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6 NAVAL WEAPONS STATION SEAL BEACH
7 DETACHMENT CONCORD
8 RESTORATION ADVISORY BOARD
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12 REPORTER'S TRANSCRIPT
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14 April 22, 2002
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1 FACILITATOR: RUDY PONTEMAYOR - U.S. Navy
CO-CHAIRS: MARCUS O'CONNELL - Concord Resident
RUDY PONTEMAYOR - U.S. Navy
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4 RAB ATTENDEES
5 JOHN BOSCHE - Tetra Tech EMI
6 DAVID GRIFFITH - City of Concord
7 DEAN McLEOD - Contra Costa County Historical Society
8 LAURENT MEILLIER - Regional Water Quality Control Board
9 JIM PINASCO - Department of Toxic Substance Control
10 PHILLIP RAMSEY - U.S. EPA
11 GIL RIVERA - U.S. Navy
12 GAY TANASESCU - Bay Point Resident
13 MARY LOU WILLIAMS - Concord Resident
14 OTHER ATTENDEES
15 DAVID BAILLIE - U.S. Navy
16 DAVID COOPER - U.S. EPA
17 MARY GLEASON - Tetra Tech EMI
18 BILL HOWELL
19 CAROLYN HUNTER - Tetra Tech EMI
20 TOM PINARD - U.S. Navy
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1 CLYDE, CALIFORNIA, MONDAY, APRIL 22, 2002, 7:09 P.M.
2 ---o0o---
3 MR. PONTEMAYOR: Good afternoon, ladies and
4 gentlemen. The meeting will please come to order.
5 My name is Rudy Pontemayor, Navy co-chair, and
6 I'd like to introduce a guest from Seal Beach, my
7 environmental director, Mr. David Baillie, sitting at
8 the back.
9 MR. BAILLIE: Good evening, everyone. Met a
10 couple of you, but pleasure to meet your.
11 MR. PONTEMAYOR: Thank you.
12 And with that, let's go around the room,
13 starting with Gil here, to reintroduce ourselves.
14 MR. RIVERA: My name is Gil Rivera. I'm the
15 Navy project manager for the installation/restoration
16 program at Concord.
17 MR. MEILLIER: My name is Laurent Meillier. I
18 work for the Regional Water Quality Control Board in
19 Oakland.
20 MR. RAMSEY: Good evening. I'm Phillip Ramsey,
21 United States Environmental Protection Agency.
22 MR. PINASCO: Jim Pinasco, Department of Toxic
23 Substance Control.
24 MS. WILLIAMS: Mary Lou Williams, RAB.
25 MR. PINARD: Tom Pinard, Navy Public Affairs,
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1 San Francisco.
2 MS. GLEASON: Mary Gleason, Tetra Tech.
3 MR. PONTEMAYOR: Dave.
4 MR. COOPER: Sorry. David Cooper, U.S. EPA.
5 MR. BOSCHE: John Bosche, Tetra Tech.
6 MR. GRIFFITH: Dave Griffith, City of Concord.
7 MR. McLEOD: Dean McLeod, Contra Costa
8 Historical Society.
9 MS. TANASESCU: Gay Tanasescu, Bay Point.
10 MR. O'CONNELL: Marcus O'Connell, city of
11 Concord -- resident of Concord and community co-chair.
12 MR. PONTEMAYOR: Thank you.
13 Does everybody have a copy of the agenda? Any
14 recommended changes that you may want to see here?
15 I have one. The change I would recommend is
16 since our consultant is hard-pressed for time, if we
17 could move out the technical presentation instead of
18 follow-up actions, if that's acceptable to the board, so
19 that we can have more time for questions later on.
20 Is that agreeable?
21 Very well. Thank you. We'll discuss it first,
22 and then follow-up actions after that.
23 I will turn over the meeting to the community
24 co-chair for approval of the March 4th agenda -- I mean,
25 I'm sorry, meeting minutes.
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1 MR. O'CONNELL: Okay. I don't know that I have
2 a copy of the March 4th minutes here.
3 MS. HUNTER: I have a copy if you need them.
4 MR. O'CONNELL: I have the ones I got
5 previously at the last meeting, but there were some
6 corrections made to those, and I'm not sure the ones
7 we're going to approve tonight reflect those
8 corrections.
9 MR. PONTEMAYOR: Who doesn't have a copy of the
10 March 4th . . . ?
11 MR. RAMSEY: I've got mine.
12 MR. O'CONNELL: David, do you have March 4th?
13 Do you have it, Dean?
14 MR. PONTEMAYOR: This is dated 28 February.
15 MR. RAMSEY: Marcus, I just have a question for
16 you. At our April 1st RAB meeting, that's when Ray
17 O'Brien asked me about a comment in these March 4th RAB
18 meeting minutes. Since I don't know when you want me to
19 respond, that was an action item essentially for U.S.
20 EPA to assess the accuracy and acceptability of a
21 statement in those meeting minutes. I'm happy to
22 respond wherever you would like me to.
23 MR. O'CONNELL: Let me just ask one quick
24 question first. And that is, if I could ask the
25 consultants if the minutes that we were just given --
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1 Am I correct in assuming that the corrections
2 were not made to these minutes from the last meeting?
3 MS. HUNTER: The corrections were made to the
4 minutes; I just did not bring copies of them tonight.
5 MS. TANASESCU: So we don't have them.
6 MR. O'CONNELL: These are the original version?
7 MS. HUNTER: Those are the original, but the
8 corrections are made.
9 MR. O'CONNELL: Well, I don't think we're going
10 to be able to approve them. If we can't see the minutes
11 this evening, we can't approve what we don't have in our
12 hands.
13 But I think it would be fine, Phillip, for you
14 to make your corrections or comments regarding what Ray
15 O'Brien said.
16 MR. RAMSEY: Right. We just had this kind of a
17 un- -- little -- I almost apologized for my response, I
18 believe, last month as far it -- the request was
19 clarified, that the EPA would go back and just reread
20 that one statement. And just for everyone's
21 clarification, I was on page 5 of the meeting minutes.
22 There is a general summary on the second paragraph after
23 the first sentence which -- second sentence,
24 "Mr. O'Connell is concerned that the pipe will not be
25 properly cleared and that the tide will not be able to
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1 flow through the area. Mr. Ramsey --" this was a
2 question that Mr. O'Brien asked me to respond to the
3 acceptability. "Mr. Ramsey stated that EPA currently is
4 working on resolving these kinds of issues." This is,
5 again, on the March 4th summary for the Navy, not the
6 transcripts.
7 And so, what I did is just went back and looked
8 in the transcripts, which describe the conversation.
9 And I would just refer to everyone that we're back on
10 page 96 of the transcript -- excuse me -- 93 -- page 93
11 and page 94 of the transcript documents the
12 conversation, questions you had, and my response.
13 And so when I go back to the original question
14 on page 5 of the March 4th summary, I really do not have
15 any problem with the Navy's attempt to paraphrase our
16 response. Again, it's -- I think -- Mr. O'Brien's not
17 here, but these kind of general statements are not
18 causing me any kind of great heartburn, so I'm not that
19 particularly concerned that there is a statement that
20 says we're working on these kind of problems.
21 Again, it's -- the transcripts do describe, I
22 think, the conversation accurately. I mean, that's the
23 way that went, so it's fine, basically.
24 MR. O'CONNELL: Okay.
25 MR. PONTEMAYOR: Thank you.
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1 MR. O'CONNELL: I just -- with that I don't
2 think we can approve the minutes tonight because we
3 don't have the corrected version in front of us. So
4 unless there are other comments, I will --
5 Are there any other comments on the minutes?
6 Okay. I will then pass it back to the Navy
7 co-chair for reports and announcements.
8 MR. PONTEMAYOR: Okay. I will turn over now to
9 the RPMS, starting with Mr. Rivera.
10 MR. RIVERA: I didn't --
11 These are the handouts for the Navy's remedial
12 project manager's briefing. I apologize for not having
13 them provided at the outset of the meeting at the front
14 table there.
15 The summary of the events of -- since the last
16 RAB meeting, U.S. EPA and the Navy did convene a
17 conference call on the 19th of April to discuss the site
18 management plan and essentially to update the plan based
19 on the actual information, the actual dates of
20 submittal, and things of that nature, that we had
21 discussed previously.
22 The Navy has prepared an update and has
23 distributed it electronically, and with the updated
24 dates and submittal of the documents will be looking at
25 the site management plan once again to ensure that all
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1 the changes were made as discussed in that meeting.
 2 The Navy -- the EFA West did provide RAB
 3 training technical support on 20 April. The training
 4 was conducted at Concord Naval Weapons Station, and the
 5 three training topics were human health risk assessment,
 6 that was conducted by the Navy Environmental Health
 7 Center of Norfolk, Virginia; the RAB rules and
 8 responsibilities, that was conducted by the community
 9 relations officer from Southwest Division; and the
 10 ecological risk assessment training, that was conducted
 11 by a contractor from Tetra Tech Environmental
 12 Management, Incorporated.
 13 The Navy did have internal meetings on contract
 14 coordination on the 2nd and 16th of April, again,
 15 discussing the availability of prior year funds to close
 16 out the remaining work for this fiscal year. Also
 17 discussed once again were the extension of contract task
 18 orders period of performance.
 19 As I briefed at the last meeting, the technical
 20 completion for all work under the current Navy CLEAN
 21 contract is June 2002, meaning that all the individual
 22 contract task orders must be closed out, meaning that
 23 the last invoices will have to have been processed by
 24 September 2002.
 25 Discussions were held once again to identify

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1 alternative contract vehicles that the Navy EFA West can
 2 use to continue with the work at Concord Naval Weapons
 3 Station in the area of installation/restoration cleanup.
 4 And there was once again a renewed discussion on project
 5 award milestones and budgets.
 6 We are currently -- Navy is currently in the
 7 third quarter of the fiscal year, and the pressure is on
 8 to execute what we have forecasted for the third
 9 quarter. Not only for Concord but for all the other
 10 Navy installations under the footprint or oversight of
 11 Engineering Field Activity West.
 12 That concludes my report. Are there any
 13 questions?
 14 MR. O'CONNELL: Two questions. One, can you
 15 give us some clarification on what is meant by
 16 "alternative contract vehicles"?
 17 MR. RIVERA: Alternative contract vehicles is
 18 my shorthand, I guess, designation of contract vehicles
 19 other than the Navy CLEAN contract.
 20 Southwest Division has lead several contracts
 21 that are available to the Navy in the nine western
 22 states where we can actually execute environmental work.
 23 They are constitute- -- or constituted by firm
 24 fixed-price contract vehicles as well as price -- cost
 25 plus award fee type contracting.

