Board advisory
13 team.

14 I've got another question on one of the
15 attachments to the MRP, on Attachment A, which is page
16 1-88 through -- a long table. Several tables.

17 On that, there are several columns, and a couple
18 columns, one is the ATU, the Agricultural Treatment Unit,
19 another one is the IRZ.

20 Could you explain how the community will know
21 when that information from those wells which are listed
22 under the AT monitoring plan, which is not part of this
23 order, and the IRZ monitoring plan, which is not part of
24 this order, how they would know what is what, and when
25 they would get this information, where to view it, because

1 it's -- I mean, there is a lot of information in lots of
2 different places.

3 MR. SULLIVAN: So that's a good question, and one of
4 the things that I want to point out is that I think one of
5 the big improvements in this order, compared to where we
6 are today, is that today the requirements for which wells
7 are sampled are scattered through a dozen -- something
8 like a dozen different orders. Okay? So there's --
9 because it's evolved over time. You know, there were
10 orders written in response to particular permits or
11 particular questions of the day, and so right now there's
12 about a dozen different permits or plans.

13 And so the goal here was to try to put into one
14 place, so you could see the different plans, and you see,
15 we basically broke it into remediation effectiveness
16 monitoring, how are the AT -- remember, there's two parts
17 of the remedy, the ag units, the ATUs, and the IRZs, and
18 then do we have the plume under control. That's
19 remediation effectiveness.

20 And then the other part is just protect -- you
21 know, going back to the goals, monitoring the chrome to
22 make sure that we understand where the chrome is and that
23 it is not flowing into anybody's well.

24 So what we tried to do here was document the
25 thinking as to why certain wells were doing certain

1 things. So if you will notice, if you will just sort of
2 browse through that table, you will see -- do you want to
3 scroll back?

4 MS. GENERA: I am trying to find the page.

5 What Bates page?

6 MS. KEMPER: 1-88. It's actually up. It's like 90,
7 in the 90s. Right there.

8 MR. SULLIVAN: It's a very long page. So, for
9 example, if you look at -- this is, I think, the second
10 page of it, you will notice all these wells with the
11 prefix CA. That is not California, that means central
12 area.

13 These are the wells that, when you look at the
14 plume maps, you know, right in the center of the core
15 plume, there's a very, very dense network of wells, those
16 are the IRZ monitoring wells. Those tell us how well the
17 in situ treatment is working and it also tells us about
18 some of the by-products. But they're right in the center
19 of the plume, largely, if not entirely, on PG&E land, and
20 a pretty good distance away from any domestic wells.

21 So you'll see those wells are listed under the
22 IRZ monitoring plan, because it is kind of telling us the
23 main thing we want to do there is see how the IRZs are
24 working. And I will add as an aside, you'll see most of
25 these are annual or semi-annual because we don't expect to

1 see a lot of dramatic changes there.

2 If you just kind of scroll through this, and you
3 can do this kind of at your leisure, you will see we
4 mention the aquifer zone, where we know that's the upper
5 and lower aquifer. You will see some of the wells that
6 are used for agricultural monitoring. Some of these wells
7 factor into plume boundary monitoring. In general, you
8 will see those tend to be more quarterly, if we're going
9 to draw a quarterly plume map. So you will see a lot more
10 Qs on there than As and S and SAs. So that was kind of
11 the logic of what was there.

12 Now, where the actual reports are, to do that,
13 right now, I believe you would have to look at the other,
14 the geo tracker -- you could look at geo --

15 MS. KEMPER: I was going to say --

16 MS. GENERA: State your name.

17 MS. KEMPER: This is Lauri Kemper from the
18 prosecution.

19 On page 1-98, and it's the last page of the
20 monitoring, so if you will scroll down to the last page of
21 this table, there's footnotes that describe the orders
22 that require that other monitoring. So it says the waste
23 discharge requirements for the ag treatment is order 2014,
24 and the order for hydraulic capture, so that's referenced
25 there.

1 But I think what we are trying to accomplish
2 with this new cleanup order and this table is we know
3 there's monitoring that we are requiring in the cleanup
4 order that is really kind of monitoring the remediation
5 effectiveness as well as the plume boundaries. But the
6 actual monitoring in the ag treatment order and the IRZ
7 permits, those are subject to change separate from this
8 cleanup order. So we are referring to those orders in
9 here, and we have this table so people can see it's being
10 required by the recent orders.

11 What we could potentially offer would be to
12 provide the link to geo tracker or be more clear about the
13 order numbers so that folks would know when those reports
14 are due. But, basically, you have to look at those orders
15 to see when quarterly monitoring reports are due or annual
16 reports are due because those are in the two different
17 orders.

18 MR. SULLIVAN: This is Kevin. The other thing, I
19 think, from a practical matter, I think this is going to
20 be become the dominant order. This is the order that I
21 think is going to be most interest around the overall
22 plume, the overall dynamic.

23 The other orders are very important if you want
24 to understand sort of the details of how the remediation
25 systems are working. I would suggest the technical people

1 in the room who want to follow how well ag is working, how
2 well IRZs are working, what is happening with by-products
3 in the center of the plume, I think that is more in place
4 of the other orders.

5 This will be the order, though, that drives what
6 I know from other public meetings has been the thing
7 that's usually been the most interest, and that's the
8 overall plume. So this order will define that and support
9 that.

10 MS. KEMPER: I think this order requires an annual
11 cleanup status, from this report, and that is going to be
12 really the key place for the public to see how well PG&E
13 is doing.

14 And I also just want to offer to the Board and
15 the public that we -- I think at one point PG&E did ask
16 for a single monitoring reporting program and a reporting
17 fashion, and because of the details in these ag treatment
18 monitoring requirement and the IRZ, the report would be
19 very large. And we, the prosecution team, felt that it
20 was better to keep these things in separate reports
21 because having all the monitoring in one place, as much as
22 it sounds like that would be a good idea, we thought that
23 would be too cumbersome.

24 So we are trying to reduce the number of
25 reports, as Kevin mentioned. There is probably a dozen

1 orders now, PG&E submits various reports, we are reducing
2 the number of overall reports, and yet we are trying to
3 keep the report separate for ag treatment from the IRZ,
4 and then have more overview of the reporting. Focus more
5 on the actual plume boundaries and the shrinking of the
6 plume over time.

7 MS. KAPAHI: Yes. Ian?

8 MR. WEBSTER: Ian Webster, IRP management project.

9 I think I answered Doug's question already. The
10 IRP manager functions one abridged the gap between the
11 technicalities that are in the slides that we see here and
12 the people. So what we have been doing is taking the
13 complicated information that exists on the record and
14 condensing it into understandable simple terms, graphics,
15 colors, et cetera. And I'm thinking ahead, the IRP
16 functions in the order, that communication made
17 practically -- the IRP manager will translate information
18 received from PG&E reports into simple lay terms for
19 communicating and understanding.

20 MS. KAPAHI: Are we -- everybody have all their
21 questions answered, clarifications done? Okay.

22 Does anybody need to take a two-minute break?
23 We all good? Okay. I think a two-hour window is kind of
24 good.

25 So with that, anything else from the prosecution

1 team? No? Thank you, Kevin. Or PG&E?

2 Anything else from this group for presentation?

3 Okay. So are we ready to move on, then, to the next group
4 of presenters which is the advisory team?

5 MS. NIEMEYER: Are we going to take a break?

6 MS. KAPAHI: Let's take five minutes. Again, the
7 restroom --

8 MS. NIEMEYER: Maybe we should take a 10-minute break
9 because it is going to be difficult for --

10 MS. KAPAHI: Let's take 10 minutes, reconvene at
11 2:25.

12 (A recess was taken from
13 2:15 p.m. to 2:30 p.m.)

14 MS. KAPAHI: Let's resume. And now I invite you to
15 listen to the advisory team's presentation.

16 MR. SMITH: Good afternoon. Welcome back.

17 I'm Doug Smith, Supervising Engineering
18 Geologist in the Water Board South Lake Tahoe office, and
19 I'm part of the Water Board's advisory team, along with my
20 colleagues here, Rich Booth, Engineering Geologist also,
21 Kim Niemeyer, legal counsel, and, of course, our Executive
22 Officer, Patti Kouyoumdjian.

23 The last time we were at a public forum was
24 May 28th, when we conducted a facilitated workshop. Gita
25 was one of the facilitators, and we had breakout groups.

1 And the important thing about that is we heard some
2 excellent suggestions and input at that workshop. And at
3 the workshop the community spoke, PG&E representatives
4 spoke, prosecution team spoke, public spoke. It was
5 excellent. And at the conclusion of the workshop, we
6 encouraged all stakeholders who worked together in the
7 coming weeks and developing their ideas for consensus
8 text, and lo and behold, the prosecution team and PG&E got
9 together and worked together and submitted something to us
10 on July 8th, which they just went over that text.

11 And that text was significant because it showed
12 that those two parties agreed on, roughly, half of the
13 issues in the draft order which left, roughly, half for us
14 to work on. So what the advisory team did is we looked at
15 the consensus text that was submitted to us. We looked at
16 the written comments that were submitted, and those were
17 all posted on the website. We looked at all the input we
18 received at the May 28th workshop, which was excellent, as
19 I said before, and we worked on those and we came up with
20 our draft that you see here today.

21 I want to highlight some of the main themes on
22 some of the input that we received, some things that we
23 heard that were common amongst everybody. One that the
24 order needed to establish certainty, needed to establish
25 accountability, needed to have consistency, and there was

1 an overwhelming preference towards performance-based
2 requirements in most areas, but there was still a need for
3 some specific requirements. So we took that all into
4 account when we came up with our draft that you see today.

5 Regarding the consensus text that was submitted,
6 the advisory team reviewed it, and we accepted it in its
7 entirety; however, we did make a few small clarifications
8 which you may have noticed some red text in there. We are
9 not planning to go over those clarifications because we
10 want to focus on the other larger unresolved issues.

11 The main issues that we wanted to address are
12 this: No. 1, the cleanup requirements for the lower
13 aquifer; No. 2, the plume definition and plume mapping
14 requirements; No. 3, replacement water requirements; and,
15 No. 4, we added some things, some statements of facts, or
16 findings and added a summary table of the submittal and
17 performance requirements.

18 So what I wanted to do, since I didn't want to
19 speak the whole time, I am going to transition over to my
20 colleague, Rich Booth, who is going to go over the changes
21 that we made in a cleanup requirement for the lower
22 aquifer. You can find those on Bates pages 1-26 to 1-27,
23 and Sue has that up here starting right there, and it is
24 the red.

25 Rich?

1 MR. BOOTH: I'm Rich Booth. I am a hydrogeologist
2 with the Water Board in the South Lake Tahoe office. I do
3 other chores at that office, but that isn't pertinent for
4 today -- a member of the advisory team.

5 Doug asked me to take a look at the lower
6 aquifer requirements that was in the original order, and
7 we came up with some proposed changes. And as I reminded
8 you, the advisory team changes are in red, underlined what
9 we added and, of course, strike-outs what we are
10 suggesting.

11 Can you scroll down a little bit more, Sue, to
12 show some of the next page?

13 What has been deleted on some of these
14 strike-outs and little letter i, ii, and so forth, are
15 actually things that have already been done. Some of
16 these wells that were remediated from Chrome 6 that have
17 reached the lower aquifer are done, so we're striking
18 those out. And a reminder for those of you that haven't
19 been following all that closely, this lower aquifer
20 investigation and remediation has been going on for years;
21 this is not new.

22 Chrome 6 from PG&E's release has made it from
23 the upper aquifer into the lower aquifer. This is the
24 territory for the western part in the southern plume area.
25 And there is no dispute over that. So, therefore, work

1 has been done. There are extraction wells pulling the
2 contaminated water out.

3 The question is, though, at what point does PG&E
4 have to stop, at what point does it clean? In other
5 words, what is the cleanup level for the lower aquifer?

6 If you scroll down a bit more, Sue, try and get
7 your drink there, right there. The last strike-out in
8 red, you will see it is five, reach and maintain
9 non-technical chromium concentrations below aquifer
10 monitored wells by a certain date.

11 The advisory team struck out the requirement for
12 reach and maintain non-detect because we didn't believe
13 that we could support -- technically support a requirement
14 of non-detect.

15 Sue, if you scroll back into the next upper
16 page.

17 Instead we made a somewhat subtle, but
18 significant change, and you will see b, lower aquifer, the
19 first sentence, "PG&E shall clean up and abate," and then
20 underlined you see "that are linked to PG&E's historical
21 discharge or remedial action."