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1 In essence, what we have to do is -- because we
 2 don't have a CLEAN contract we have to look at the
 3 contract work that is ongoing at the present time, look
 4 for a convenient place where we can terminate the
 5 ongoing work and transition to a new contract where we
 6 can finish whatever work -- work is in process.
 7 We also have to look in the out-years, fiscal
 8 year 2003 and out, to see what contract vehicle will be
 9 most suitable for continuing the work. Not all
 10 contracts can do all the type of work that we need done
 11 by the Navy, so we have to look at the specific scopes
 12 of work that these contracts can accomplish and award
 13 the work accordingly.
 14 MR. O'CONNELL: Would a community relations
 15 plan through a separate contract be possible at this
 16 point?
 17 MR. RIVERA: By "a separate contract," do you
 18 mean other than the contracts that are let by Southwest
 19 Division?
 20 MR. O'CONNELL: Other than TtEMI.
 21 MR. RIVERA: That is possible. We can go to
 22 any contract vehicle that we have that can produce or
 23 provide to the Navy the services that we need. Again,
 24 you know, you have to look at the contract, the
 25 specifics of the contract scope of work to see if it's

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1 allowed under that specific vehicle.
 2 MR. O'CONNELL: The second question has to do
 3 with the second item you report here, site management
 4 plan. And I note -- it's my understanding that the site
 5 management plan needs to be completed in June, and
 6 it's -- part of the RAB's mandate is to help prioritize
 7 the projects, which indicates to me that we need input
 8 on the site management plan.
 9 And I'm wondering when -- how we can agendize
 10 that for the RAB in time for us to have meaningful
 11 input. In other words, not for our June meeting, but
 12 sometime in May, so that we can have some back-and-forth
 13 discussion on this so we're not in a position of simply
 14 ratifying a schedule that's presented to us, but
 15 actually have input into the scheduling.
 16 MR. RIVERA: The site management plan -- the
 17 process for coming up with a firm site management plan
 18 is well laid out in the Federal Facility Agreement.
 19 What we have to do is put together a proposal and
 20 discuss it with the agencies before we can actually put
 21 it up for -- for comment. So, it's something that we do
 22 internally, and then the proposal is made, is presented
 23 to the RAB, and the RAB will have input on the site
 24 management plan.
 25 We're looking to start that in the April/May

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1 time frame so we can, you know, have something really
2 well prepared by the June 17th deadline. The current
3 deadline in the FFA falls on a Saturday, I believe. And
4 although I haven't discussed it with my counterpart at
5 the EPA, I was hoping that we could slip it out until
6 Monday, although you may want to do that on the previous
7 Friday.

8 MR. O'CONNELL: Will that be advertised for
9 public comment?

10 MR. RIVERA: I don't know. I really can't
11 answer that accurately at this time. I believe it does,
12 but I'm not positive. So I really --

13 MR. O'CONNELL: Could I have my preference,
14 then, if it is, in fact, going to be reviewed by the
15 public that -- at large, that the RAB have an
16 opportunity to review it prior to its going for public
17 review?

18 MR. RIVERA: The RAB will have the opportunity,
19 ample opportunity to review it in the process. It's one
20 of those things that the proposal is put out for
21 discussion, and then we look at the work that needs to
22 be executed, the schedule in which it has to be
23 executed, and the budget available to do it in. So with
24 those three things running in parallel, it's considered
25 by all parties involved, and we put together the site

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1 management plan accordingly.

2 MR. O'CONNELL: I would appreciate if you would
3 take that into consideration. The point's raised.
4 Thank you.

5 MR. PONTEMAYOR: Thanks, Gil.
6 Phil, do you have any comments to make?

7 MR. RAMSEY: Actually, I would like to add at
8 this point the discussion on the SMP, I mean -- in fact,
9 I believe we've been -- we've been trying to work
10 through the SMP and getting input from you folks
11 currently.

12 You've written a letter back in probably
13 February on the schedules, and we think it's part of the
14 discussion we need to have. The Navy's presented these
15 general schedules to the RAB, and they haven't had an
16 opportunity yet to go through them. And I would work to
17 try to maintain the SMP and accommodate following
18 through.

19 The request is really to the Navy to respond to
20 the RAB requests for changes, but we've been trying to
21 update, make sure the SMP reflects reality, it's
22 updated, and accommodate the requests of the RAB.

23 So I started this -- this has been -- this has
24 been going on, but what we haven't done -- or what the
25 Navy or the agencies haven't done is have a discussion

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1 about what the priorities are and, again, the base-wide
2 big picture, what the sites are and what the priorities
3 are, to give that information to the RAB so we can kind
4 of move that discussion along.

5 You have written us and asked for extensions,
6 and so in a way you may or may not have some factors of
7 priority in that submittal, but that's your -- you're
8 hoping the Navy would take your request, process it,
9 return it back to you to get some input. And so, that's
10 what we're trying to do now is work with the Navy to
11 take the information, the requests you've provided,
12 process that information, and to give it back to you.
13 It's taking awhile to do, unfortunately.

14 But right now the FFA is sitting there in the
15 library without a very -- the SMP is starting to not
16 look like reality, but we've also been hearing the RAB
17 members who have been concerned about the pace. And so
18 from my standpoint I have been in a sense relaxing some
19 of the deliverables. I have been not processing some of
20 the documents and -- for various reasons, but one of
21 those has been because the RAB members have had the
22 concerns about the pace, and it doesn't seem to do any
23 good for us to continue to move these documents along.

24 And we also are having some needs for
25 additional discussions for some of these projects that I

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1 think is -- requires us to slow down a little bit, not
2 worry about some of the other projects. Because we have
3 internal priorities, and we've been trying to
4 communicate that to the RAB, but I think we could do a
5 better job by having a little presentation at some
6 point. I just want to say that about the SMP.

7 Anyways, in terms of the kind of work
8 activities this month from the EPA's standpoint, the
9 kind of things I have been working on, as I've alluded
10 to and made a short discussion of on the 1st, we have --
11 we have received from the Navy -- these are a response
12 to comments on -- this is for Area of Concern 1. We've
13 received responses from the Navy on the preliminary
14 assessment addendum, and that's what's called an action
15 memo, to do the removal action.

16 And EPA has some concerns about the responses
17 we got from the Navy, and so what we're going to do on
18 Thursday is have a meeting with the Navy. And real
19 briefly here, because it's a removal action, the Navy
20 has the authority to do these removal actions, and we
21 don't have the power to stop them, in a general sense.
22 But we want to make sure the removal action doesn't lead
23 to more complications down the road, and so we have some
24 issues we need to talk with the Navy about.

25 And because they've proposed this removal as

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1 time critical, there is a short amount of time
2 available. And so, what I suggest is we meet with the
3 Navy on Thursday to talk about our concerns so they can
4 hear what we have to say, then we'll finalize our letter
5 so they've actually heard from us before we just trade
6 papers back and forth because we have to move this
7 process along fast.
8 MR. O'CONNELL: What site?
9 MR. RAMSEY: This is for the Area of Concern 1.
10 So, that's what's planned for Thursday.
11 And we have been, therefore, this month trying
12 to process those responses and internally deciding what
13 to do. And there is legal aspects. Other -- other
14 projects we're working on, Taylor Boulevard Bridge, the
15 Navy has given us a response to comments and draft final
16 RI report. We'll be providing comments.
17 Your RAB schedule has May 1st. The comments
18 the Navy had indicated in that last April 1st handout on
19 schedules was a suggestion, and it was, again, the
20 Navy's request, the RAB provide comments by May 1st. So
21 we took May 1st as our deliverable date. We actually
22 had an earlier date, but since the Navy had appeared to
23 have given more time, we said we can use it, we'll
24 provide those comments on this RI report.
25 We're processing some information, and the Navy

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1 has provided us an ecological risk assessment for the
2 tidal area sites that will be a component of an RI
3 report that is due in around July of this year. And so
4 we hope to get those comments out shortly to them.
5 And more significantly, on the 18th we received
6 a response to comments from the Navy on the Site 1
7 landfill. And we need to quickly -- at this point I
8 need to brief my managers on the Navy's response
9 because, as I believe you have received these response
10 to comments from the Navy, and real brief -- very
11 brief -- briefly the U.S. EPA had asked that groundwater
12 be carved out of that decision for the landfill because
13 we have concerns, and the Navy has essentially said they
14 would like to go on and finalize the no-action RoD for
15 groundwater as part of the final RoD. And that's the
16 response from the Navy at this point.
17 And we indicate in our letter we do have
18 concerns with groundwater and had made the suggestion
19 that they carve out the groundwater, and take that
20 groundwater from the action, limit the Record of
21 Decision to dealing with the landfill cap only, allow
22 more time to evaluate groundwater, hopefully collect
23 some more groundwater samples, and then decide what to
24 do a little bit more thoroughly, think things out.
25 So at this point I just want to leave it at