22 So the point is that PG&E caused that Chrome 6
23 you see in the lower aquifer, they're being required to
24 clean it up. If, in fact, there is no natural Chrome 6 in
25 the lower aquifer to be determined later, then the cleanup

1 level will be non-detect, and will be considered the
2 background.

3 So the only point we want to make here is we
4 cannot quite say right now the non-detect is, in fact, the
5 background, but we hope to, at a future date, know more
6 precisely what the naturally-occurring Chrome 6 is in the
7 lower aquifer. It may very well be non-detect.

8 This is -- we don't feel that there is
9 sufficient evidence to support that right now.

10 If later -- and by the way, the USGS study by
11 John Izbicki doesn't directly address the lower aquifer;
12 so we can't use the results from that study directly for
13 this, but we certainly can use best professional judgment
14 to make a determination of what we think it may be or how
15 to follow up on what the naturally-occurring chrome
16 concentrations may be, based on the USGS philosophy, but
17 by getting more data that we consider to be sufficient, we
18 can then make the cleanup level the Water Board would
19 require that it may be non-detect, it may be one, may be
20 two.

21 PG&E, any discharge under State Board Resolution
22 92.5 has the right to offer an alternative that they
23 believe that the requirement is not technically feasible,
24 or not economically feasible. They can say to the Water
25 Board we have an alternative cleanup level that can be

1 done, we certainly don't know if that will be done, but we
2 want to offer that to you as a possibility.

3 So that's our stance on this lower aquifer
4 level, and I will be glad to entertain questions.

5 Yes?

6 MS. KEMPER: Lauri Kemper for the record. I am with
7 the prosecution team.

8 And are you aware that the Water Board has years
9 of PG&E groundwater data, they have been monitoring wells
10 at 11C and 14C, which are just -- are located up-gradient
11 of the lower aquifer contamination of which -- those years
12 of data show concentrations. They have always been
13 non-detect.

14 MR. BOOTH: Yes. I'm aware of it, and those are
15 certainly valid pieces of information to consider. I
16 would suggest that such determinations and findings --
17 such terminations would be placed in findings and made
18 more specific to the lower aquifer and could be
19 substantiated more than the current has and as a possible
20 comment or a possible addition could be added --

21 MS. KEMPER: So when you said you didn't think there
22 was sufficient evidence, you're not -- there may not be --

23 MR. BOOTH: I'm sorry. Good point.

24 There has been sufficient evidence to put into
25 the record.

1 MS. KEMPER: Has been?

2 MR. BOOTH: Made -- made in the form. It's being
3 considered for --

4 MS. KEMPER: Okay.

5 MR. BOOTH: Good point. Thank you for that.

6 MS. KEMPER: And then have you -- how do you
7 intend -- with the changes that you proposed here where
8 you have taken out the dates and the actual, you know,
9 number, as it were, in terms of a cleanup goal, how do you
10 intend to evaluate compliance with this statement? How
11 would the Water Board do that?

12 MR. BOOTH: Because this does not have a date in it,
13 and it would be to be determined later, so there is not a
14 compliance date specifically for this because we feel the
15 cleanup level needs to be established.

16 MS. KEMPER: What I'm asking, though, is not a final
17 date. I'm asking how do you measure progress, what level
18 of effort do you expect? In other words, the other -- the
19 other thing I wanted to point out is this particular
20 sentence here about continuing implementing the
21 groundwater remediation, that PG&E has offered in a work
22 plan, that statement there requires PG&E to implement the
23 work plan. It establishes a level of effort for PG&E to
24 continue operating their current remediation system
25 extraction at certain rates, and by removing that, the

1 question I have is -- my question is: How do you actually
2 measure the level of effort.

3 So I know maybe you don't want to have a date,
4 but in terms of just how is the Water Board going to
5 establish whether or not PG&E is confined with this
6 statement that they're cleaning up and abating the
7 chromium concentrations, is that just one molecule a day,
8 a year? I mean, in other words, how is the Board going to
9 decide whether or not they're in compliance?

10 MR. BOOTH: And so the prosecution team has
11 established such milestones in this previous plan for
12 accepting that.

13 MS. KEMPER: Well, what I'm saying is that the plan
14 has -- describes a level of effort. It describes pump
15 rates and which wells are going to be pumped from, how
16 extractions are going to occur.

17 And it is consistent. This type of language is
18 consistent in our Southern plume, on the upper aquifer
19 about establishing a level of effort by basically saying
20 there will be continuous implementation of the plans PG&E
21 has in place or that are set in place in the future, that
22 are approved by the Water Board as time goes on, but this
23 particular paragraph, you know, established that.

24 MR. BOOTH: A good point. Certainly consider leaving
25 it and putting back in.

1 Did you have something to say?

2 MR. SMITH: Yes. Doug Smith. I wanted to add a
3 couple of things.

4 So item I, that first part, the advisory team
5 proposed to take that out because leaving it in doesn't
6 give any flexibility for other things to be done, for
7 changes to be made down the road, if chrome in the lower
8 aquifer were found to have gone elsewhere.

9 And right now, PG&E is extracting from at least
10 one well, from EX-37, is continuing to do that and contain
11 and clean up the chromium in the -- its chromium, as we
12 believe, from the lower aquifer. And so by taking that
13 out, that actually increases the flexibility of the Water
14 Board to require them to do other things if quarterly
15 monitoring reports and semi-annual monitoring reports show
16 otherwise.

17 MS. KEMPER: How would you -- this is Lauri Kemper.

18 How would that happen? How -- I mean, I guess
19 I'm just wondering, how would you envision implementing
20 this portion of the cleanup order with this new sentence?
21 How would you envision the staff would implement that?

22 MR. SMITH: This is Doug Smith.

23 The way I envision it is the way we treat -- we
24 work with lots of our cleanup and abatement orders in the
25 rest of our region. So what happens is we give them a

1 performance requirement, clean up your contamination, and
2 in this case, clean up -- we'll require PG&E to clean up
3 its discharge of chromium into -- from the lower aquifer,
4 and that is a performance requirement. And then we
5 require a discharger, PG&E, to submit quarterly or
6 semi-annual reports, monitor the wells, tell us how things
7 are performing, and then we work with them to review the
8 data to see if their actions are appropriate and are
9 appropriately cleaning up their contamination in the lower
10 aquifer. And by taking out a specific report that was a
11 letter that was done last year, this requirement can live
12 for many years down the road.

13 MS. KEMPER: And I just want to also ask you, are you
14 aware that the concentrations in the lower aquifer are at
15 27 parts per billion, and it's been our impression that
16 based on PG&E's work plan that's referred to in I, that if
17 they implement that plan, they can achieve that
18 concentration in a relatively short time frame?

19 I think the Water Board, staff, and the public
20 has been led to believe that that is a small geographic
21 area in the lower aquifer and that concentrations are in
22 the teens, you know, and it is something that we expect to
23 be cleaned up quickly and eliminated from the list of
24 tasks PG&E needs to do, and that -- and that's something I
25 wanted -- I'm not sure that the Board was aware of in

1 terms of establishing again, I'm just trying to get a
2 consistency and accountability and certainty that are the
3 goals that you heard from the previous workshop.

4 So I just wanted to offer that and ask you to
5 think about ways that we might be able to ensure things are
6 accomplished in a short time frame on the order of the two
7 years as opposed to decades.

8 MR. BOOTH: Rich Booth. Thank you, Lauri, that's a
9 good comment.

10 And I want to emphasize that we're not saying
11 that by trekking out the requirements for the background
12 doesn't mean we're not -- that's a good point you're
13 making. It seems to be feasible to do so.

14 Also, as Doug mentioned, if we make any
15 flexibility, you still will require a work plan. You
16 still have, as a common thing, a work plan, to have the
17 cleanup. In fact, that November 2014 is the most
18 appropriate one and we will not strike it out and leave it
19 in there.

20 MS. KAPAHI: Are there points of clarification,
21 questions from the audience? Anything more from the
22 advisory team?

23 MR. SMITH: Doug Smith again.

24 I'm going to move on to item -- the second item,
25 which is the plume definition and mapping requirements,

1 and those are found on Bates page -- they are in two
2 places. One is in the order on Bates Page 1-20 and 1-21,
3 and then that is the plume definition requirements, and
4 then the plume mapping requirements are in Attachment 8 on
5 Bates page 1-80 and 1-81.

6 So regarding the plume definition requirements,
7 because there is a significant level of certainty about
8 the southern plume, I know where it is, how it is acting,
9 what is happening down there. We wanted to establish
10 requirements that transition from the prescription of
11 installing wells every 1320 feet and connecting data
12 points every 2600 feet apart to performance-based
13 requirements that placed accountability on PG&E that were
14 consistent with the industry professional standards of
15 geology, hydrogeology, and geochemistry.

16 And so one of our primary goals in crafting this
17 language was to gain some certainty and consistency for
18 the Hinkley community. And we did this by requiring PG&E
19 to either use data from monitoring wells that are spaced
20 no further than 1320 feet apart, which is about a quarter
21 mile, or by submitting a technical justification
22 explaining why data is not needed every 1320 feet, and in
23 requiring that technical justification, gave them specific
24 requirements.

25 We wanted PG&E to specifically address factors

1 about the geology, hydrogeology, and geochemistry of that
2 area, and we listed those areas out.

3 If you go down, yes, keep going, right there.
4 Up a little bit. So that is on Page 1-21. I'm confusing
5 myself. Sorry.

6 So this is different than all other previous
7 orders because it requires either a minimum well spacing
8 per data or submitting a detailed technical justification
9 with these minimum factors being addressed.

10 And we felt that the 1320 feet well spacing as
11 an option is consistent with some of the previous orders
12 that have been issued. And this is for the southern
13 plume.

14 Regarding the northern plume, because there is
15 less certainty there, and as you saw, there was consensus
16 text submitted from the parties that they believe that the
17 background concentrations are uncertain at this time,
18 because less certainty there, what we thought was the best
19 way to go was for technical justification using best
20 professional judgment.

21 Let me switch to -- if you could switch to 80
22 and 81, I need to go on to the plume mapping requirements,
23 which are in the monitoring and reporting program.

24 MS. GENERA: Down further on the page?

25 MR. SMITH: Yes. Should be. Keep going. Yeah.

1 It's mostly on 81.

2 So the plume mapping requirements has those same
3 minimum factors that must be considered and evaluated in
4 mapping. And for the northern area we require these
5 factors, known as best professional judgment, which orders
6 in the rest of our region, it's the default standard is
7 best professional judgment using licensed professionals,
8 but in this order, what we've done is we've then specified
9 what those minimum factors are, and we did that to provide
10 some accountability and consistency. And so the community
11 knows what kind of information they expect to receive.

12 So here are the things that are going to be
13 evaluated. Here is the information that is going to come
14 in. And so when PG&E submits this information different
15 than other orders or different than previous orders, we
16 will respond to this. We have to review this. We have to
17 talk to them about this, and, of course, share that with
18 the community.

19 Do you have any questions?

20 MS. DERNBACH: My name is Lisa Dernbach. I'm a
21 California certified hydrogeologist, and I'm with the
22 South Lake Tahoe/Lahontan Water Board Office.

23 The prosecution team is concerned about the
24 changes that were made to order for A4, page 16, Bates
25 page 1-21. Is the advisory team aware of the likely

1 future chromium plume maps that will result from the
2 proposed changes in your order?

3 MR. SMITH: Yes.

4 MS. DERNBACH: So for everyone's understanding, we
5 provided some visual aids to make it clear to everyone
6 what changes will likely result from the change in
7 requirements in the order, and we have two maps put up
8 here that were sent to the Water Board in 2014, from
9 monitoring reports by PG&E.

10 The map on the left was created with the green
11 chromium plume lines following the specific requirements
12 in the recent cleanup and abatement orders, and they
13 consist of a southern plume and, in this case, there was
14 two northern -- I mean one northern plume attached, and
15 they had hot spots. This hot spot had 275 parts per
16 billion of chromium.

17 The map on the right is PG&E's interpretative
18 chromium plume map using the same criteria listed in the
19 draft CAO, using geology, hydrogeology and geochemistry,
20 and in PG&E's best professional judgment, you will notice
21 the northern chromium plume is gone. You will notice the
22 Western finger is gone. The left bunny ear that we call
23 this, the bunny head up here, the Western bunny ear is
24 gone, and the bunny nose in the east is gone.

25 And we wanted to make sure that you understood

1 these would be the type of best professional judgment maps
2 PG&E would likely be submitting, if following your
3 proposed changes in the CAO.

4 MR. BOOTH: Rich Booth, also a certified
5 hydrogeologist.

6 Didn't know we need to say that.

7 Yes. To answer your question, absolutely yes.
8 We don't know the exact interpretation that we will
9 receive from the discharger until, of course, they submit,
10 but such an interpretation is not a shock.

11 But please remember that the dischargers
12 submit -- this is the case for all discharges, the Water
13 Board regulates, dischargers and consultants submit their
14 best professional judgment for what they believe to be
15 their plume or whatever, and it is up to the Water Board
16 staff to agree or not with that. So they may submit such
17 a thing, but if the Water Board staff agrees or disagrees,
18 then we have that option, we have that obligation, in
19 fact.

20 MS. DERNBACH: So my follow-up question would be the
21 best professional judgment map by PG&E's consultant, is
22 this in the best interest of the citizens of California
23 where permeant concentrations in the hundreds are ignored
24 in ground water? Is that in the people's best interest?

25 MR. BOOTH: If that Chrome 6 is a threat to public

1 health, then it is not, and it would not be accepted as
2 such.

3 MS. KEMPER: I'm Lauri Kemper. I'm with the
4 prosecution team.

5 I understand from your answer, Rich, that the
6 staff would be able to evaluate that information. And I
7 think we are -- the prosecution team because we are the
8 likely staff that's going to be implementing this order in
9 the future. When we go back to the goals that Mr. Smith
10 brought out about certainty and consistency, we are asking
11 the Board and its advisors to think carefully about these
12 requirements related to monitoring, because what I heard
13 you say, Rich, is that every quarter PG&E can provide a
14 map that looks like the one on the right, and that is,
15 again, this map was submitted by PG&E as its best
16 professional judgment.

17 So we do believe that the past is a predictor of
18 the future, and if this is the kind of map we got every
19 quarter, and we disagreed with it, are you expecting staff
20 to bring those issues up every quarter?

21 And I guess I would ask you to think about
22 whether or not that is what you -- how you want staff to
23 spend its time, or another option, because when I read the
24 language is that if you are specifying an open-ended
25 requirement as you have in the revision now, that it is

1 allowing other factors and professional judgment and using
2 the industry standard and reliance on PG&E's
3 professionals, licensed professionals, to draw the map, I
4 guess, from my impression, I would assume that I am going
5 to go along with that unless there is something really
6 erroneous about that logic, or if I have already made the
7 point that it was, you know, I guess that puts me in an
8 awkward spot.

9 I guess I understand that if the first time we
10 get this map and we lay out all the reasons why we think
11 it's not accurate, from our -- from our professional
12 licensed geologist using industry standards, you know. We
13 can put that in the record, but it is -- does feel like we
14 are going down a different kind of path.

15 And so I just wanted to make the public and the
16 Board aware of that, because we've been using very strict
17 mapping requirements, and that's what's been
18 produced over the years, and that's what the community has
19 grown accustomed to, and if we move away from that, there
20 will be more questions for everyone in the room, I
21 believe.

22 MR. BOOTH: Rich Booth again.

23 I want to point out that for all of the
24 dischargers, when they submit their interpretation, when
25 the Water Board staff, if the Water Board staff disagrees,

1 we'll make that disagreement, frankly, a requirement, then
2 they cannot subsequently continue -- continue disobeying
3 or disagreeing. They have to either reach it or reach an
4 agreement with us, or they have, of course, the option to
5 petition.

6 So once we've had a -- once the Water Board has
7 required certain agreements or disagreements of best
8 professional judgment, the discharger is not allowed to
9 continue with such, they have to have a second party,
10 yield to the Board members, they have to disagree with the
11 Water Board staff in such a way -- if the change that we
12 anticipate here, in fact, would require more staff time,
13 in fact, answer some of the best professional judgments
14 put forth by the discharger, we don't anticipate that to
15 be continued every single quarter, there should a
16 resolution once the Water Board staff has addressed that
17 issue.

18 If this is not resolved in a quarterly report,
19 it has to be another way. That's what we anticipate.

20 As far as what the community expects, I'm going
21 to have to defer that to others that have had a much
22 better history of this project than I have.

23 MS. KAPAHI: Yes?

24 DR. HORNE: I don't know whether it's appropriate.

25 Let me just ask first: Is it appropriate for a Board

1 member to ask a question?

2 MS. KAPAHI: Yes, it is.

3 DR. HORNE: So I am Amy Horne, and I'm a Board member
4 of the Board.

5 So just to try to clarify this a little more, so
6 if a map was presented to the staff, with the interpolated
7 line, using PG&E's best professional judgment, and the
8 Staff noticed that there were wells outside of that line
9 that had -- that were exceeding the 10 MCL by orders of
10 magnitude, what would your expectation be at that point?
11 Or how would this work at that point?

12 MR. SMITH: Doug Smith with the Water Board's
13 advisory team.

14 The way we would work with that, and the way I
15 would expect Staff to handle that would be to open up a
16 dialogue with PG&E and ask them what is going on, and this
17 is what we do with all the other dischargers and have that
18 dialogue, say, what is going on, how should we address
19 this.

20 And in other instances, in other cases, I'm not
21 going to use PG&E, but, in other cases, the discharger
22 typically would propose, well, I don't think this is ours
23 because of these reasons, or we don't know so how about we
24 do this sort of investigation to look into it.

25 And that is typically the way we handle things,

1 and then they -- the discharger would typically propose
2 something, and they would submit something, and we
3 would accept that or review it and accept it, and go
4 forward with it.

5 So we like to base our decisions on what to do
6 with sufficient scientific information and so sometimes
7 that means going out and collecting a lot more data or
8 looking at existing data, and sometimes you can do both.
9 And in certain areas, you may not have to install wells.
10 Sometimes you can do some geophysical things out there,
11 some measurements to see what the aquifer is doing, but a
12 lot of times you need some wells to really understand some
13 of the subsurface conditions and the chemistry.

14 But you can do some interpolations, and that's
15 what we do as professionals, as licensed professionals.
16 We use all of our knowledge and information to draw
17 conclusions, and so that is what we would do is work
18 directly with the discharger in figuring out what is going
19 on.

20 MS. KAPAHI: Mr. Pumphrey and then Lisa?

21 MR. PUMPHREY: I'm Pete Pumphrey.

22 Just so I understand, how did the map on the
23 left come into being?

24 MS. DERNBACH: Lisa Dernbach, Lake Tahoe Water Board.

25 The map on the left was generated using criteria

1 that was specified in the 2013 cleanup and abatement order
2 which contained numerous findings that the preponderance
3 of data demonstrated the northern plume was attributed to
4 the PG&E Hinkley compressor station.

5 MR. PUMPHREY: I don't think that is the question I
6 asked. So let me try and ask the question again.

7 Who generated that map? Who prepared that map,
8 and where did the information come from that was used to
9 draw those lines?

10 MS. DERNBACH: So the map came from PG&E's
11 consultants, CH2M Hill with Licensed Professionals, and it
12 was a hub on the map data from over 500 monitoring wells,
13 and they used the data from those wells to draw the
14 chromium plume lines based on the criteria for plume
15 drawings in the 2013 CAO.

16 MR. PUMPHREY: Thank you.

17 MS. NIEMEYER: This is Kim Niemeyer.

18 I would just add that some of that criteria
19 changed over time. So it started off in the CAO was
20 modified in 13267 order, as we asked for lines to be
21 connected that -- so I don't think the way that we
22 requested the plume to be drawn in the CAO was as clear as
23 we tried to make it be later, where we asked them to
24 connect lines that are 2600 feet apart, you know.

25 So I think those things changed a little bit

1 over time outside of the CAO.

2 MS. DERNBACH: Not -- no, no. The 2600 requirement
3 was actually in the CAO.

4 MS. NIEMEYER: Okay.

5 MS. DERNBACH: So the only thing changed was --
6 you're right, there was a change. PG&E submitted
7 information, as they're always allowed to do, saying that
8 they did not believe that the monitoring wells on the west
9 side of the Lockhart fault showing chromium concentrations
10 was attributed to the compressor station release.

11 We evaluated that information and all the other
12 PG&E submitted, and we concurred with that interpretation.
13 So we told PG&E from now on they no longer needed to map
14 chromium plume lines on the west side of the Lockhart
15 fault, but for the main plume coming from the compressor
16 station and north, which was already established in the
17 2013 findings for the CAO that the chromium in the north
18 was part of the release from the compressor station.

19 So if it is going to change in the new CAO, then
20 those findings from the 2013 CAO have got to be refuted
21 somehow. That already says the northern plume is
22 attributed to the compressor station.

23 MS. NIEMEYER: Right. And I think that we included
24 some findings to clarify that a little bit.

25 MS. DERNBACH: Because the 2013 CAO findings were not

1 uncertain. They were very certain, that when you have
2 275 and 17 and 42 parts per billion in the north and the
3 down gradient slope path of the compressor station, there
4 was no uncertainty that it was all part of the original
5 1950, 1960 releases.

6 MS. KAPAHI: Hang on a second. Did you want to go
7 first, Rich, and then --

8 MR. BOOTH: Rich Booth, yes.

9 The findings for background chromium level based
10 on the 2007-2008 background study is, in fact, what we are
11 saying is uncertain because we have a background study in
12 place now to determine more accurately, if you will, to
13 have more data for a background study. That's why we
14 consider the 2007-2008 background numbers to be interim,
15 or I think there was another word used earlier today.

16 Granted, they are codified in the finding in the
17 order. We don't dispute that. They are in order. We
18 propose that to be referred to as interim background
19 levels and not used as a definitive and not used as --

20 And back to the question that you had, Amy,
21 about when you do have large numbers, you have orders of
22 magnitude that was higher, Chrome 6 in the Northern areas,
23 that, again, if the discharger makes the point they're not
24 going to be released and they provide whatever evidence
25 they do and Water Board Staff disagrees, they -- Water

1 Board Staff is obligated to give the reasons they
2 disagree, and, therefore, have -- have the obligation to
3 regulate that and require it to be cleaned up and
4 remediated from the discharger's release.

5 It would probably be a simple matter if you see
6 evidence contrary, the Water Board Staff would make the
7 point and that it is from PG&E's release which, frankly,
8 doesn't have to be a PG&E release to make that point.
9 There is a level at which it can be scientifically
10 defensible and then the discharger is obligated to do it
11 for the Staff as required. We don't intend there to be a
12 much higher level of proof. We just intended a response
13 to the discharger as to why we believe that it should be
14 done.

15 MS. KAPAHI: So did you want to go next or --

16 MR. SMITH: Doug Smith.

17 I wanted to clarify something for the community
18 because I found it very confusing between these -- all
19 these numerous old orders that are still out there and
20 living, and then this new one, and then all the findings
21 that Ms. Dernbach was referring to.

22 This new order is intended to be the single
23 cleanup and abatement order, and it actually replaces all
24 of those old ones, all those old ones, all those ones that
25 Ms. Dernbach was listing, those are going away. So all

1 the findings that are supporting these orders have to be
2 in this order.

3 And so what the advisory team, as we worked on
4 some of those, and we will be explaining some things that
5 we have added to this order, and so the findings from this
6 section have to stand on their own. It can't refer to an
7 old order that was since replaced and went away.

8 MS. HARPER: Thank you.

9 CHAIR COX: Kimberly Cox, Board chair.

10 Couple of questions. Am I understanding that
11 the motivation for the advisory team proposing this
12 language is for consistency with other orders and more the
13 way we present these orders.

14 And then the second question is will the work
15 that Dr. Izbicki is doing help provide greater definition
16 for that northern plume that is delineated on the map on
17 the left and perhaps give some new boundaries to that in
18 the future?

19 Thank you.

20 MR. SMITH: Doug Smith. Thank you, Ms. Cox. Doug
21 Smith.

22 Yes, the language here is that the advisory team
23 has proposed is consistent with all the other orders in
24 the rest of our region. And we did retain in part one
25 piece that was not consistent with the rest of it, but it

1 was consistent with some of the previous orders, and that
2 is the option for the 1320 foot well spacing.

3 So that gives some certainty as to minimum data
4 points that are out there, and if there isn't a minimum
5 array of well points meeting that spacing requirement,
6 then we are certain to get information, detailed technical
7 information, from PG&E.

8 So Dr. Izbicki's study is intended to establish
9 what the background chromium concentrations are in the
10 upper aquifer, and so we are hopeful that we will get some
11 results by mid-2017, that preliminary report, that the
12 parties had talked about hopefully, then get some
13 information by then; if not, the end date, the final
14 report, I want to remind everybody, because it takes a
15 long time to do this right, the final report is due the
16 beginning of, like, February 2019.

17 You know, it seems like a long way, but look
18 where we've been, and look where we are going. So -- but
19 about midway in 2018, Dr. Izbicki is supposed to report on
20 the estimated background number of Chrome 6, not give the
21 final report. So he's supposed to be providing the Water
22 Board with these bits and pieces of information as per his
23 contract as it goes along and not just hold off and wait
24 for the grand curtain rise at the end.