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1 that. What we asked for and what we didn't get from the
2 Navy I need to take this information, summarize the
3 Navy's responses to my manager. I'll be doing that
4 tomorrow morning. And hopefully within a week or two
5 we'll be able to get back to the Navy to indicate to
6 them that either we find their responses acceptable, or
7 we find them unacceptable, and we need to -- I believe
8 at this point would likely raise a dispute. And the
9 first step is an informal dispute. We need to have a
10 meeting with the Navy.
11 So, again, we have concerns with the
12 groundwater, and the Navy didn't provide any information
13 on the groundwater in the response. So I think the
14 obvious process to expedite that flow of information is
15 we need to sit down with them and have some detailed
16 discussions about what the existing data says first.
17 MR. PONTEMAYOR: Okay. Thanks, Phil.
18 MR. RAMSEY: Yeah, that's it.
19 MS. TANASESCU: I have a question. Are there
20 any serious concerns that you can see from the design of
21 the cap? There had been some concern previously, and I
22 was just wondering if you still had that.
23 MR. RAMSEY: I think we have -- we have to sit
24 down, and there is a legal aspect of the type of a
25 decision that's being made and the type of cap design

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1 that has to have a bit of a legal resolution, I believe.
2 And that's pretty clearly laid out in our letter. So,
3 it's kind of a legal/technical aspect of that remedy.
4 MS. TANASESCU: Okay. Thanks.
5 MR. PONTEMAYOR: Thanks.
6 Water board.
7 MR. MEILLIER: I don't have anything to add.
8 MR. PONTEMAYOR: Okay. DTSC, Jim.
9 MR. PINASCO: Not really anything to add.
10 MR. PONTEMAYOR: Very good, thank you.
11 And with that we are ready for the litigation
12 area five-year review presentation from Dr. Gleason.
13 MS. GLEASON: Okay. Thanks a lot for having me
14 here tonight.
15 Again, my name is Mary Gleason. And I'm an
16 ecologist by training, and I'm also a resident of
17 Concord. I've lived here about 13 years. I live not
18 too far from the inland area of the base. And I'm the
19 project manager on the five-year review for the
20 litigation area. I was also previously the project
21 manager on the monitoring program at these same sites,
22 so I've actually been working on these sites for six to
23 seven years at this point. I'm pretty familiar with
24 them.
25 And my goal tonight is really just to give you

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1 an overview of the site history, an overview of the
2 remedial action that the Navy conducted, what we've done
3 during this five-year review, and then what the Navy's
4 proposing to do for parts of the sites that there's
5 still some concerns about.

6 So I only have about a half an hour. It's
7 going to be kind of an overview, but I'm happy to take
8 questions either during the talk or at the end, whatever
9 you prefer.

10 Okay. This is the area that we're talking
11 about. This is the whole tidal area at the Weapons
12 Station. The litigation area is these green pieces
13 here. It's divided up into remedial action subsites 1,
14 2, 3, and 4. 1, 2, and 3 are here along the edge of
15 Nichols Road, if you're familiar with the area in Bay
16 Point, and then RASS 4 is this piece over here that's a
17 little bit further down east on Port Chicago Highway.
18 So, that's the area that we're talking about

19 MR. O'CONNELL: The white space, the two RASS
20 areas, that's General Chemical and . . .

21 MS. GLEASON: Yeah. There is -- actually, I
22 have a map, which is kind of small. You might -- when
23 we get into talking about this later, I have a map
24 showing all the property owners next door. And,
25 actually, I can just pass this around because I will be

1 was not really sufficient financially to cover all of
2 the costs, but some costs were recouped.

3 And, you know, the -- the contamination really
4 resulted from historic just industrial practices,
5 dumping, historic spills in the area. This area has
6 been industrial since around 1910, and there were
7 historic spills across the wetland that contaminated the
8 property. So, it was a period of decades. It's
9 historic contamination that we're talking about. Some
10 of it's been out there 50, 60, 70 years at least.

11 Yes.

12 MR. O'CONNELL: One other question. On the
13 lawsuit and the settlement agreement, as you said, there
14 is insufficient funds to carry out the remediation that
15 we now have planned in terms of the settlement
16 agreement. Does the Navy have any recourse to go back
17 and reopen that issue -- reopen the litigation to get
18 more funds?

19 MS. GLEASON: There is certainly some legal
20 issues with this site. The Navy did sign consent
21 decrees with the neighbors that spelled out the
22 responsibility, who was going to clean up what. The
23 Navy agreed to clean up their property, and the
24 neighbors agreed to stop acting as a source of
25 contamination and to clean up contaminants on their own

1 talking about the neighbors.

2 But, yeah, the neighbor that's right here,
3 General Chemical, and there was a chemical and pigment
4 company right in this space here, there is a GWF power
5 facility right here. So, it's private -- private
6 industrial lands.

7 Okay. I'll give you a little bit of the site
8 history. Let me start first by saying the Navy
9 purchased these lands in the late '70s from neighboring
10 chemical companies. They were purchased as buffer zone.
11 The Navy actually has never conducted any activities at
12 these sites.

13 I'm looking for a slide -- actually, that's
14 missing here -- that you can see on your handout.

15 It's basically 300 acres of wetland and upland
16 type habitat. There is no development. There is no
17 buildings.

18 And, as I mentioned, the Navy bought the land,
19 they subsequently found out that it was contaminated,
20 but being the new property owners they were responsible
21 for addressing the contamination.

22 The Navy did file a lawsuit against the
23 neighboring property owners, the original property
24 owners, and did receive a settlement from them that went
25 towards the cleanup that the Navy did. That settlement

1 property. And so, you know, basically the contamination
2 was divided up, and the responsibility was metted out.

3 So in terms of the Navy recouping, you know,
4 for contamination on its own property, I think that's
5 not -- that's not really known. There are some
6 issues -- ongoing issues with the neighbors that I'll
7 get to later in my talk that we kind of bring back up,
8 you know, what they're doing and what some legal issues
9 are.

10 So the contaminants of concern at this site are
11 basically metals. And there is six metals: arsenic,
12 cadmium, copper, lead, celenium, and zinc. And the
13 site's been really pretty well characterized at this
14 point. And those are really the drivers at this site.
15 There has been quite a bit of studies.

16 The sites were first identified by the Navy in
17 1983 in the initial site investigation. A remedial
18 investigation and feasibility study was conducted by the
19 Army Corps of Engineers in the late -- mid to late '80s
20 and decisions were made about what kind of cleanup
21 should be conducted at the site.

22 The Navy signed a Record of Decision in 1989,
23 completed a remedial action document that designed the
24 cleanup and made decisions about what was going to be
25 done. And then the Navy actually conducted some

1 preremediation monitoring. They did a cleanup in 1993
2 to 1996. And I'll talk a little bit more about what
3 they did.
4 And then since then there's been five years of
5 post-cleanup monitoring, and now we're at the first
6 five-year review, first post-remediation five-year
7 review. So, that's kind of the chronology of how we got
8 where we are today.
9 Okay. And just talking about the cleanup, the
10 cleanup focused on the six metals of concern and only
11 the most contaminated portion of each RASS was cleaned
12 up. The cleanup did not cover all 300 acres of the
13 site.
14 And if you want to look at this map a little
15 bit later on, you can come up and look at it, but we've
16 outlined the areas where the cleanups were conducted.
17 So looking out -- this is RASS 1 out in the wetland.
18 Out here it's a tidal marsh. Only the most eastern part
19 of RASS 1 was cleaned up. That's where the worst
20 contamination was.
21 The original source was these wastes at the
22 General Chemical facility that had spilled over this way
23 historically. So the highest contaminant levels were
24 found in this area. All of that soil was removed. It's
25 many acres.

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1 I think it's, what, John, 12 acres in the area?
2 MR. BOSCHE: I thought it was like 13.
3 MS. GLEASON: 13 acres in this area.
4 And the Navy completed a wetland
5 revegetation/restoration in that area but -- and
6 similarly in RASS 2. This is RASS 2 here. It's a
7 central area in the middle, several acres, that was the
8 worst contamination that was cleaned up.
9 This is RASS 3, this brown piece right here.
10 The cleanup was really focused on Nichols Creek, which
11 is an area that runs down through the middle of RASS 3.
12 The historic source of contaminants here was the
13 chemical and pigment company right down here on the edge
14 of the creek. They had been dumping into the creek, and
15 contaminants had flowed downstream. So, again, the
16 cleanup was focused really on the worst stuff in the
17 middle of RASS 3.
18 And then this is RASS 4 off to the east, and
19 the cleanup was focused on small pieces -- small areas
20 in RASS 4 that were the worst contaminants.
21 Yeah.
22 MR. HOWELL: Is RASS 1 the green area?
23 MS. GLEASON: Yeah.
24 MR. HOWELL: I'm just curious. That was -- the
25 source area was off-site. Was it because of spills --

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1 direct spills when the boundaries were different, or was
2 it a runoff from water going on -- off-site onto the
3 RASS 1?
4 MS. GLEASON: All right. That's a good
5 question.
6 We did a lot of research of historic
7 photographs, looking at photographs from the '50s, and
8 '60s, and '70s, and you could actually see areas where
9 spills had come across the marsh from this -- these
10 waste lagoons here. And right now there is a berm that
11 separates the two properties. That was built after this
12 contamination probably was discovered. So now there's a
13 berm that separates General Chemical from the Navy
14 property.
15 But these waste lagoons are still highly
16 contaminated, but it's for the most part contained.
17 It's not able to spill over during heavy rains or storms
18 or, you know, storm surge. So, it was definitely --
19 it's kind of -- you know, it was really industrial
20 practices at the time where people weren't really paying
21 attention to contaminants and didn't really know the
22 impacts of them. But, you know, basically it spilled
23 across the marsh.
24 The marsh is also -- it's very -- a very nice
25 marsh. It's about 200 acres. It's really high-quality