25 And then this order does incorporate

1 requirements to adjust these things as his information
2 comes in.

3 DR. HORNE: Amy Horne, Board member.

4 Let me see if I can articulate this question.
5 So how do we get at certainty about where PG&E's plume is?

6 So part one piece of it is the results from
7 Dr. Izbicki's study where he's looking at different
8 isotopes and trying to figure out, and we'll be able to
9 say with some scientific evidence this is likely the
10 chromium that is resulting from the PG&E activity or,
11 alternatively, other chromium may not be likely to be
12 resulting from PG&E; so that is one piece of it.

13 But then drawing lines on a map, so using
14 hydrogeology, geology, statistics and data points and
15 interpolating a line is one way to do it, and my
16 assumption is that that approach would encompass that
17 everything that was likely PG&E's responsibility would be
18 within that line, however that was done. Or drawing
19 point -- from point to point, from wellhead to wellhead,
20 monitoring well to monitoring well.

21 So we are looking at -- so we're looking at the
22 surface, what is happening is underneath us. We can't see
23 what is going on. Do we have any certainty about where --
24 where that plume line, where the plume actually is
25 relative to those monitoring wells, and it seems to me

1 that if you connect two points between monitoring wells
2 that are showing elevated numbers, the plume might
3 actually be outside that. So drawing a line from well to
4 well isn't necessarily going to tell you where the plume
5 is. So you have these statistical methods and you have
6 this point-to-point method. So which gives us more
7 certainty?

8 MS. KAPAHI: If you'd like to respond.

9 MR. BOOTH: Rich Booth, advisory team. Point well
10 made.

11 If I understand you correctly -- and I think Amy
12 is giving you an example where a monitoring well will show
13 a result, and let's say -- by the way, we can keep -- we
14 are proposing this order to make these changes, this is a
15 proposal. The Board can accept it or reject it.

16 The monitoring well, let's say it has 3.5
17 Chrome 6 and all the points west of that well are higher
18 than that. It seems the main part of the plume is, I
19 would say, is west of that.

20 Well, does that mean it's likely that at some
21 point east of that well the 3.1 line exists? Do we drill
22 a well to find that exact 3.1 plume line, or do we use
23 reasonable extrapolation to determine where that 3.1 line
24 might be?

25 And industry standard is the latter. We use

1 reasonable extrapolation to determine where that 3.1 line
2 might be, based on the hydrogeology situation is. That is
3 typically what is done.

4 And the requirement to have a specific
5 monitoring well spacing to determine that is typically not
6 done. It's my understanding that such a prescriptive
7 monitoring well spacing at plume point was very important
8 in the past for this site. It had consequences other than
9 just accurate plume map.

10 If those situations don't exist now, then they
11 may be obsolete or they may be not necessary to draw the
12 plume. Still going to have whatever continuity of
13 expectations from the community of the actual drawing of
14 the plume through recommending it be done or with the
15 extrapolation method. It's our recommendation.

16 MR. SMITH: I would like to add something.
17 Doug Smith.

18 So to answer your question directly,
19 Dr. Horne, I believe there is more certainty using the
20 interpretation method, and I will tell you why, rather
21 than connecting dots. Because the subsurface is something
22 that cannot be seen, we have to rely on geologists, civil
23 engineers, hydrogeologists, to poke holes. The subsurface
24 is very diverse, and in the Hinkley area, there has been
25 thousands and thousands of years of sediments laying in

1 from the river over many, many years building up. We
2 cannot ever see that from the surface.

3 So what geologists have to do is we have to
4 poke holes. We have to look at the lithology, we have to
5 look at the geochemistry, we have to look at the
6 hydrogeology, and we have to make our best professional
7 judgment as to where things are.

8 Where is this gravely sand that the
9 contamination may be following? Where is this more
10 permeable layer that it may be going in? We have to take
11 all this into account and really use our best professional
12 judgment, our expertise, our knowledge. We go to school
13 for years to understand this, things that we can't see,
14 and we have to interpret, and then we can draw lines on
15 maps, dash them where we are not sure, question them where
16 we absolutely don't know, solid where we have great
17 information, and be done with it, rather than saying
18 you've got to connect it from this well to that one
19 because that provides a different type of certainty.

20 MS. KAPAHI: Mr. Pumphrey?

21 MR. PUMPHREY: Peter Pumphrey.

22 Yes, I still have a question about this.

23 Do I understand correctly that the basic
24 difference between the two maps is not that the data or
25 the monitoring information that allows you to draw the

1 green lines don't exist in both places? The difference is
2 just in the idea that the judgment on the map on the right
3 is that the top area encompassed by the green lines are
4 not the responsibility of PG&E, and I see all these people
5 nodding; so I guess I do understand that correctly.

6 And my second question is why would there not
7 simply be value in generating maps or a map that showed
8 all of the data points, and then allowed for someone to
9 say on the map, note, we do not believe, based on our
10 professional judgment, that this area is the
11 responsibility or is linked -- to use the phrase that we
12 heard before -- is linked to the discharge.

13 I see a huge tempest here, but I'm not sure the
14 size of the container of the tempest, and it doesn't seem
15 to me that there is a distinction between a difference
16 here. If you have the information that allowed you to
17 draw the two lines, then that is not the same as saying
18 that it disappeared on one of the maps. It is the same as
19 saying there is a concern about whose responsibility it
20 is, and that's a separate question.

21 So why -- why could you not get at a reasonable
22 solution to this by dividing the questions and answering
23 both?

24 MS. KEMPER: Lauri Kemper. I'm with the prosecution
25 team.

1 And I'm just going to jump in because that is an
2 excellent idea, Mr. Pumphrey, and, in fact, that is what
3 we do right now.

4 So under the current order that PG&E is under,
5 that was a compromise we reached by sitting down with PG&E
6 and talking with them in a negotiation -- what happened
7 was there was a period of about a year where PG&E was
8 submitting these two maps to us every quarter. These were
9 submitted as part of a quarterly monitoring report
10 submittal, and they were also being provided to the two
11 newspapers that are present today, and it appeared that
12 there was a lot of confusion from the public. And we sat
13 down with PG&E, and we said there has got to be a
14 different way.

15 And so what we agreed to, and this is what the
16 PG&E is currently under orders to provide is the map on
17 the left-hand side with insets where they can highlight
18 areas where they disagree, where they dispute our
19 professional judgment. They're using their professional
20 judgment to say why they feel, believe, or have
21 information to say that the Western finger doesn't belong
22 to them, or the North, so they use insets.

23 And we thought it was important that those
24 insets -- we didn't provide that map today -- but the
25 insets are places up in here on the maps so that it is

1 when someone goes to our web page, they can see PG&E's
2 description and their judgment on what their professional
3 judgment says about some of the origins of the chromium in
4 these areas that are under dispute right now.

5 And I would argue that that is something we want
6 to continue until such time as the Board has enough
7 information to change background numbers or plume mapping.
8 It seems premature to make this kind of change right now,
9 because we are going to end up -- and I also want the
10 public and the Board to know that the public, the wider
11 public, not the folks here, not the people in Hinkley, but
12 the people that call me from British -- from the UK, from
13 New York City, from Washington, DC, they look at these
14 plume maps, they are on our website every quarter, and
15 they are posted.

16 And if all of a sudden one quarter they all
17 switch over or it looks like the plume has shrunk
18 dramatically, that's a different story that I don't want
19 to have to continue to explain to people.

20 So that is where I want to -- I appreciate you
21 taking the time to hear the consequences because we don't
22 really want to go down those paths.

23 MS. KAPAHI: Kevin?

24 MR. SULLIVAN: Kevin Sullivan with PG&E.

25 This is a challenging question, and I want to

1 make sure that you're at least thinking about some of the
2 consequences of these maps.

3 To Lauri's point, there are people who look at
4 these maps, and I believe that one of the things as a
5 professional that we have an obligation to do is to try to
6 convey a richness of information so people can make
7 intelligent decisions. And my concern here is that when
8 we simply rely on a number that is 3.1, which is a number
9 that is being reviewed by the USGS, it presents a very
10 black and white depiction of whether or not someone is in
11 a perceived plume or out of a perceived plume.

12 There are places in that plume where the
13 majority of the data is below 3.1, but anyone detecting
14 above 3.1 says you are in. So one of the weaknesses with
15 this depiction is that it doesn't convey the fact that you
16 could be a homeowner within that who could have a well
17 that's perfectly below 3.1. It smashes all that data
18 together, sort of paints, if you will, a worse case.

19 And I would also suggest that to try to, if we
20 are not careful to the casual observer from the UK or
21 whatnot, you would get the impression on that map on the
22 left that if we just focus on the line, which is what
23 people are wanting to do, the data gets stripped out, that
24 somehow a perceived risk in the center of the lower
25 southern plume where the concentrations are in the

1 hundreds or thousands, that you're in the same boat if you
2 are way up in the north where you might have three wells,
3 one that is at 3.2, one at 1.0 and one is at a 1.5. That
4 would put you in the same plume.

5 So you could literally be in a place where, as
6 we have heard from folks who moved away from Hinkley out
7 of fear, they moved to Victorville and said, oh, now I
8 have 4. I was better off there. That is the danger of
9 oversimplifying this, and relying solely on this 3.1 line
10 as some sort of black or white, up or down vote.

11 So that's one of the reasons that as we think
12 about how we are trying to depict this data, I wanted to
13 make sure that we are considering the other side of bigger
14 is not always better. We want to be technically accurate.
15 We want to tell the best technical story that we can so
16 people can make judgments based on that.

17 MS. KAPAHI: Mr. Pumphrey?

18 MR. PUMPHREY: Pete Pumphrey, Board member.

19 I just want to make one last comment or
20 suggestion, and that is, it seems to me that you can sort
21 of see that were the Board to adopt the language proposed
22 at the beginning of the discussion of this item that
23 you're -- it's not going to take very long until you get
24 to the point where you have differing professional
25 judgments, and so since we can contemplate that that's

1 actually going to happen, it's not speculative. It has
2 already happened in the room. Some thought might need to
3 be given on how that's going to be resolved in a timely
4 manner and how it can go forward without having to be
5 resolved every time one of these maps is due for
6 submission.

7 MS. KAPAHI: Mr. Banks?

8 MR. BANKS: Daron Banks.

9 Piggybacking off of what Kevin said, that would
10 be under the presumption that there's areas throughout
11 Hinkley, according to their data, over the 50 years, it
12 would have already been -- that is under the presumption
13 that Hinkley's Chromium 6 doesn't exist under 3.1. We're
14 here to determine where the Chromium 6 is; okay? It could
15 be in an area at one parts per billion, and it's their
16 responsibility to clean it up because they allowed it to
17 flow north.

18 So, you know, with him saying this arbitrary
19 number of 3.1, he is correct, because as we see with the
20 list, Hinkley is at the low end for California of having
21 Chromium 6. We could be at zero or as high as ten. So a
22 map showing all the data, because the data continues to
23 flow and move, him talking about wells right next to each
24 other, the depth is why the numbers are different because
25 the Chromium 6 is at different levels.

1 I mean -- and in the four years or whatever it
2 has been since I have been sitting in meetings, with the
3 exception of Kevin standing up and saying, hey, it's our
4 Chromium 6, we spilled it, I never heard him or any of his
5 experts admit to anything. So, of course, that's PG&E's
6 stance. They're not responsible -- they are not
7 responsible for the -- that is the way it has been for,
8 you know, for years, decades.

9 So the Board has a responsibility. We currently
10 have a study. We've all agreed to leave things as-is
11 until we have concrete actionable items directed by
12 Dr. Izbicki. We all agreed to that, including Kevin. So
13 these big changes are contrary to what the Staff agreed
14 to, what the community has agreed to, and have to be held
15 accountable for because I -- I have Dr. Sanchez here to
16 talk to you, but he's not allowed to create data. He has
17 to tell me what PG&E says. So the community is -- we have
18 to depend on you guys doing the right and correct and
19 moral thing.

20 I mean, going back to what this is suggesting or
21 Kevin is suggesting is going back to the way it was 25
22 years ago where it really was -- I'm sorry -- Lahontan did
23 a poor job. We don't want to do that. We worked hard to
24 this point. We have agreements, we have people's words,
25 which are very important.

1 So, you know, like I said, you know, I
2 appreciate Kevin's stance, but it's his job to make sure
3 to either make it as small as he can because it is about
4 dollars and cents; it's not about right and wrong and what
5 their responsibilities are. It's about keeping PG&E's PR,
6 and we're about people.

7 The community is already completely -- it has
8 completely changed, and we'll never be back to the way it
9 was five years ago. It won't. We won't get our stores
10 back, we won't get our schools back, you know, and at
11 least not the way it was before because the children
12 aren't present like they were.

13 So I just want everybody to consider that. I
14 mean, that 3.1 number, it is right. I have been arguing
15 that it's arbitrary, and a number from the sky, and we
16 proved that through the looking into it, but I presume
17 that their number doesn't exist below that. That's
18 presumptuous. They're still responsible, and Kevin has
19 stated in front of the Board members that they can clean
20 it up to zeroes, stated it publicly, and that's what our
21 goal is, clean up all of their responsible Chromium 6 and
22 by-products. Thank you.

23 MS. KAPAHI: Any other comments or questions?
24 Clarifications?

25 It's 3:30 right now. We took a break earlier,

1 so we're going to keep on going. Anyone need a break?

2 Okay. So we have two more issues.

3 So a quick five-minute understanding that --

4 MS. NIEMEYER: Ten minutes.

5 MS. KAPAHI: Ten minutes, and then we will go to the
6 next issue.

7 It is 3:35. We will break and begin at quarter
8 to 4:00.

9 (A recess was taken from 3:35 p.m.

10 to 3:42 p.m.)

11 MS. KAPAHI: We have another couple of areas that the
12 advisory team wants to go over.

13 So Doug, please continue.

14 MR. SMITH: Doug Smith here.

15 So we've been talking about and hearing lots of
16 discussion upon the plume definition and mapping
17 requirements and the changes that we are proposing, and I
18 wanted to point out a map that is on page -- map 47 that's
19 up there right now that Sue has. This was provided by the
20 prosecution team in their original draft.

21 And, Sue, if you could scroll down just a hair
22 to show the bottom one. There. That's fine.

23 So it shows the mapping as of the third quarter
24 of 2014, of the chromium plume. Of course, solid line, I
25 want to highlight this, solid line in the south because of

1 the level of certainty. We really know what is going on
2 there. We have a lot of data points there. And so,
3 therefore, hence, the solid line, as opposed to the dashed
4 line for the chromium in the north. There is less
5 certainty as everybody has -- well, not everybody. As the
6 prosecution team and PG&E has stated, that there is less
7 certainty up there.

8 And so the advisory team added the word
9 uncertain plumes up there and added that throughout, as
10 you probably saw, to distinguish the southern area from
11 the northern area and what's going on there. And so we've
12 had some great input on this, and it doesn't seem like
13 there is one solid answer yet we haven't heard to address
14 everybody's concerns.

15 That's our job. We are to try to come up with
16 something, so we are going to try to take all the input
17 that we heard, various viewpoints, and try to craft
18 something, maybe something that looks more akin to what is
19 up here. I don't know. I'm not sure that the input has
20 been great and very helpful.

21 So, hopefully, there are some other ideas, of
22 course, that you guys can submit by the comment deadline
23 of September 30th. So we are all ears. We are all ears.

24 MS. DERNBACH: Lisa Dernbach, Lahontan Water Board.
25 Board change for adding the word uncertain. Was uncertain

1 meant to apply to existence or signs --

2 MR. SMITH: Or origin.

3 MS. DERNBACH: No, not origin. What part -- what is
4 the uncertain in reference to?

5 MR. SMITH: Doug Smith.

6 The word "uncertain" was to be an adjective to
7 modify the word plume; so it refers to everything dealing
8 with chrome in the north. Everywhere we put it. That's
9 what --

10 MS. KEMPER: A follow-up question. Lauri Kemper.

11 We have, you know, as the maps that PG&E
12 submits, they submit data. So there is certainty in the
13 data. There is chromium being measured in the north, and
14 I think that is part of maybe what is confusing is that
15 there is -- there are monitoring wells, and there are
16 domestic wells that do contain chromium, and it is kind of
17 mentioned. Some are those are high, some are low, and not
18 always everything inside the line is above 3.1, but there
19 is data that shows there's chromium concentrations above
20 3.1.

21 So, anyway, that is something that we just
22 wanted to understand. The uncertainty had more to do with
23 the origin, whether it came from the concentration or
24 whether it had to do with a sense of uncertainty around
25 whether or not there was chromium and certain

1 concentrations in that area.

2 We consider the dashed lines, we agreed with
3 PG&E that they could use dashed lines in mapping because
4 they don't have space, and they don't have access. So
5 there is not as many data points in this area. So they
6 are having to extrapolate the line based on a limited
7 number of well points, but we have both domestic well and
8 monitoring well data, so that's certain.

9 MS. KAPAHI: Yes.

10 CHAIR COX: Kimberly Cox, Regional Board.

11 The map that you're showing up there, who
12 developed that map? Was it the prosecution team or the
13 advisory team, or where did that map come from?

14 MR. BOOTH: Rich Booth.

15 The base map that you see was generated by the
16 prosecution team. The only modification the advisory team
17 has made to that map -- and I believe I'm correct -- is
18 simply adding the word uncertain, and we used the same
19 font and coloration and underlining for that map as we did
20 for all of our changes in the order --

21 CHAIR COX: Thank you. The prosecution team made an
22 assertion that if the language that you're -- the advisory
23 team is proposing is included in the CAO, that we would
24 see presentations from PG&E similar to the map on the
25 right in the back. Does the advisory team agree with that

1 assertion?

2 MR. BOOTH: Rich Booth.

3 The PG&E, as any discharger can and has
4 submitted their interpretation of where plumes exist, the
5 origin and so forth. So the short answer is yes, that's
6 not the final word. The Water Board has the final word.

7 CHAIR COX: Do you see any -- I think, as a Board
8 member, I'm very concerned about the health of the
9 community from a public health standpoint.

10 Do you see any risk to public health in changing
11 the language you're proposed -- adding your proposed
12 language in the CAO?

13 MR. BOOTH: Rich Booth.

14 Absolutely not.

15 CHAIR COX: One last question. The map in the back
16 on the left has a plume, a northern plume boundary that is
17 very different than the map there. So maybe fill in the
18 migration of the plume from there to there because it
19 appears to have morphed in size and morphed in direction
20 and changed in size.

21 MR. BOOTH: I would like to refer that to someone
22 from the prosecution team.

23 MS. DERNBACH: Lisa Dernbach.

24 Yes. So this map was first quarter 2014, and
25 when PG&E submitted it, as Lauri mentioned before, there

1 was limited monitoring wells, and they connected all the
2 monitoring wells, and even though there is an absence of
3 monitoring wells, like right here in the middle, PG&E in a
4 subsequent map then separated those two plumes because
5 they couldn't get access to install monitoring wells. So
6 rather than say we have no data to show they're connected,
7 they just disconnected the two plumes, even though there
8 is no data verifying that they're not connected.

9 MS. KEMPER: Lauri Kemper.

10 And Kimberly inferred -- and for anybody who
11 wants to look at the actual data, it is shown here. There
12 is a monitoring well in this area that's at 2 -- well, the
13 total chrome is 3.9, and there is also monitoring wells
14 here that are 3.6. So in this particular quarter, the
15 concentrations were above 3 in this middle area, and I
16 don't have the data because we had another year's worth of
17 data being collected so these monitoring wells may now be
18 less than 3, which is partly why they would have separated
19 the plume. They would say, okay, above it, below it, the
20 numbers were higher. So that shape does change over time.

21 MS. DERNBACH: Lisa Dernbach again.

22 So, Sue, can you scroll to show the upper part
23 of this plume? There you go.

24 So, actually, this Holstead Road is actually
25 very similar to up there on the map, so they are

1 consistent --

2 MS. KEMPER: This is Holstead.

3 MS. DERNBACH: -- because they are using the same
4 monitoring well data.

5 MS. KEMPER: So it's really just kind of cut off
6 right here, just because -- and that may have more to do
7 with that data.

8 MS. DERNBACH: And this map reflects third quarter
9 2014, and the map on the left was first quarter 2014, so
10 there was a slight change of data in this area, but on one
11 side, no monitoring wells, and on this side, there were
12 monitoring wells.

13 MS. KAPAHI: For the purposes of the court reporter,
14 attachment to map of PG&E chromium groundwater plumes
15 Hinkley. I will take them in the order that I saw them.

16 MR. BANKS: Daron Banks, Hinkley resident.

17 This is to the advisory board. So the word
18 uncertain, it is a pretty powerful word, and I would ask
19 prior to 2011, when PG&E believes now that at Thompson
20 Road, they had a capture, so it's no longer -- which is a
21 good thing, and a big deal.

22 So from the late 1950s to 2011, according to
23 PG&E's information and their data -- correct me if I am
24 wrong -- it's 1 to 3 feet per day, doing elementary
25 math, according to the advisory board, water flow, where

1 would it be at this point? It would be far north because
2 there was no capture prior to 2011.

3 MR. BOOTH: Rich Booth.

4 Thank you for the question. It was an excellent
5 one. The prosecution team asserts that the groundwater
6 flow could have made it all the way to Harbor Lake in the
7 time since the release. PG&E disputes that claim. The
8 advisory team believes, given the information available
9 and made the case, rather than the case -- water, that
10 groundwater could, in fact, have reached from the
11 compressor station to Harbor Valley in the time allotted
12 with sufficient certainty, if you will, to at least
13 presume the water flow has made it that far and is the
14 basis for aquifers. There is not enough evidence. We
15 don't believe the evidence that PG&E has submitted to
16 dispute that claim is sufficient.

17 So we, therefore, as a regulator, as a protector
18 of the water quality, has taken the stance that based on
19 our calculations and our understanding of the flow that
20 the groundwater could have made it all the way north. We
21 dispute that.

22 MR. BANKS: So then why the word uncertain? If you
23 dispute that, disagree with that, why would you put that
24 word because that is misleading, inappropriateness?

25 MR. BOOTH: Groundwater flow may have made it all the

1 way to Harbor Lake. What we're less certain about is how
2 much of that Chrome 6 in that northern area is a result of
3 PG&E's release, or is naturally occurring or a combination
4 thereof?

5 MR. BANKS: Correct. And I will agree with you, and
6 without seeing the data, did --

7 MS. GENERA: Can you stand up --

8 MR. BANKS: I mean, historical events, the river
9 flowing, that is going to push the water through quicker.
10 All these variables throughout the last 60 years, I mean,
11 and with using their own data and their own calculation,
12 it is the Harbor Lake. So it's really discouraging, as a
13 community member, to really understand why this discussion
14 is even being had because it's two pieces.

15 MS. NIEMEYER: This is Kim Niemeyer.

16 And I understand that, and I think our intention
17 wasn't to take away any of that, but I think with the USGS
18 study coming, that it just seemed like it wasn't worth the
19 fight on that, but we'll have that information, and we'll
20 be able to change the order and what is required once we
21 have the information.

22 But there's a lot of information that PG&E has
23 given to us where they dispute that, and so we know we
24 have this information coming, and it's a way to
25 acknowledge that.

1 At this point, there's not a lot of data. We do
2 have, like you said, and as Rich explained, information
3 that could lead us to believe that that is, in fact,
4 PG&E's chromium, but let's wait for the USGS study, as I
5 think what that uncertainty is meant to accommodate.

6 MR. BANKS: So my response to that is that the Water
7 Board Staff has agreed, and we all came to an agreement,
8 PG&E, to not change things until that USGS study tells us
9 differently. I mean, we've agreed to that, and so an
10 entity that hasn't set these rules for the last four
11 years, but the way that these maps look now has changed
12 dramatically over the last four years, and that didn't
13 come easily. That came with hundreds of hours of some of
14 us not being with our families and sitting in meetings and
15 learning and discussing with PG&E and the Water Board this
16 information.

17 Now, we didn't come at these conclusions easily
18 because, as you can imagine, they fought it the entire way
19 so this was done with discussion using science data and
20 information, not political, but science. And to change it
21 now, that's absolutely not appropriate. If it doesn't
22 matter, then okay, leave it alone, if that's your
23 perspective.

24 We, the community, you say at this point it is
25 kind of, like, we don't really want to fight. We would

1 like you to fight for us. We would like you to do the
2 right thing. And that's what we are asking.

3 MS. KAPAHI: I just want to remind everyone that
4 today is a discussion where folks are going to explain the
5 information that they're presenting, but it's not a
6 debate, and then everyone will take this information, and
7 then questions will be responded to after the
8 September 30th date; correct?