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1 wetland habitat. It's got a tidal slough that runs
2 through the middle of it. And I'll show you some
3 pictures of this.
4 And then the marsh is also bisected by these
5 mosquito ditches. If you look at these where -- the
6 dotted lines across the map, these were dug in the mid
7 '70s, ditches about 3 feet deep to help drain the marsh
8 for mosquito control.
9 So, there is a very complex hydrology there.
10 The tide comes in, it flows through these ditches and
11 spreads out over the marsh, and then the tide goes out
12 again. So you have daily water movement in the marsh.
13 You also have big rain events that can really bring
14 water down the creek. So, there is a lot of transport
15 mechanisms, rainfall, storm surge, things like that,
16 that can move the contaminants around. And so the
17 contaminants did get spread throughout the site quite a
18 bit.
19 But, as I said, the cleanup focused on the six
20 metals of concern, and only part of each site was
21 cleaned up. And the major reason for that is really the
22 environmental trade-off between -- especially in the
23 wetlands. The remedy itself is very destructive.
24 Really the only way to get rid of these contaminants is
25 go out there and dig them up, remove that contaminated

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1 sediment, and in the course of doing that you destroy
2 that wetland.
3 And so the decision was made in the late '80s
4 that it was better to just do the worst of it, take part
5 of that -- that area that was contaminated, and to leave
6 the rest in place to avoid damaging habitat. And the
7 concern is really for several species of concern at the
8 site that -- you know, like the field marsh harvest
9 mouse. I'll show you pictures of that. People were
10 concerned about the habitat loss and the destruction.
11 So in this kind of a situation in a wetland you
12 really have to weigh the environmental trade-offs, and
13 that's something that we talk about more later when we
14 talk about what the Navy's plans are.
15 And the cleanup criteria that were used were
16 the best that were available at the time. They're
17 hazardous waste criteria. It's really the
18 concentrations that would characterize something as
19 hazardous waste and require it to be taken to a
20 hazardous waste landfill. So -- and the different
21 criteria were used in different RASSES for different
22 reasons. It's a little bit complicated. I can't just
23 give you one set of numbers.
24 But in the five-year review we kind of discuss
25 this and talk about the criteria that we used and how
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1 appropriate they were. And then because the Navy had
2 decided to leave some contamination in place to avoid
3 habitat destruction and to do what's called passive
4 remediation, basically to see if nature could heal
5 itself and if the contaminants would remain in place and
6 not present a problem, but they were required to do
7 monitoring and to really follow that and to make sure
8 that those contaminants weren't migrating and make sure
9 they weren't causing either human health or ecological
10 risk.
11 This is a picture of the tidal marsh. As I
12 said, it's a really beautiful marsh. It's very, very
13 diverse in terms of the plant species, the vegetation.
14 It's one of the more diverse marshes around this area in
15 Suisun Bay, and it's pretty large and relatively intact.
16 There hasn't been development in this area. The tidal
17 sloughs are still natural. They're not gated or diked.
18 So the marsh is still actually in pretty good condition
19 in terms of hydrology and biodiversity.
20 This photo is of the mosquito control ditches.
21 It's a little hard to see, but basically they're very
22 straight parallel ditches that just bisect the site, and
23 there is dozens of them out there. And they act to
24 really allow the water when the tide comes in to spread
25 out over the marsh surface and then to drain very
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1 efficiently when the tide goes out. So you don't get a
2 lot of standing water on the marsh that causes
3 mosquitoes to, you know, have breeding places.
4 So the ditches were put in around the -- 1976 I
5 think was the last time they were maintained. They were
6 put in in the '50s and then maintained up through 1976.
7 They're not maintained anymore. They haven't
8 been for 20 years. They're slowly filling in. That's
9 kind of the natural process of accretion in the marsh.
10 The sediment's coming in and settling out, and they're
11 slowly filling in. They don't have much habitat value.
12 Animals don't tend to like them. There's not much alive
13 in them. They're sort of a non-natural feature.
14 They're a man-made feature of the marsh.
15 The marsh also, as I said, has got tidal
16 sloughs going through it. These are pretty wide and
17 pretty deep. 15, 20 feet across in some places, six or
18 seven feet of water. You can take a canoe or a small
19 boat up in them. Really nice habitat. It's a valuable
20 habitat in this area. There's not that many sloughs
21 that are not diked or have tidal gates on them. So,
22 it's a natural slough with full tidal action. It's got
23 otters, fish, all kinds of birds that use these areas.
24 So, they're pretty good quality habitat.
25 And then this is the upland habitat. This is
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1 in I think RASS 3. And it's just pretty much disturbed
2 grasslands. It's got a lot of thistles and weeds,
3 not -- not real high habitat value. There are coyotes
4 and fox and various birds and small mammals out there.
5 The other important thing to remember about
6 this site is that it's got several special-status
7 species. This is one. This is a plant called soft
8 birds-beak. It's on the federal endangered list. It's
9 just a small marsh plant. It's very abundant at this
10 site. Actually, this site has some of the largest
11 population of this plant around. Kind of adds to the
12 habitat value of this site.
13 We've also got black rails, which are small
14 sort of secretive marsh birds. We've got a variety of
15 other special-status birds that visit the site on a
16 migratory basis.
17 Probably one of its more well-known inhabitants
18 is the salt marsh harvest mouse. This is a federally
19 endangered animal. Something that we all, you know, are
20 going to take extra care to try to protect. There's
21 very small herbivorous mammals that live in the pickle
22 weed in the marsh, eat the pickle weed, spends its whole
23 time out in the marsh.
24 MR. HOWELL: It prefers pickle weed? It likes
25 pickle weed?
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1 MS. GLEASON: Yeah, likes pickle weed.
 2 MR. HOWELL: Wow.
 3 MS. GLEASON: So the point of the five-year
 4 review which is where we're at now is really to look at
 5 the decisions that were made in the past, the decisions
 6 about the remedy that was selected, about the monitoring
 7 that was done, and really to evaluate whether that
 8 remedy was and still is protective of human health and
 9 the environment.
 10 And specifically these are the requirements
 11 from the EPA's guidance on how you do a five-year
 12 review. You have to determine whether the remedy is
 13 functioning as intended in the decision document, you
 14 have to determine whether the assumptions made at the
 15 time the decision was made are still valid, would we
 16 make the same decision today were those assumptions
 17 still valid, and then also determine if there is any new
 18 information that, you know, we've learned in the last
 19 five years that calls into question the decision that
 20 was made. You know, was that remedy protective, or have
 21 we learned something else recently that leads us to
 22 believe it was not protective. So, that's what we're
 23 required to do during the five-year review.
 24 MR. HOWELL: That's Navy policy?
 25 MS. GLEASON: That's EPA five-year review

1 because the site was considered, you know, not
 2 inhabited. There's not people out there. It was just
 3 bought as buffer zone, so people weren't exposed.
 4 But because of its habitat value the ecological
 5 issues were really the drivers for why the cleanup was
 6 done. So, it's appropriate we're talking about this
 7 site on Earth Day, because I think it's very much an
 8 ecologically driven site.
 9 And then we conducted a baseline ecological
 10 risk assessment. A qualitative or screening level risk
 11 assessment had been done in 1995, actually completed in
 12 '96, that indicated there might be still some ecological
 13 risk. So during the five-year risk review it was
 14 decided to go ahead and do a baseline ecological risk
 15 assessment at the same time.
 16 And then we also conducted a site inspection
 17 tour. Quite a few members of the regulatory and trustee
 18 agencies and the Navy, various people that are familiar
 19 with the site, went out and really inspected it to take
 20 a look at how things were looking. So I'm going to talk
 21 briefly about each of those things.
 22 In terms of the monitoring program, the Navy
 23 had set up a monitoring protocol, a monitoring plan that
 24 was required in the RoD. And the Navy completed all of
 25 the monitoring that was required in the RoD. They

1 policy.
 2 It just came out when, Phillip? A few months
 3 ago?
 4 Not that long ago. I think it was late 2001.
 5 It's new guidance from the EPA.
 6 MR. RAMSEY: Well, you're right. There is new
 7 guidance. I think we've been using this probably --
 8 there was other stuff out there, but there was new
 9 guidance, though, right.
 10 MS. GLEASON: So, anyway, the major components
 11 of the review were we've looked at all of the monitoring
 12 data that we had gathered over the five years of the
 13 monitoring program. We also were specifically looking
 14 at existing sources of contaminants both on-site and
 15 off-site. And by that I mean that because contaminants
 16 had been left in place at the site they could still act
 17 as existing on-site sources. And we were worried about
 18 whether that contamination was spreading across the site
 19 out to the bay, you know, in various places around the
 20 site.
 21 And we also conducted a screening level human
 22 health risk assessment. And this site is a little bit
 23 unique in that one hadn't been done -- the whole focus
 24 of the remedy and the RoD was really based on ecological
 25 health as opposed to human health, and that was really

1 followed through basically on everything that they were
 2 supposed to do.
 3 The monitoring program met its objectives, but
 4 the objectives were quite general. The monitoring
 5 program was designed I think in the late '80s, early
 6 '90s, and we've just learned a lot about monitoring
 7 since then. There is a lot more guidance on data
 8 quality objectives and things like that.
 9 And so, you know, in terms of reviewing --
 10 looking back at the monitoring program, the general
 11 consensus was that the objectives were probably a little
 12 bit too general and could have been more focused. And
 13 so, that's something we've learned about the monitoring.
 14 Yes.
 15 MR. O'CONNELL: Do I recall right that the
 16 monitoring -- there had been no monitoring since 1996?
 17 MS. GLEASON: No. The monitoring program -- if
 18 you go back to the chronology on the handout, we did
 19 preremediation monitoring in 1991, and then the
 20 post-remediation monitoring was from 1995 to 1999 or
 21 2000.
 22 1999?
 23 MR. RAMSEY: Somewhere right around there.
 24 MS. GLEASON: Right before we started the
 25 five-year review. When we finished the five years of