9 MS. NIEMEYER: Yes.

10 MS. KAPAHI: And so there will be written responses
11 to much of this; is that correct?

12 MS. NIEMEYER: That is correct. This is Kim
13 Niemeyer.

14 And so all this discussion is great, and we do
15 have a court reporter, so we will be able to go back and
16 see what was said, but it is critical that you put your
17 comments in writing because that is how we will be
18 responding to the comments, is when we get your written
19 comments, we will respond to them in writing.

20 So we are not going to be able to go back
21 through this transcript and find every comment that was
22 made and respond to every comment like that. We're going
23 to respond to written comments, and that is how we will
24 take all this information.

25 Again, nothing is in stone. This is a draft.

1 We'll take those comments, and what we heard today and we
2 will rearrange it and we will take input from the Board,
3 and then we'll have in November something that the Board
4 will be looking at to vote on.

5 MS. KAPAHI: Sir, you had a question?

6 MR. KILLIAM: Roger Killiam.

7 When this came up that the CAO was going to
8 change, and my understanding of it -- correct me if I am
9 wrong -- was to consolidate orders. And it seems like
10 some of them in here are brand-new orders.

11 And my question basically is: Why are we
12 changing the way we did things until a background study is
13 done and we have some chiseled-in-stone comments from the
14 doctor we can all look at, and then I know this is not the
15 final order that is going to go out. I think we all agree
16 it is going to change. But why are we changing things now
17 when we are in the middle of a study that's going to give
18 us answers to a lot of this stuff?

19 In particular, how we draw the plume map. It
20 has always been drawn on a dot-to-dot, well-to-well type
21 of thing, and now we are going to start all over doing it
22 a different way. Why are we doing this in the middle of a
23 study that is going on that is going to tell us what we
24 need to do and give us a chance to do this because change
25 all this stuff the way it is, I sit here and look at

1 these, and I'm fairly new to this. I've only been out
2 here a year, but I look at these plume maps. All of a
3 sudden, they're all different from what I originally saw
4 here a year ago. And they're changing constantly.

5 And why are they changing? We haven't finished
6 the study yet. I don't think until that study is done --
7 you have got a lot of data, there's no question about
8 that. But until that study is done and really, really
9 everybody understands that data, where this stuff is, how
10 the geology is and everything else, why are we changing
11 the way we are drawing all these maps?

12 You know, I can understand where PG&E comes
13 from. I'm not trying to beat anybody up. They want the
14 plume map to show as small as possible. Anybody would,
15 you know. And I understand what the Water Board is doing.
16 They're trying to make sure that what is drawn out there
17 and what is there is as close to what we can do as a plume
18 map as possible. But we don't have all the information
19 yet, so why are we changing the way this shows?

20 Thank you.

21 MR. SULLIVAN: Kevin Sullivan with PG&E.

22 I just want to -- there have been a lot of
23 things attributed to me and to PG&E, and I just want to
24 make sure that folks are clear on my understanding of what
25 I think is the most important thing, is that regardless of

1 where or how those lines are drawn, I believe there's a
2 solid basis in this order as drafted for the -- kind of
3 the meat of the action of sampling up there. You know,
4 kind of if we draw a line here or there or a dotted line
5 or a solid line, there's other parts of the order that
6 still require, which is to me the most important thing.
7 Let's sample the actual domestic wells, let's understand
8 what is there. Let's understand what people have in the
9 wells, and let's continue to sample the monitoring wells
10 up there.

11 So I want to make sure that that is kind of
12 totally understood by folks, you know, here, that we are
13 really talking about how to put a pencil on a paper here,
14 that other parts of the sampling program are intended so
15 that the sampling goes on, the data is collected, and we
16 build that scientific understanding for both the people in
17 this room and for Dr. Izbicki to move forward.

18 I just want to make sure that folks don't think
19 that if there is a decision made to draw something
20 different that anything substantial that's going to change
21 in terms of the data that we get or the information that
22 we have or the degree of protectiveness that's being
23 afforded to people up there. We are still going to sample
24 people's wells up there, regardless of whether or not
25 there's a line on the map.

1 So I think that is important to keep in mind to
2 the earlier observation of trying to figure out the size
3 of the container. I feel like this is more of a
4 cosmetic -- it's important, no doubt, but the sampling
5 will go on, and that's our intent. We want to make sure
6 that we're getting all the data so we can remain solid
7 citizens.

8 MR. SMITH: Doug Smith.

9 I just want to add a couple of things before
10 concluding observations here.

11 So the word "uncertain" was a big word for us,
12 and that actually came from the consensus text from the
13 prosecution team at PG&E, when they submitted their
14 information to us. They said that the background chromium
15 concentrations in the north were uncertain. And so what
16 we did is, rather than disputing that, the advisory team
17 took that consensus text and we wove it throughout this,
18 trying to go off of that. When background concentrations
19 are uncertain, then we looked at the chrome in the north
20 and mapping it.

21 One thing that we didn't do, and then all of
22 your comments have helped us realize this, is in the
23 mapping requirements, we did not differentiate between the
24 southern plume, mapping the southern plume and mapping the
25 northern, as what we are calling the uncertain plume, so

1 we didn't make that distinction, and maybe we need to.

2 MS. KAPAHI: Yes?

3 MR. BANKS: Daron Banks.

4 You're saying that the uncertain is uncertainty
5 of the background, but the background is important in a
6 situation but most important is the contamination, what
7 they're responsible for.

8 So we are certain, at least even you guys
9 believe that it's to the north. And the data and the
10 science shows that also. It was, what, six months ago, a
11 year ago, they were wanting to almost take out the
12 majority of the testing, so we don't need to do this.
13 They just threw things to the wall and hope something
14 sticks.

15 Well, we need to continue because three years
16 ago, two years ago, one year ago, the Board's stance was
17 we are not going to change the background number until
18 there's another study and we have that number. This is
19 the number; okay?

20 In the order, it even changes the word from
21 background to -- what was it -- interim number. That's
22 not how the Board -- not what their stance is for years,
23 and that's what the community had to live with and deal
24 with and how we had to argue our position.

25 So the Board needs to stick to what they said,

1 you know, have the integrity to stand on your own two feet
2 and finish what we started. This has taken a lot of work
3 and a lot of time on everybody's part to get to this
4 point. So, you know, it's not uncertain. We're pretty
5 confident that PG&E's Chromium 6 is north.

6 So you want to write on there, uncertain what
7 the background is? That's different. That's completely
8 different. So -- and that's all I have to say.

9 MS. KAPAHI: Okay. Anymore questions on this?

10 If there are no further questions about this
11 one, I'll move to the next one.

12 MR. SMITH: This is Doug Smith.

13 The next issue that we attempted to tackle was
14 the replacement water requirements, and those are on
15 pages, probably, oh, there they are. They're on pages
16 1-30, 1-31. And Kim Niemeyer is going to --

17 MS. NIEMEYER: So these changes had to do with when
18 we were going to require -- well, not when, but some of
19 the details of long-term replacement water supply. So one
20 of the first changes that we made was instead of using the
21 term MCL, we changed that to drinking water standard, and
22 we did that because I think it is more clear for people to
23 understand that the MCL is the drinking water standard.

24 Another change that we made was -- let's see
25 where we are at -- could you scroll down a little bit

1 further, Sue?

2 It's actually right there, too. So instead of
3 indoor uses for -- it says replacement water supply for
4 all indoor uses was taken out, and we substituted drinking
5 and cooking uses, and this, in part, is because of the
6 information that came from -- we had back in 2011, we had
7 opined that the health risk from hexavalent chromium was
8 ingestion, and there was no risk from inhalation or very
9 small risk, and so we couldn't -- we can't really require
10 all indoor uses to be provided for, but we can for
11 drinking and cooking to protect public health. So
12 anything that is above the MCL or the drinking water
13 standards.

14 So we do need to add a finding, I believe, to
15 refer back to that original letter from the -- the
16 information from there in order to support that, and we
17 will do that.

18 The next change was on the next page, Sue, if
19 you could scroll down, starts within 45 days.

20 So the order had originally required for each
21 exceedance of the drinking water standard for there to be
22 a plan provided by PG&E for long-term replacement water,
23 and we are still requiring that, but one of the requests
24 that we had heard from PG&E was, you know, can we provide
25 one plan up front, and it will still have those same

1 requirements and we're going to go with that because doing
2 each plan over and over didn't seem appropriate.

3 But I think, you know, looking at this, we're
4 open to ideas because, of course, there would be instances
5 where we have this one plan that may be generic, and when
6 we have exceedances, of course, each person's situation
7 would be unique. And so, you know, ideas that you have
8 for how we can incorporate some of those individual
9 site-specific information, we would be interested in, but
10 having the same report for each time didn't seem -- seemed
11 to overkill.

12 I think those were the major changes that we
13 made. I'm just looking through my notes real quick, if I
14 can find my glasses.

15 One other change that we made in that same
16 paragraph was we are requiring that the plan, of course,
17 be implemented for the long-term replacement drinking
18 water supply, after the written authorization from the
19 well owner. So we ran into this before. And it is just
20 obvious that they can't actually implement a plan if
21 someone doesn't want the plan to be implemented. So this
22 is just making it clear that there is no obligation if
23 someone does not want that long-term replacement water.
24 So those are all the changes that we made.

25 There is some consolidation between C and D on

1 some of the requirements, but those were the major issues
2 that we changed.

3 MS. KAPAHI: Questions?

4 MS. KEMPER: I'm Lauri Kemper with the prosecution
5 team.

6 Thank you for the explanation on the cooking and
7 drinking. Are you aware, then, that this change in the
8 requirement would allow just the use of under-the-sink
9 type treatment systems rather than full house wellhead
10 treatment at the location of the well? Are you aware of
11 that?

12 MS. NIEMEYER: Yes.

13 MS. KEMPER: That this change order will result in
14 that type of -- and then I have some follow-up questions.

15 By receiving -- first of all, I want to let the
16 public know and the Board know that we don't expect
17 chromium concentrations to change very rapidly or very
18 quickly, and so part of having a plan evaluate different
19 types of treatment was to allow time to pass.

20 So my question is, how will new technology be
21 evaluated as it comes onto the market? How would you
22 propose that be evaluated?

23 MS. NIEMEYER: That is a good point. So I think that
24 we would have to probably incorporate that in somehow,
25 because, you know, currently, the plan has just required

1 45 days after the order so that we probably would want
2 some -- maybe after -- maybe after there was an
3 identification of an exceedance that PG&E would have to go
4 back and look at that plan and maybe ensure that there
5 weren't -- you know, not only looking at the individual
6 situations of that particular well, but perhaps having to
7 consider new technologies, so we'll think about ways to
8 incorporate that.

9 MS. KEMPER: I was going to ask if you were aware
10 that currently there is no certified -- there are no
11 certified treatment units that meet the new State drinking
12 water standard. Is that something that the division of
13 drinking water is just embarking on, coming up with a
14 certification program and a testing program?

15 MS. NIEMEYER: Right.

16 MS. KAPAHI: Yes. Daron?

17 MR. BANKS: Daron Banks.

18 I'll do most of the comments in writing, but up
19 above we saw the word "uncertain," and so when you take
20 that word "uncertain" and take it from a map to a context,
21 it takes on a whole other meaning. So, again, I mean,
22 it's a strong word, and it's not appropriate on this
23 occasion.

24 MS. KAPAHI: Okay. Are there comments, points of
25 clarification? More discussion? Was there another

1 section?

2 MR. SMITH: Doug Smith.

3 So the fourth item that -- the main item that
4 the advisory team did was to add some things. We added
5 some text to some of the findings. And we added an
6 attachment, Attachment 9, which is a summary of the
7 submittal and performance requirements. And if you want
8 to look, those start on page 1-105. So we tried to
9 capture all the requirements here in one easy-to-locate
10 spot for reference. Because this is quite a long order.
11 And we divided it up into two parts.

12 Submittal requirements, those are monitoring
13 reports, data, information, things like that.
14 Notification if something happens, and then the
15 performance requirement is something for PG&E to achieve,
16 like clean up the lower aquifer, remove all of PG&E's
17 discharge into the lower aquifer, things like that.
18 Achieve these certain performance standards. And, anyway,
19 so that's one thing that we did.

20 Going back to the findings, we had added some
21 findings on the last page of the order, but it's on -- on
22 Bates page 119 and 120, which is 14 and 15 of the order,
23 we added some findings to document some of the public
24 information and outreach components that the Board has
25 conducted and gone through.

1 So the record reflected all the input that was
2 received at those workshops and some of the things -- and
3 some of the comments that were received at that time. And
4 we did some modifications in some of the findings
5 throughout, and you will see that. You know, we made lots
6 of different changes, and I could go through them. But I
7 think there wasn't one significant issue that I didn't
8 need to point out. But I will take questions.

9 MR. BOOTH: Rich Booth.

10 On Attachment 9, the summary of the performance
11 requirements and of the submittal requirements, please --
12 I would just want to make a disclaimer that there's an
13 oversight in there. It's a mistake. It's not a -- I had
14 trouble going through this with my own pea brain, so
15 please find any errors and let me know oversights.
16 Similar to the oversight as the prosecution team pointed
17 out, by the way, this is -- I just want to say this is --
18 the prosecution team pointed out that there was a work
19 plan for the lower aquifer remediation that we
20 inadvertently struck out, should not have struck out, is
21 how this is supposed to work.

22 We need make a mistake, prosecution team tells
23 us, in this audience, how embarrassing it may be. I think
24 it is a great venue for everyone to see how this
25 separation of functions work. So I just want to make that

1 little editorial comment. Thanks.

2 MS. KAPAHI: Comments, questions, clarifications?

3 MR. SMITH: Doug Smith again.

4 So we had originally noticed this to take a
5 dinner break at 5:00. Looks like we may break a little
6 early, if that is okay.

7 And what our intent for the evening was is to
8 do, when we reconvene, when the Board reconvenes here at
9 7:00 o'clock, is to essentially do the same thing, to
10 extend -- do the same sort of workshop for the folks,
11 especially the Hinkley community folks who weren't able to
12 make it at the earlier session, and others.

13 And what we're intending to do is do a recap of
14 what was said and some of the things that were asked and
15 kind of recap that, rehash it into a shortened abridged
16 version so that we've asked -- excuse me?

17 MS. NIEMEYER: I said a one-hour version.

18 MR. SMITH: A one-hour version, yes, very short.

19 And we have asked the prosecution team and PG&E
20 to get up and do a shortened version of what they
21 presented and restate some of the questions that were
22 asked and what some of those answers were for the public's
23 benefit. Okay? So...

24 MS. KAPAHI: But there won't be a back and forth of
25 the questions -- we won't rehash the same questions.

1 It'll just be a summary of what was heard earlier. There
2 will be other folks in the audience, perhaps.

3 MS. NIEMEYER: This is Kim Niemeyer.

4 In addition to that, we also have, which is very
5 important, we want to get to is the update that Lisa is
6 going to provide on things that have been going on since
7 we last met on the cleanup and abatement; so we really
8 want to get to that, the status report, and then a public
9 forum.

10 So what we're planning on is getting up, kind of
11 summarizing what had happened. Of course, there are going
12 to be people that weren't here, so we want to give them
13 the opportunity to ask some questions and comments, so try
14 to keep some of the same questions and comments that we
15 had earlier to a minimum, and we'll try and summarize
16 that. Okay.

17 MR. SMITH: Doug Smith.

18 I do want to add this information for folks who
19 are unable to make it back for the evening session, that
20 our sort of next steps on this, what we're going to do is
21 we're going to take all the comments that we received on
22 September 30th, the advisory team is going to evaluate
23 that, plus all the input that we've received today, and at
24 the May workshop and all the other previous comments, put
25 all that together and get something out, get a proposed

1 order out shortly thereafter. Don't want to say exactly
2 what day.

3 MS. KAPAHI: Sometime between September 30th and
4 November 4th.

5 MR. SMITH: Yes.

6 MS. KAPAHI: But way in advance of that.

7 MR. SMITH: Way in advance.

8 MS. KAPAHI: So people have a chance to digest it
9 before the November 4th meeting.

10 MR. SMITH: Yes, yes.

11 MS. KAPAHI: And I have in my notes that the
12 information that comes of this, the comments, there would
13 be three avenues where you can find the information, the
14 information will be posted on the web. It will be sent to
15 the Lyris list and e-mailed to those folks that regularly
16 participate. If you do not have access to the web or need
17 other ways of getting it, if you could please see me at
18 some point in time, give me your contact information, I
19 will make sure that you receive the information.

20 MS. KOUYOUMDJIAN: I just want to say something to
21 all participants and the Board.

22 I want to thank all of you for coming this
23 evening. This is an interim process. We heard what you
24 like and didn't like and ideas for changes. So what you
25 are going to give us in your comments will be much

1 appreciated, and as you have heard from us, it's not set
2 in stone. And that's what we want to talk to you about.

3 MR. SULLIVAN: Can I ask if we'll be able -- process
4 questions so we don't drag out this evening. So comments
5 on the 30th, then the Water Board will prepare -- the
6 advisory committee will prepare essentially a final draft,
7 and that will be just sometime before November, and then
8 there is no -- there is no more written comments at that
9 point. If there is anything, you know, major or anything
10 that is to be brought up at the November 4th meeting, I'm
11 just trying to make sure everybody is clear on steps after
12 that.

13 MS. NIEMEYER: Kim Niemeyer.

14 We don't intend to have another comment period
15 because we don't intend -- I mean, we intend to make some
16 changes based on this information, but I think pretty much
17 everything that we have here with some tweaks is what we
18 plan to present; so there won't be another comment period.
19 If there was a big change, then we would consider putting
20 that big change out for a comment period.

21 MS. KEMPER: Question. Lauri Kemper.

22 Question on process then. Do you envision at
23 the November 4th and 5th Board meeting that it would be a
24 public hearing and people would be able to speak? Would
25 they be given time limits? Would they be able to present

1 slides, or is that going to be laid out --

2 MS. NIEMEYER: When we put out the final draft for
3 the Board's consideration, we will also put out the
4 hearing procedures that we plan to have for that date.

5 MS. KEMPER: For that date.

6 MS. NIEMEYER: And that would include, yeah, exactly
7 what you're saying, so time periods and --

8 MS. KEMPER: Time periods.

9 MS. NIEMEYER: -- the process --

10 MS. KAPAHI: So is everybody clear, then? So before
11 we take our dinner break, the dinner break will be from
12 when we end, and we will resume at 7:00 p.m. here in the
13 same place.

14 For those of you that can't come back, remember
15 that written comments are due September 30th, and with
16 that, I think that we will recap at 7:00 o'clock and then
17 have other folks with us. And we'll go over a summary of
18 what we've done.

19 MR. KILLIAM: Roger Killiam.

20 The hard work that you have all done to put this
21 together, we don't all agree on everything that is in
22 there, that's for sure. But we do recognize that you have
23 worked very hard to put this together and listen to our
24 comments, and we just want to say thank you.

25 MS. KAPAHI: Thank you, sir. And I want to thank

1 everyone for spending some time here today, and in the
2 past, and hopefully in the future. Thank you for all your
3 endless and tireless help on all of this.

4 (A recess was taken from
5 4:35 p.m. to 7:00 p.m.)

6 CHAIR COX: It's 7:00 p.m. We would like to welcome
7 all of you back. Hope you had a good dinner recess, and
8 we are excited to hear the summary presented by Staff of
9 comments earlier.

10 Ms. Kouyoumdjian, do you have anything you want
11 to say?

12 MS. KOUYOUMDJIAN: No. I'm going to hand it over to
13 Gita, if you want a show of hands.

14 MS. KAPAHI: Yes. So if I could get a show of hands,
15 is there anybody here this evening now here at
16 7:00 o'clock that was not here this afternoon?

17 If I can have a show of hands?

18 Seeing none, then there is no need to really go
19 into a great deal of depth in terms of a recap; so I will
20 turn it back over to you.

21 MS. KOUYOUMDJIAN: Are you doing the summary?

22 MS. NIEMEYER: Well, I think we were just going to
23 kind of go through the same order that we did before.

24 MS. KAPAHI: Okay. A very brief recap.

25 Could you go over the key questions and the

1 context?

2 MS. NIEMEYER: So something that Board member Horne
3 has asked us to do is kind of give a context; so maybe
4 Gloria had asked you to jump into -- I know you're not
5 prepared for this, but for why we are doing this right
6 now, why are we changing the CAO at this time? What is
7 kind of going on?

8 And so as you recall, we worked on the
9 environmental impact report, and we looked at kind of all
10 the different potential impacts to the remediation from
11 the remediation that could occur. Prior to that, we had a
12 feasibility study from PG&E kind of identifying the
13 different remediation technologies that they could
14 implement.

15 So, in part, the reason why we are doing this
16 now is to start moving forward, to start allowing those
17 cleanup activities to not only occur, but to expand. So
18 previously, we had pilot studies for the in-situ
19 treatment, we had smaller cleanups going on for the
20 agricultural treatment units, but now we are allowing that
21 to expand and to move forward and to really jump into the
22 cleanup.

23 MS. KEMPER: My name is Lori Kemper, executive
24 officer, prosecution team leader.

25 And what Kim says is all correct, and I think it

1 is just important to realize that really -- I don't want
2 to use the world culmination, because it's not a
3 culmination because our orders have changed, but, you
4 know, but we started down a path several years ago.

5 MS. HOLDEN: 2010.

6 MS. KEMPER: We asked Anne Holden to assist Lisa
7 Dernbach because of the workload, but it really did -- it
8 was because we had put an order on PG&E requiring them to
9 look at the techniques, after all those pilot studies, to
10 look at how quickly could they clean up the plume. And
11 that feasibility study went through several iterations,
12 and we got those cleanup times down.

13 And then as a result of that study, we had to do
14 the environmental impact report to look at the impacts of
15 the potential remediation. The Board has taken several
16 actions along that path. They've adopted -- they
17 certified the EIR, they adopted the site-wide agricultural
18 treatment requirements which right now allows PG&E to
19 expand that treatment, and we'll hear more about that on
20 the status report item, stuff that has happened this year,
21 and then the noticeable feasibilities for the interim --
22 for the in-situ remediation zone is allowing expansions.

23 So those things are in place now, or in the
24 works. We're willing to give the final notes to the
25 increased ethanol objection. So the cleanup order is the

1 order where the Board gets to set its expectations. We
2 have heard from PG&E. They have given us a feasibility
3 report. They've given us a plan that implemented it.
4 We've given them permission to implement their plan. The
5 cleanup order is really this chance for the Board to set
6 very clear guideposts, you know, monitoring requirements,
7 cleanup, interim standards to hold them accountable
8 because without the cleanup order, PG&E doesn't have those
9 kinds of things to measure the Board's expected progress
10 because they can -- they can do twice as much as you might
11 set as a goal. I mean, they are authorized to do that
12 under the permits that we have given them.

13 But the cleanup order is a chance for you to set
14 these accountable, you know, interim targets, whatever you
15 want to call them. They're requirements that you can pose
16 on PG&E at this stage of the game, and so we are at that
17 stage, and we're also at the stage of saying we need to
18 update these old orders because so much has happened, you
19 know, since then.

20 So it is a chance at this point to set in motion
21 the next several years' activities in terms of the actual
22 level of effort and the extent of cleaning up you would
23 expect from PG&E. And then we recognize that once we get
24 the background study results in hand, more likely 2020,
25 you know, five years from now, then there will be an

1 opportunity for the Board to make adjustments to this
2 cleanup.

3 CHAIR COX: Background, hopefully?

4 MS. KOUYOUMDJIAN: So in the prosecution team, did
5 you have any summary of things you wanted to offer
6 from -- Kevin, from earlier?

7 Then I'm going to ask Kim or Doug to go
8 through the list.

9 MS. NIEMEYER: I guess we would just sort of
10 summarize sort of what we heard, and if there are things
11 that we didn't catch, let us know.

12 Again, the best way to really let us know is
13 written comments by September 30th. So I guess I'll
14 start, you know. I talked about we changed the MCL to
15 drinking water standard. I also talked about changing the
16 requirements for replacement water from -- for indoor uses
17 to -- for drinking and cooking, and I recognized that we
18 were going to need to add a finding to support that, we
19 were going to cite back to that letter, and then we also
20 heard a concern that this could lead to the use of
21 under-sink systems which have not yet been certified by
22 the department of drinking water for chromium; so that is
23 a concern that we heard.

24 I talked about where this long-term replacement
25 water requiring one plan, 45 days after the order as

1 opposed to plans 45 days after each occurrence of
2 exceedance of MCL, and I heard the concern that this may
3 not take into account new technologies, and I recognize
4 that we may want to somehow acknowledge a requirement to
5 look at the specifics of that well and that well, what
6 they may need because that plan for -- that plan may be
7 generic and may need to take more site-specific
8 considerations.

9 Then I talked about that we had a requirement
10 before implementation of the long-term plan that we are
11 going to require the well owner approval, and that was it
12 on our summary -- my summary.

13 MR. SMITH: Doug Smith, Water Board advisory team.

14 I'm not going to go over all the things that I
15 said with regard to changes, but I will go over some of
16 the concerns that we heard, and I hope I captured them
17 correctly. We heard lots of things, so be patient.