1 monitoring, we started the five-year review.
2 MR. O'CONNELL: Okay.
3 MS. GLEASON: And then the results of the
4 monitoring program were really used to answer all of
5 these questions that we had to answer. You know, has
6 there been migration of contaminants, is there
7 ecological or human health risk. So I'm going to talk
8 about the information we learned in the context of
9 those -- those questions, those specific questions.
10 This map over here, you might want to look at
11 at some point, does show all of the monitoring
12 locations. And I don't know if you can see the dots
13 from back there, but you can see that the site was
14 pretty intensively sampled.
15 And, you know, you should also realize that the
16 site's fairly complex because of this tidal action, all
17 the water potentially moving around on the site. We've
18 got different habitats, we've got tidal sloughs, we've
19 got these mosquito ditches, we've got the marsh surface,
20 we've got this creek that runs through RASS 3, we've got
21 upland soils.
22 So all of those areas were really evaluated
23 differently because they have different transport
24 pathways and different issues of concern. So that the
25 monitoring program itself was pretty -- pretty intensive
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1 and pretty complex.
2 I'm going to start by talking about what the
3 monitoring program showed us in terms of the success of
4 the cleanup and the restoration effort.
5 In terms of the areas, the 19 acres that were
6 cleaned up and restored, the monitoring program showed
7 us pretty clearly that those areas are not getting
8 recontaminated. That was one of the concerns about
9 leaving contaminants in place is that the areas that you
10 clean up will then become dirty again because there's
11 still contaminants in the area. But that has not
12 happened. So those areas also were very successfully
13 revegetated and restored to the type of habitat that --
14 that we were aiming for -- the Navy was aiming for.
15 In the wetlands the pickle weed dominant marsh
16 was restored. We exceeded the success criteria that had
17 been set up. We have salt marsh harvest mice and
18 that -- that plant I showed you a picture of, the soft
19 birds-beak, are recolonizing.
20 This area of wetland that was restored, it's
21 pretty much a hundred percent cover of native plants,
22 wetland plants at this point. Some of the upland areas
23 had a few more problems in terms of weedy species coming
24 up, and that's something that happens quite often in
25 restoration efforts in upland areas, you get the
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1 thistles and the grasses that come in. So, there is not
2 as high a native cover as one might like, but it's --
3 you know, it's pretty close to the success criteria.
4 So in terms of the -- part of the remedy that
5 was an active removal and restoration, that's viewed by
6 the Navy, and I think also the agencies and most people,
7 as -- as very successful.
8 This is just one graph. I don't want to show
9 you a lot of data tonight, but this is just a graph
10 showing the number of black rails. This is a State
11 threatened bird. It's a small secretive marsh bird.
12 This is looking at the numbers in the marsh.
13 Preremediation is this first column, and then during
14 year 1, 2, 3, 4, and 5 years after our remediation. So
15 signs for that animal are looking good. The populations
16 seem to be doing just fine and not increasing.
17 MR. McLEOD: What are the raw numbers?
18 MS. GLEASON: This is --
19 The blue is number of rails, the pink is
20 density of rails. So in terms of raw numbers of rails
21 is that on -- you know, on four or five permanent
22 transects across the marsh that are sampled every year,
23 the same places, it goes from 20 here up to 120.
24 This is actually one of largest populations of
25 black rails around in the Suisun Bay area.
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1 Another thing that I told you we were going to
2 look into quite a bit is this concern about migration of
3 contaminants on the site. And so this -- that means in
4 the litigation area contaminants that were there were
5 left in place, based on the decision of the RoD, are
6 they moving around. And the concern is really are they
7 moving and recontaminating the areas that were cleaned
8 up. We showed that they're not. But are they moving
9 out to Suisun Bay. When the tide goes out is it taking
10 a lot of contaminants, are they moving, you know, around
11 the marsh.
12 And this was evaluated through a whole host of
13 studies that were done, and it would, you know, take
14 quite awhile to talk about them. We looked at tidal
15 water quality, we looked at the concentrations of metals
16 on incoming and outgoing tides, we looked at how much
17 sediment is moving around in the marsh laterally, we
18 also looked at vertical accretion of sediment to try to
19 figure out if the contaminants were being buried by
20 cleaner sediments or if they're still right up there at
21 the surface of the marsh.
22 So, there were a whole host of studies that
23 were done. And the five-year review report goes into a
24 pretty detailed review of them.
25 The overall conclusions in terms of on-site
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1 contaminants is that some of the remaining contaminants
2 in the tidal sloughs and ditches, those mosquito ditches
3 in the southern part of RASS 1 -- so we're talking the
4 mosquito ditches on this side, the southeastern corner
5 of RASS 1, there's still a pretty high level of
6 contaminants, as there are in this side slough, a tidal
7 slough that goes off to the west here.

8 Those two areas are areas where there is still
9 pretty high levels of contaminants and it really seemed
10 like they might be moving. And by moving what we've
11 really come to conclude is that they're kind of sloshing
12 back and forth. We're not seeing a pattern that the
13 contaminants are migrating out towards the bay. They're
14 very much still concentrated in these southern parts of
15 RASS 1. But they are sloshing around, they're not
16 getting buried, they're not, you know, totally staying
17 non-moving. So, that was of concern.

18 Secondly, we also saw areas of pretty
19 extensive soil erosion along Nichols Creek in RASS 3.
20 And that's this area here.

21 Remember, as I said, Nichols Creek runs down
22 through the middle of RASS 3. There is some areas,
23 especially along where the railroad tracks cross the
24 creek, where there is pretty extensive soil erosion.

25 And, in fact, this isn't on the Navy's

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1 property. It's on the railroad right-of-way, so it's --
2 you know, there is a little bit of a neighbor problem
3 here. But there is some pretty extensive soil erosion.
4 And the concern is that some contaminants could be
5 carried down Nichols Creek down towards -- there is a
6 small wetland at the bottom of the creek here, and then
7 the creek actually goes under a culvert, and it goes out
8 into the wetland; okay? So this historic pathway of
9 contaminants could still be operating. So, there is
10 some areas in RASS 3 that are of concern.

11 We also looked at off-site sources.

12 Marcus, as you raised the issue about what's
13 going on with the neighbors, we decided to look into
14 whether they had done cleanups at the neighboring
15 properties and whether they might still be acting as
16 ongoing sources. And this was because, you know, just
17 general concern that there are high levels of
18 contaminants at some of the neighboring properties, and
19 that there is some investigations at those properties.
20 And it was really in the Navy's interest to try to
21 figure out if those sources had been blocked and stopped
22 or not.

23 So we did a file review. We went through EPA,
24 DTSC, and the water board's files to look at what kinds
25 of investigations are going on at the neighbor's

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1 property. We also looked at our sampling data to figure
2 out if we thought areas next to the property owners next
3 door were, you know, possibly getting recontaminated.

4 And I'll show you a few pictures, but we
5 definitely do have some ongoing concerns about the
6 neighbors as potential sources, ongoing sources. I'll
7 talk a little bit more about it later. I'll show you
8 some pictures towards the end.

9 We also -- we conducted a site inspection 4 and
10 took some photographs of things that were just, you
11 know, of concern. So I just want to kind of leave this
12 for now.

13 You can ask a question, sir.

14 MR. HOWELL: Yeah, if it's appropriate at this
15 time, on the photograph it was a former hydrochloric
16 acid. I'm just curious. Is there any way to sort of
17 excavate, or has it been excavated? And does it break
18 down, in fact? That's pretty nasty stuff.

19 MS. GLEASON: Yeah, the -- there is some waste
20 lagoons still -- actually, this property here, as you
21 can see by the map, there's quite a few different
22 property owners here. There is General Chemical, there
23 is Honeywell, Inc., there is several property owners.

24 These waste ponds, waste lagoons have been in
25 operation since the teens or '20s in terms of, you know,

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1 really what we've been able to drudge up from the
2 records. They do have a very significant low pH problem
3 here. They have been producing and dealing with acids
4 for quite some time.

5 So one of our concerns is -- really is low pH
6 because that can actually mobilize metals and make them,
7 you know, more toxic and more available. We're still
8 looking into what kinds of chemicals exactly they dealt
9 with at these properties.

10 MR. HOWELL: I was just curious because
11 hydrochloric acid, that will dissolve rock.

12 MS. GLEASON: Yeah. I don't know exactly, you
13 know, what concentrations they have or what they were
14 doing. I know they have a lot of sulphuric acid. I
15 haven't seen so much hydrochloric acid in terms of the
16 records they've seen in terms of concentrations that
17 they've measured. But I'll get back to that because
18 one -- one of our future planned activities is to do
19 more in-depth digging in the files to try to figure out
20 what's -- what's going on at some of these properties.

21 MR. O'CONNELL: What are the figures? What are
22 the numbers that you came across? There is a pH of 2 in
23 some of these places?

24 MS. GLEASON: (Nods head.)

25 MR. O'CONNELL: Am I right, is -- is that pH

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1 high enough that if you put your finger in, it will take
 2 the skin right off it pretty lickety-split?
 3 MS. GLEASON: I've never tried it. I don't
 4 know. But it's pretty low.
 5 Basically when the Navy got their property and
 6 started dealing with this, one of the first actions was
 7 to put lime across the site to try to neutralize some of
 8 the pH issues. The neighbors, General Chemical in
 9 particular, low pH is one of their major contaminants of
 10 concern. So they are dealing with it. They're
 11 currently conducting some investigations. They're
 12 currently conducting human health ecological risk
 13 assessments on their contaminants.
 14 MR. McLEOD: Have you had access to the
 15 historic records of those companies?
 16 MS. GLEASON: No. We've pretty much only at
 17 this point done a cursory review of the files at EPA or
 18 DTSC. And that means those are files about ongoing
 19 investigations or investigations conducted in the last
 20 ten years or so.
 21 MR. McLEOD: Wouldn't that be an easy way to
 22 find out what they did?
 23 MS. GLEASON: Yeah. I mean, some of those
 24 investigations have done that kind of historical
 25 research. We haven't seen the primary stuff, but we've

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1 looked at, you know, the synopsis of what they've done,
 2 what they've produced. There's -- you know, I think
 3 there is definitely more that could be learned.
 4 Yeah.
 5 MS. WILLIAMS: Mary Lou Williams.
 6 What sort of plant or animal life can be
 7 supported at pH 2?
 8 MS. GLEASON: None really. There is nothing in
 9 these alum ponds. If you -- if you go out and you stand
 10 on this berm that separates the Navy property from the
 11 General Chemical property, these waste lagoons are just
 12 pure mud. You know, there is nothing living in them.
 13 I have seen migratory shore birds and herrings
 14 walking around out there, so, I mean, their feet aren't
 15 getting dissolved, I hope. But, you know, there is
 16 basically nothing out here whereas on this side of the
 17 berm there is, you know, healthy pickle weed with one
 18 exception, which I'll talk about later.
 19 But, you know, I don't want to dwell on the
 20 neighbors. I mean, we're here to talk about the Navy's
 21 property. This is -- this is a concern of the Navy's.
 22 It's something they're going to be looking into. It
 23 definitely potentially impacts the site. It's not
 24 something that should be ignored, I don't think.
 25 Then just kind of moving on, because we don't

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1 have a lot of time tonight, I know. Just talking about
 2 the screening level human health risk assessment, this
 3 was done basically in a two-tier process. The first
 4 process was a conservative screen. I know some of you
 5 perhaps attended the training sessions this past
 6 Saturday so, you know, hopefully you feel a little bit
 7 more familiar with risk assessment. It can be sort of a
 8 mystery sometimes.
 9 But these risk assessments both at the
 10 screening level and human health were designed in
 11 conjunction with EPA and the other agencies. We all sat
 12 down and talked about what kind of receptors we were
 13 going to look at, how we were going to do the
 14 evaluation.
 15 And for the human health risk assessment we did
 16 a two-tiered screen. The first was pretty conservative
 17 using EPA's remediation goals for residential and
 18 industrial scenarios. Now, obviously this wetland is
 19 not a residential or industrial scenario. This was a
 20 conservative first screen that's just required to know
 21 if you would ever have to be concerned about future land
 22 use. You know, if in some future scenario you decided
 23 to pave over this wetland and put up houses, you want to
 24 know whether you had some risk, human health risk.
 25 Okay.

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1 That's not a realistic scenario. But
 2 conceivably at some point in the future it's possible.
 3 But in a wetland it's not likely. Might be a little
 4 more likely in the upland habitat. But really the risk
 5 assessment -- the focus assessment is the one where
 6 you're really trying to get an understanding of current
 7 conditions. Are people out there now, real people that
 8 might be out at the site exposed to contaminants that
 9 could be a risk.
 10 And the receptor that was selected, the
 11 representative receptor, was a mosquito abatement
 12 worker. And that's because we had talked and seen the
 13 mosquito abatement workers out there and had talked with
 14 Contra Costa Mosquito Vector Abatement District and
 15 decided that this person who comes out to the site about
 16 once a month and spends a day out there, they do
 17 sampling for mosquito, they walk around in the marsh,
 18 they ride an all-terrain vehicle actually across parts
 19 of the marsh to get to their sampling locations,
 20 authorized entry, but they are out there, you know,
 21 exposed to soil. And so we decided to use that person
 22 as our representative.
 23 Somebody like myself who's an environmental
 24 worker out there doing field work, I mean that's
 25 potentially a similar exposure, but -- you know.

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1 So we talked with them. We found out how long
2 they spent out there, what they do out there, how dirty
3 they get, what they wear, do they eat their lunch out
4 there. We went through all of the exposure scenarios
5 and tried to figure out what this person might be
6 exposed to.

7 And the conclusion from that, that the current
8 environmental conditions do not pose a risk at any of
9 the four RASSES. In terms of the occasional exposure of
10 somebody like a mosquito abatement worker who's out at
11 the site on a casual basis exposed to soil, you know,
12 but not living out there full time. Conversely, if land
13 use were to change to residential or industrial
14 exposure, there would be some significant risk that
15 would have to be addressed.

16 So in terms of the screening, it failed the
17 screen in terms of being safe for residential or
18 industrial exposure. Okay. In some areas, not all of
19 the RASSES, but certain parts of each RASS.

20 Yeah.

21 MR. MCLEOD: I'm assuming that exposure has to
22 be direct; it can't be waterborne or airborne. Is that
23 correct?

24 MS. GLEASON: Actually, for the mosquito
25 abatement worker we did look at water and soil exposure,

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1 just because eco concerns are really what's -- what's
2 going to probably be the driver at this site, talk about
3 it a little bit more. We did field surveys. We've done
4 pretty complete characterization of all the plants,
5 birds, mammals at the site, fish and invertebrates.
6 We've really done a lot of sampling. We know what's out
7 there.

8 We compared site chemistry to toxicity
9 benchmarks, just looking at how concentrations compare
10 to concentrations that we know might cause some adverse
11 impacts. We did direct toxicity tests where we
12 collected sediment soil from the site, exposed animals
13 in the laboratory, and we looked at basically the
14 bioaccumulation. We collected things like pickle weed,
15 mice, invertebrates, clams from the site, looked in
16 their tissues to see how much was accumulating.

17 And then we did food-chain modeling, which I'll
18 talk about a little bit more, but a way to evaluate
19 whether contaminants are moving up through the food
20 chain and getting into the birds and mammals that might
21 be feeding at the site.

22 In the terms of the toxicity testing, we used
23 standard laboratory toxicity tests. This just shows a
24 sample being collected, an intact sediment core being
25 sent to the lab. We tested amphipods, which are

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1 not inhalation because out in the marsh, you know, it's
2 damp sediment soils, there is not a lot of inhalation
3 happening.

4 MR. MCLEOD: I was thinking all the houses
5 across the street, they're not at any risk because
6 they're not directly exposed; is that correct?

7 MS. GLEASON: Yeah. Yeah.

8 Okay. In terms of the baseline risk
9 assessment, you know, we went through, again, a process
10 with the agencies to plan this all out. We developed a
11 site conceptual model that spelled out what kinds of
12 plants and animals we're concerned about, what kind of
13 exposure parameters, exposure routes, and looked at a
14 variety.

15 There were about a dozen assessment endpoints
16 with a variety of wetland plants, aquatic invertebrates,
17 and fish, and selected birds and mammals. We picked
18 things like the salt marsh harvest mouse, and the black
19 rail, coyote, fox, various things that we knew were out
20 at the site. And then we used a weight of evidence
21 process to evaluate the results. And hopefully from the
22 Saturday training you have a sense of what that means in
23 really pulling together all those lines of evidence and
24 figuring out if you have a problem or not.

25 Some of the tools that we used -- and again,

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1 shrimp-like, crustacean and fish, and we did see
2 actually not very much toxicity, not as much as you
3 might expect given some of the levels at the site. But
4 we did see a few samples in the southern portion of RASS
5 1. So in these mosquito ditches in the southeastern
6 part of RASS 1 and the tidal slough on the western side
7 of RASS 1.

8 Not real high adverse effects, like maybe 70
9 percent survival instead of 90 percent that you might
10 get in a lab control. Not -- you know, we're not
11 killing everything out there in these samples. It was
12 definitely some toxicity, but not a lot in the samples.

13 In terms of bioaccumulation I put that we
14 collected a variety of plants and animals. We did not
15 see very much bioaccumulation. A little bit in some
16 clams, again from this side arm of the slough in RASS 1.
17 A little bit of bioaccumulation of metals, not a lot.

18 We then used that tissue data in food-chain
19 modeling. And hopefully you're all a little bit
20 familiar with that from your training on Saturday. But
21 basically just taking the concentrations in soil, the
22 concentrations in prey, and modeling up to an animal
23 that might be feeding at the site.