18 We heard that the mapping and plume definition
19 requirements would give different looking maps than what
20 has been produced in the past, and that the mapping
21 requirements may exclude the possibility of considering
22 that high Chrome 6 values in the north as linked to PG&E's
23 discharge.

24 Another concern that we heard is that there may
25 be unintended consequences of adopting these new mapping

1 requirements, including the increased staff workload and
2 public perception changes. And we heard that there's no
3 process in the draft order for resolving differences in
4 best professional judgments, and there's a concern about
5 having a dispute over the same issue every single quarter,
6 what do we do about that? So we heard those things. We
7 don't have the answers right now, but these are great
8 things that we heard.

9 And we also heard that we should wait for the
10 background study results before changing these
11 requirements. We'll get to Rich's issue in just a bit,
12 but let me address while I'm up here.

13 The word "uncertain," we heard lots of comments
14 on that. Regarding the "uncertain" word, we heard that we
15 shouldn't use that term since there is certainty that
16 groundwater has flowed to the north and that there's
17 certainty that there is chrome in the north and that the
18 draft order is unclear how the word "uncertain" is to be
19 applied.

20 We also heard that there is -- while there is
21 uncertainty in the background number in the north amongst
22 some folks, there is certainty that there is chrome in the
23 north. And then we also -- and then switching subjects
24 while I'm still up here, okay, I'm all about efficiency --
25 we heard questions about next steps in the process and

1 comments and things like that.

2 And so what we had said -- and this is really
3 important to us -- is that written comments are due
4 September 30th, and we really encourage everybody to get
5 their written comments to us. And the advisory team will
6 take all those written comments and produce a draft.
7 Roughly, we're going to say, roughly, ten days, hopefully
8 a little bit sooner before the November 4th Board meeting.
9 Okay? That is our hope and dream, and we are going to
10 do -- we will do it. Okay?

11 At the Board meeting, there is the opportunity
12 for the public and other folks to come up to the podium
13 and add oral comments; okay? So it's -- so although the
14 written comment period has ended, there is a chance for
15 oral comments on those issues. And that is very
16 important. The Board needs input to make the best
17 decision it can; so we value all of that input.

18 So with that, the last issue, since I talked
19 about the plume mapping and definition requirements, the
20 requirements in the lower aquifer, and I'm going to ask
21 Rich Booth to come up and talk about that.

22 MR. BOOTH: Thanks Doug. Rich Booth, advisory team
23 member.

24 I'm going to speak very briefly about the item
25 known as cleanup in the lower aquifer that we discussed

1 this afternoon. This is the one where the advisory team
2 deleted information from the original order for processes
3 that have already been completed. And we -- for example,
4 we deleted breach and maintain non-detectable chromium
5 concentrations in the lower aquifer, replaced it to clean
6 up and abate Chrome 6 that is linked to PG&E's historical
7 discharge.

8 Comments we heard included and were -- the
9 envelope, please -- that we need to leave the work plan in
10 the order to specify the progress for PG&E to do this
11 remediation, so we need to leave the existing work plan
12 that is in the original order or something equivalent.

13 We heard that there is sufficient data for a
14 finding that background is non-detect; so that data is
15 apparently available and should be considered as a
16 finding, if such a conclusion can be reached.

17 And finally, thirdly, it may be -- we heard a
18 comment that it may be technically and economically
19 feasible to clean up the Chrome 6 in the lower aquifer to
20 background.

21 Anything else I might have missed?

22 MS. KEMPER: I would just -- my name is Lauri Kemper
23 and I'm with the prosecution team.

24 In addition to what you said, Rich, we also
25 think that because of the small area and volume and mass

1 associated with the lower aquifer contamination that it's
2 reasonable to clean it up in a short time frame, within
3 several years.

4 CHAIR COX: Thank you. Any final comments?

5 MS. NIEMEYER: Just if there are any other items that
6 we missed or anyone want to add something that maybe
7 they're thinking about now? We have some time. In our
8 attempt to be efficient, I think that we have plenty of
9 time.

10 MS. KOUYOUMDJIAN: Regarding comment opportunity, I
11 just want to rewrite what Doug had said, that we will have
12 an opportunity to, when the draft is out in the street, to
13 revise the draft, for you to come to the Board and comment
14 because that's where --

15 CHAIR COX: Lauri, did you have a last comment? I
16 saw your hand.

17 MS. KEMPER: I guess -- my name is Lori Kemper.

18 I just had a question back to the advisory team
19 of the Board, possibly about the word "interim," the
20 addition of the word interim for the background numbers,
21 because it seems like, you know, up until this point, I
22 was operating under the assumption that we have -- the
23 Board adopted a maximum background concentration that is
24 in effect within current orders, and we thought we were
25 under direction to kind of carry that forward until such

1 time that it changes.

2 And maybe that is all -- and I think when I
3 first read the word interim, I thought this is -- we are
4 trying to recognize that there is a background study
5 underway, but after hearing Daron kind of expressing a
6 similar concern of mine, I thought that it was maybe being
7 put in there because the community had earlier, in their
8 comments, in their written comments on our original draft,
9 they had emphasized that we hadn't put enough language in
10 this order about the \$5 million, and the new study
11 underway, that he felt -- they expressed that at some
12 public meeting that this was really important to them, and
13 they're all waiting for these results and that it is --
14 they didn't feel like we said enough about it in the
15 cleanup order, and I just want the Board to know that we
16 didn't because we didn't really see that it was relevant
17 to this particular order at this point in time.

18 Knowing that as information comes in, the Board,
19 you know, can make changes, so I may have gotten that
20 totally wrong, and I know Peter is shaking his head, and I
21 know it is relevant to what we are doing, and it does
22 relate to uncertainties, but I just wanted to know if
23 there was anything else behind the word "interim" or folks
24 wanted to express how they think about that word, because
25 I'm operating under a different order of the Board at this

1 point.

2 CHAIR COX: Turn to the Board and see if there is any
3 comments. Dr. Horne?

4 MS. HORNE: I just have a question for Kim Niemeyer,
5 which is -- so the process that was outlined about, you
6 know, written comments by the 30th, new version, so
7 that's -- what happens if there -- so that is a scenario
8 in which what kind of changes might be made, and if there
9 are significant changes, then what would be the processes.

10 MS. NIEMEYER: Kim Niemeyer.

11 If there was a change that was completely not
12 reflected by comments that we heard, that we did something
13 that wasn't reflected by what we heard here, then we may
14 want to have another 30-day comment period, but our
15 anticipation is that the changes that we're making are
16 basically coming out of this process, and so we wouldn't
17 have another comment period.

18 You know, if someone raised a concern that this
19 is something completely new and I have never seen this or
20 heard of this idea, and this is not a national outgrowth
21 of the comments that we heard and the draft that we had,
22 then we would consider having another 30-day comment
23 period, but I don't anticipate that.

24 CHAIR COX: Any other comments?

25 I would like to thank you for your facilitation,

1 I was just thrilled to hear the dialogue.

2 Mr. Pumphrey?

3 MR. PUMPHREY: Dr. Horne really spoke to my concern
4 but I think I -- I am really pleased with where this
5 process has taken us in terms of the quality of the
6 conversation among all of the players and also in terms of
7 the idea that we've gotten each time we've done this to
8 really re-examine what we've done with a whole bunch of
9 different eyes and to see that not everybody read the
10 document in the same way.

11 And everytime you do that, you see where you
12 have created problems that you might be able to work
13 through by trying to look at the document in a way that
14 instead of I brought you to -- so I would hope, I'm
15 anxious, we are all anxious to bring this process to a
16 conclusion and to put ourselves in a position where we can
17 go forward, closing sort of the door of one process and
18 opening perhaps the door to some other possibilities here.

19 On the other hand, I think we are all -- because
20 of the time you all have spent in working on this process
21 -- really committed to and concerned about making this
22 right and doing this correctly; so I would want to not be
23 so wedded to the idea that there is something magical
24 about November 4th.

25 DR. HORNE: Or this document.

1 MR. PUMPHREY: You want to finish for me? Yes, you
2 do; so go ahead.

3 DR. HORNE: We have an open mind. That is an
4 important point to make. Our mind is open. And so that's
5 my only point.

6 You can continue.

7 MR. PUMPHREY: Thank you.

8 I think that today there was some ideas that
9 could be followed up on that are different ways to look at
10 the subjects that we were speaking of that might make this
11 document look significantly different, but also achieve
12 the end that we are looking for. So if that happens, I
13 would much prefer that we give people the opportunity to
14 continue to exchange their ideas, fine tune that exchange
15 of ideas and put it out for another review of, oh, yeah, I
16 think we captured what we heard, but we want to make sure,
17 rather than just rush to accommodate this arbitrary
18 schedule.

19 Like I say, I can't imagine, oh, I know it's a
20 fact that there are people in this room more anxious than
21 I am to see this come to a conclusion. There are times
22 when it is hard for me to imagine that to be true. On the
23 other hand, I really want to make sure that what we end up
24 with as a product is the very, very best we could possibly
25 have done.

1 CHAIR COX: Thank you, Mr. Pumphrey.

2 And I think the comments you heard from the
3 Board just exemplify the importance of your input that we
4 invite, that we're listening, we're deliberative, and we
5 want to learn, and just like you, we want the best outcome
6 for this process.

7 Gita, did you have something?

8 MS. KAPAHI: There is one public comment on this item
9 from Daron Banks.

10 MR. BANKS: I'm sorry, Daron Banks, Hinkley.

11 Something that -- I came in a little bit late,
12 so -- and I didn't get to add in the discussion earlier
13 was the way that the CAO or the draft CAO read about how
14 the maps can come out. You just need one certified
15 engineer to -- and it is extremely vague, and it greatly
16 concerns myself and others that it's the fox watching the
17 henhouse because one thing that we all honestly can see,
18 if you allow PG&E to have their own perception of what the
19 plume looks like, it doesn't necessarily always follow the
20 orders that is drafted by this Board.

21 They -- they put their own interpretation of it
22 as opposed to following the order, and then they put the
23 little side bar on the side, but it's not following the
24 order of the Board.

25 And so my current concern is, No. 1, that it is

1 extremely vague and to kind of reiterate the fact that
2 there was no process for issues that will come up, because
3 they certainly will come up because they always do.

4 So that, to me, was another huge issue that I
5 just -- I really was blown away that that was even written
6 in. I didn't understand it, and then the half-mile
7 boundary, I mean, all of these are put in for public
8 safety and for reasons, and so when the discussion of
9 taking out that boundary, it's okay for us to admit that,
10 you know, hey, the contamination is there, and PG&E
11 created it, and at this point, none of us has any idea,
12 regardless of what the corporation thinks, none of us have
13 any idea where that Chromium 6 is. until Dr. Izbicki is
14 able to tell us after a study, you know, there is tons of
15 questions, unanswered questions.

16 So, you know, these changes are extremely scary
17 and very disheartening, especially for those of us, like I
18 said earlier, that have worked hours and hours and hours
19 alongside of your enforcement team and PG&E and others to
20 get to this point, and so I just ask that the Board
21 consider that because the initial reason for doing this
22 was to trim the fat. It wasn't to get a new cow. I mean,
23 it's -- this is more than trimming the fat. This is
24 changing the entire CAO.

25 So the whole house replacement, I understand

1 that the guidelines of, you know, that they're saying
2 drinking it is worse than breathing it, but there still is
3 a health risk. So because it's a health risk, it needs to
4 be continued in the whole house replacement. If we -- at
5 some point in time, that whole house replacement does come
6 back into effect, for whatever reason, we need to be
7 concerned with the whole health, not of just, oh, it's a
8 minimum risk. So -- and that's the Board's
9 responsibility. And that's all I had to say.

10 Thank you.

11 CHAIR COX: Anyone else wishing to make a comment on
12 Item 1 before we move on?

13 With that, we'll move on to Item No. 2, status
14 report on activities concerning chromium contamination
15 from Pacific Gas and Electric compressor station.

16 (At 7:30 p.m., the proceedings
17 were concluded.)

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1 STATE OF CALIFORNIA)
2 COUNTY OF LOS ANGELES) ss.

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I, ANN BONNETTE, C.S.R. No. 6108, do hereby
certify:

That the foregoing meeting of the Regional Board
Public Meeting was taken before me at the time and place
therein set forth and was taken down by me in shorthand
and transcribed into computer-generated text under my
direction and supervision; and I hereby certify the
foregoing transcript of my shorthand notes so taken.

I further certify that I am neither counsel for nor
related to any party to said meeting nor in any way
interested in the outcome thereof.

IN WITNESS WHEREOF, I have hereunto subscribed my
name this 22nd day of September, 2015.

ANN BONNETTE, CSR NO. 6108