24 So, for example, for a salt marsh harvest
25 mouse, we would take the concentrations we saw in the

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1 pickle weed, concentrations in marsh surface soils, add
2 those up and figure out how much of it a mouse might be
3 eating on a daily basis in terms of contaminants and
4 compare that to a value that we know causes toxicity.
5 Yeah.
6 MR. GRIFFITH: Can you further define "a little
7 bit" for us? I mean, we've talked about
8 concentrations --
9 MS. GLEASON: Right.
10 MR. GRIFFITH: -- in the past. What types of
11 concentrations relative to standards or the EPA you
12 talked about, any examples?
13 MS. GLEASON: In soil or tissue or water?
14 MR. GRIFFITH: Yeah, you say you found "a
15 little bit." Can you define that?
16 MS. GLEASON: Yeah. It's because we don't have
17 a lot of time to talk about the data. I would certainly
18 be happy to talk about it. I don't have it all in front
19 of me.
20 But in terms -- in terms of the sediment
21 concentration, for example, we have quite a few
22 locations in that southern part of RASS 1 that are more
23 than four times a toxicity benchmark like an ERM, for
24 example, effects range median. So we do have locations
25 that have high sediment concentrations. We have seen
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1 concentrations of copper and some other metals in
2 surface water that are between like four and ten times
3 the ambient water quality criteria in those isolated
4 ditches, mosquito ditches in that southern part of
5 RASS 1. So we do have some concentrations that are up
6 there.
7 We didn't, however, see a lot of
8 bioaccumulation we do occasionally see. Bioaccumulation
9 is measured -- basically you look at the amount in the
10 tissue and the amount in soil, and you compare those.
11 And, generally, you know, you'd like the amount in your
12 tissues to be much less than in the soil. Sometimes
13 it's more. We did occasionally have a few samples that
14 were more than in the soil showing that it was
15 accumulating.
16 There is a lot of data from this site. It's
17 hard to kind of just get your hands around it. And I
18 realize this -- this talk is kind of general just
19 because I'm trying to get through sort of what we've
20 done.
21 But does that help a little bit?
22 MR. GRIFFITH: Yeah, I'm just wondering how --
23 if it was above standards or not, EPA standards. It
24 doesn't sound like it was much -- very high levels.
25 MS. GLEASON: Yeah. And it really depends on
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1 where you are at the site too. I can show you -- I'll
2 put up -- I didn't want to do a lot of data, but I'm
3 happy to do some.
4 This is a slide that shows concentrations of
5 copper in soil; okay. And on the graph -- this is just
6 the legend. This red line would be the standard or the
7 benchmark. And so if you're above that, you're above
8 the benchmark; if you're below it, you're below.
9 And you can see across the site, here's the red
10 line, way below it. This is our upland reference area,
11 and you would expect it to be pretty clean.
12 This is our marsh reference area out here.
13 This red line is way up there. We're below it.
14 This area we're below it. Here's the red line,
15 below it.
16 But here in these ditches in this side of
17 RASS 1, if you look at this graph, here's the red line.
18 There definitely are some concentrations. And these are
19 mean concentrations for that area. So, it really
20 varies. It depends on where you are at the site.
21 MR. BOSCHE: Can you just tell them what the
22 horizontal -- the X axis is?
23 MS. GLEASON: Yeah. These are just five -- the
24 five years of monitoring data. Sorry. This is the
25 concentration. So, you know, it really depends on what
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1 part of the site you're talking about. You can't
2 generalize.
3 I mean, you know, the northern part of RASS 1
4 is relatively clean. These southern -- this southern
5 corner is not relatively clean. It does have locations
6 above benchmarks consistently.
7 MR. GRIFFITH: So the area sits here over that
8 five years, so that spike, you don't know if that's just
9 the contaminants doing some type of migration, or if
10 they're actually disintegrating over time?
11 MS. GLEASON: Yeah. This kind of data is
12 pretty variable, and especially because you're taking
13 different bits of sediment each year. It's not the
14 same -- it's not the same bit of sediment sent to the
15 lab last year. So, there is just a lot of
16 heterogenating in the sediment when you have
17 contaminants.
18 MR. McLEOD: Are they done at the same sites
19 each year?
20 MS. GLEASON: Yeah, it depends. I mean, the
21 sample was designed -- in the ditches it was pretty
22 exact in the same spot. Over the marsh surface we did a
23 random design. So, it was within a grid, but it was
24 a -- just random location. So -- and I'm -- you know,
25 I'm happy to talk with you more about specific
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1 questions, and we can look at the data. I have a bunch
2 of data tables. We can really get into it, if you want.
3 Just to kind of wrap up the eco step. For the
4 food-chain modeling we did have some risk, meaning some
5 hazard quotients greater than one, for the black rail
6 and the salt marsh harvest mouse.
7 Again, this was in -- for the black rail it was
8 kind of along these mosquito ditches. In RASS 1 the
9 same area along this side slough in RASS 1. In the same
10 area that I keep bringing up. The salt marsh harvest
11 mouse was just a few locations on the marsh surface not
12 in the four locations in that same southeastern corner.
13 But for all the other animals and plants that we modeled
14 or that we looked at we didn't see that kind of risk.
15 So the whole point in the baseline is really to
16 figure out, you know, where to focus your area, you
17 know, where there might be some risk.
18 And so this is just the overall conclusion of
19 the eco risk assessment. Little or no risk to wetland
20 or upland plants, some unacceptable risk to aquatic
21 invertebrates and fish from the contaminated sediments
22 in those southern sloughs and ditches. Similarly, some
23 risk to the rails and the mouse in those same areas.
24 So, there is some ecological risk in these areas where
25 contaminants were left in place.

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1 Okay. Just moving on to the site inspection
2 tour, again, this was a tour with the agencies. We did
3 look specifically at the areas that were cleaned up,
4 looking at the success of those restoration efforts. I
5 already talked about that quite a bit.
6 We did also identify some areas of concern.
7 The chemical and pigment company was identified as a
8 potential source. I'll show you a photograph of that in
9 a minute.
10 The soil erosion along Nichols Creek, I've
11 already talked about that a little bit. We took some
12 photographs and really identified which areas were of
13 concern.
14 While we were out at the site, we happened to
15 observe a spill of white powder from a parked railcar on
16 a side spur leading into General Chemical. I'll show
17 you some photographs of that. We did some follow-up
18 work to look into that a little bit more.
19 We did notice an area of distressed vegetation
20 in RASS 1 along the edge of the berm with General
21 Chemical. This is an area where pickle weed had been
22 planted. The area had been cleaned up. It's part of
23 the remediated area. So this area that was cleaned up
24 in this corner here, you know, a year and a half ago
25 there was healthy pickle weed, and now there is dead and

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1 distressed vegetation in that area. That was of
2 concern.
3 And then we noticed some unusual ashy-like
4 soils in RASS 4, and also some evidence of trespassers.
5 There was a gate that the lock had been broken open in
6 RASS 4, and there was evidence that people had been --
7 had been in RASS 4.
8 So those were kind of the major things that we
9 observed. I'm going to show you just a few photographs.
10 Those were the major bad things, I should say.
11 This is the chemical and pigment company. It's
12 bankrupt. Abandoned facility at this point. It's I
13 think in the hands of the State Department of Toxic
14 Substance Control. They made pigments and paints. They
15 were the source of some of the original contamination
16 metals.
17 This is an area that's right -- this is the
18 chemical pigment company here on Nichols Creek, comes
19 down from the Los Medanos Hills, runs right past
20 chemical pigment and then goes into RASS 3. This is a
21 view just right at that corner. So we're standing right
22 next to Nichols Creek looking into the facility.
23 A couple of things. There is evidence that
24 there is runoff. There is actually a drainage pipe
25 here, and some evidence of kind of sediment running off,

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1 evidence of standing water in this area.
2 This is a site that has very high levels of
3 metals in its groundwater. Extremely high, actually.
4 And by that I mean, one, a couple percent of zinc in the
5 groundwater. So really, really high levels.
6 They also have a pile of contaminated soil,
7 it's I think about 10,000 cubic yards, that was covered
8 up with tarps. It was actually dug out of a surface
9 impoundment in this area I think in '96 or so.
10 MR. RIVERA: I'm not sure when.
11 MR. PINASCO: Earlier than that, I believe.
12 MS. GLEASON: '95, '94. Quite a few years ago.
13 It was supposed to have been taken away to a hazardous
14 waste landfill area. It was left there, covered with
15 tarps. The tarps are now torn, it's exposed to the
16 elements, so -- and it's highly contaminated soil, you
17 know, from what we've seen in the file review.
18 So, you know, it's basically an abandoned site.
19 The State is trying to deal with it. But there is
20 definitely some concern that some of these contaminants
21 could be getting into Nichols Creek, going down the
22 creek into RASS 3, and then into RASS 1.
23 This is the railcar spill that we observed.
24 Laurent from the water board was kind enough to take a
25 sample of that and analyzed it. It turns out it's about

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1 13 percent aluminum, and it was -- it had zinc about --
 2 I can't remember -- 141 MPM of zinc and a little bit of
 3 beryllium.
 4 It -- the water board wrote a letter and made a
 5 complaint to General Chemical. There has been some
 6 ongoing spills since then. We've been out and looked,
 7 and there is more railcar spills, the same white
 8 material.
 9 At the litigation area we also found pretty
 10 high levels of aluminum in the surface water. We had
 11 kind of wondered where it had come from because it
 12 wasn't the original contaminants of concern, but I think
 13 that's probably the answer.
 14 And just, finally, we saw an area of distressed
 15 vegetation that I mentioned along the edge of the berm
 16 that separates the Navy property from General Chemical.
 17 It looks odd. It doesn't look like the normal ponding
 18 of water and dying vegetation you sometimes get in a
 19 marsh. It's definitely a little strange. And because
 20 it's right next to those alum ponds that are right on
 21 the other side of the berm, there is some concern that
 22 it could be contamination migrating again from the
 23 neighbors. But, again, I don't --
 24 MR. HOWELL: Through a groundwater pathway or
 25 underneath, through the ground?

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1 MS. GLEASON: Probably that would be the most
 2 likely.
 3 And, you know, I don't want to dwell on the
 4 neighbors. I think, you know, that it's fair to say
 5 that the Navy is very concerned about it. You know, I'm
 6 concerned about it. Just having worked at the site for
 7 years and, you know, it's a favorite site of mine, and
 8 I -- I, you know, care about that wetland a lot. I'm
 9 not happy to see those kinds of things either. But
 10 that's a separate issue from really the Navy issues that
 11 we're here to talk about today. So I'm going to kind of
 12 leave that on the side and talk more about the Navy's
 13 obligations and the Navy's conclusion about whether the
 14 remedy is or isn't protective and what they're going to
 15 do about it.
 16 In terms of the remedy being protective, we --
 17 so we had to sort of define this by RASS. And by
 18 "remedy," again, we mean the active remedy that they
 19 did, the removal and the cleanup, but also the decision
 20 to leave contaminants in place and just do monitoring.
 21 And so in terms of RASS 1 the conclusion is the
 22 remedy is protective of human health given the current
 23 land use situation. There is some indication of
 24 ecological risk and some concerns about migration that
 25 make the conclusion not protective.

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1 In terms of the environmental, there are still
 2 some concerns about off-site sources too. So, that's
 3 kind of the problem we're dealing with in the -- terms
 4 of the lack of protectiveness of the remedy being
 5 leaving contaminants in place at levels that might not
 6 be protective. It might be moving around a little bit
 7 at the site.
 8 RASS 2, we didn't really see anything that
 9 raised any concerns about protectiveness. It seemed
 10 like the remedy at RASS 2 was protective of human health
 11 and the environment. That levels of contaminants that
 12 are remaining are not of ecological or human health
 13 concern.
 14 In RASS 3 we also again say it's protective of
 15 human health in terms of the current land use situation,
 16 but there is concern about that soil migration -- soil
 17 erosion and migration and contaminants potentially to
 18 the wetland. There is also concerns about the chemical
 19 and pigment site up -- upstream upgrade.
 20 And in RASS 4 we also concluded that it was
 21 protective of human health and the environment except
 22 for the concern about trespassers having gained access
 23 to the site. So, there is some access control issues
 24 and some security issues.
 25 The overall recommendations in terms of moving

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1 forward are to conduct some focused studies to address
 2 data gaps. And I'll talk about each RASS. We did
 3 identify a few data gaps. Some relate to these recent
 4 observations we've made about the neighbors.
 5 The Navy's proposing to conduct a focus -- a
 6 very focused and supplemental feasibility study to
 7 evaluate additional cleanup options or alternatives in
 8 parts of the site that are not protected. And I'll talk
 9 more about where and what we mean.
 10 And then to address the access control issues
 11 in RASS 4 talk about how the Navy's proposing to deal
 12 with that, and then work with the agencies and the
 13 neighbors to address some of these off-site sources.
 14 So I know we're out of time. I'm just going to
 15 go quickly through each of the RASSes. This is really
 16 kind of the game plan for what the Navy is proposing to
 17 move this site forward and to keep some progress
 18 happening.
 19 For RASS 1 the Navy is proposing to collect
 20 additional data to address that area of distressed
 21 vegetation, to sample the groundwater, sample the soil
 22 in that patch of dead vegetation and outside of it, and
 23 try to figure out what might be causing it, whether it's
 24 chemical contamination, and also to collect some more
 25 current groundwater data, especially with these issues

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1 with the neighbors. The Navy kind of needs to check its
2 own groundwater wells again to make sure that things are
3 okay.
4 The ground monitoring was discontinued several
5 years ago when, you know, it was decided that there
6 wasn't significant concerns. The groundwater
7 concentrations had declined, you know, and kind of
8 continuing the monitoring didn't seem worth it. But
9 given some of these new concerns, the Navy is going to
10 go ahead and sample all of the wells again to see how
11 things look.
12 And then the Navy's proposing to conduct two
13 separate supplemental feasibility studies in the areas
14 I've been mentioning repeatedly tonight, these mosquito
15 ditches in the southeastern corner of RASS 1 and the
16 side arm of the slough, that western arm of the slough
17 in RASS 1.
18 MR. PONTEMAYOR: Question.
19 MS. GLEASON: Yeah.
20 MR. McLEOD: Just a quick one. On these
21 mosquito ditches, is the reason that it's so
22 concentrated in the ditches that's a pattern of flow
23 where the water goes through and so it builds up through
24 the ditch?
25 MS. GLEASON: I think to some extent they -- it

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1 probably acted as a sink, you know, a place where things
2 just sort of piled up. Because they're a low point the
3 water movement is not as fast in the ditches as it is in
4 like the slough, so yes, to some extent that's why.
5 And the concern about dealing with them is not
6 just that they have contaminants, which they do, but
7 that they act as a transport pathway. So, you know, in
8 order to prevent any more migration, it seems like a
9 good idea to try to block those ditches off. And so
10 during the supplemental feasibility we're going to look
11 at -- or the Navy's going to look at different ways you
12 have to cut those ditches off, either just by blocking
13 their ends and letting them fill naturally or filling
14 them in. There is a variety of ways you could stop them
15 as a migration pathway.
16 MR. McLEOD: Why not just remove the
17 contaminants that are in there and then block them?
18 MS. GLEASON: Yeah, that's one of the
19 alternatives that would be considered, to do a cleanup
20 and then block off or just to -- there is a variety of
21 alternatives that would have to be evaluated.
22 They're not very high habitat value, so there
23 is not much concern about making them go away. They're
24 not a natural feature, so I think it would benefit the
25 overall health of the marsh if they went away, at least

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1 in that corner where they're presenting a problem.
2 Okay. I'm not going to talk about any
3 recommendations for RASS 2 because there aren't any at
4 this point because the remedy was determined to be
5 protective.
6 In terms of RASS 3, the Navy is going to do
7 some more focused investigation of the groundwater
8 connections at that corner of Navy property and the
9 chemical pigment company. So the concern is really that
10 this chemical pigment facility has very high levels of
11 metals in their groundwater, there is a creek that runs
12 right next door, and we don't know yet whether
13 groundwater is flowing into that creek and potentially
14 bringing contaminants from the neighbors into the creek
15 and then down into RASS 3.
16 So we have in the five-year review some
17 specific recommendations about how we're going to do
18 that. And then also collect groundwater data in those
19 areas as well. And then additionally conduct, again, a
20 supplemental feasibility study focused on reducing soil
21 erosion in Nichols Creek area.
22 So this is not an additional cleanup. It's not
23 focused on cleaning up contamination. It's focused on
24 making a better riparian or creekside habitat that
25 prevents erosion, really solving the erosion problem.

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1 There's a variety of ways that that can be done.
2 And then finally the recommendation for RASS 4.
3 Again, we have that one data gap. We did observe some
4 unusual ashy-type soils in RASS 4, and so we're going to
5 sample those, you know, by samples right in the areas
6 we're concerned about, see what it is, if it's anything.
7 And then the facility -- Rudy and his team at the
8 facility are really going to work on the access control
9 issues, developing some kind of better security plan for
10 this part -- this site and fully fencing it.
11 The north -- north perimeter of RASS 4 is not
12 completely fenced, so additional fencing is needed, and
13 probably posting some signs, just working to get some
14 more security in that area.
15 So, that's the plan. These recommendations --
16 this level of detail is not in the draft five-year
17 report, which is probably the version that -- that, you
18 know, you all have.
19 We've been working with the agencies. We had
20 two risk management meetings, one in February, one in
21 March with all the agencies where we've sat down and
22 hashed out these recommendations. So these
23 recommendations reflect not just the Navy's position,
24 but many hours of discussion and brainstorming with the
25 agencies. So, there is pretty good agreement on

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1 generally what the next steps are for the site, what
2 needs to be done. And these recommendations will appear
3 in the draft final five-year review.

4 MR. McLEOD: Do you interface on any regular
5 basis or formal basis with Contra Costa County Health
6 Department on these issues?

7 MS. GLEASON: I don't. Our human health risk
8 assessor, when she was conducting the human health risk
9 assessment, looked -- I mean, she talked mostly to the
10 mosquito district because that ended up being the
11 receptor that was selected. She -- she does look at,
12 you know, what -- you know, the residential uses --

13 MR. McLEOD: Or the board of supervisors or,
14 you know, the -- the leadership of the county? I mean,
15 are they -- are they in this loop at all?

16 MS. GLEASON: Not -- not really, not actively.
17 I mean, in terms of the risk management decisions, you
18 know, Gil is the risk --

19 MR. McLEOD: I'm thinking of the land use
20 planning and that kind of stuff.

21 MS. GLEASON: In the future? I think that's
22 come up probably a little bit more on the inland sites
23 than the tidal sites because, you know, basically there
24 is not a plan to use these litigation area sites for
25 anything other than buffer zone in the foreseeable

1 I believe the gentleman's name was maybe Michael Kent,
2 and he is also the person that's in charge of the county
3 hazardous waste commission.

4 Marcus, are you familiar -- I think that's the
5 right -- hazardous waste commission.

6 MR. O'CONNELL: Hazardous waste commission.

7 MR. RAMSEY: So we had some conversations with
8 him about the fire and the five-year review and provided
9 him a copy of our letter.

10 MR. McLEOD: But they haven't been in the whole
11 process.

12 MR. RAMSEY: But in general I would just say
13 from the EPA and our experience as far as coordinating
14 with county level, it's typically not done with the
15 exception of underground storage tanks. Sometimes
16 counties are specifically delegated to deal with U.S EPA
17 on underground storage tanks.

18 So these kind of sites we -- and I'm sure Mary
19 might have mentioned -- but besides having our regular
20 group of the state water board, DTSC, because of the
21 environmental nature of the ecology at this site we also
22 have another group of agencies that we typically don't
23 see that we call the natural resource trustees for both
24 the federal and state.

25 And so Fish and Game plays more of an active

1 future.

2 Is that . . .

3 MR. PONTEMAYOR: That's correct.

4 MS. GLEASON: So in terms of future land use,
5 but that's why I -- like for the human health risk we
6 did that residential/industrial scenario in case in some
7 future time those sites were, you know, used for
8 something else.

9 Yes.

10 MR. RAMSEY: I was going to say, Dean, when the
11 EPA did our comment letter on the draft five-year
12 review, I believe you all had gotten copies of that too.
13 It's around September -- I think the EPA letter was
14 September -- around September '01 we released a comment
15 letter, and I believe the RAB was provided copies. And
16 I did want to point that out because I included as an
17 attachment to that letter the RoD because it's about
18 seven pages or something. It's a real small RoD. The
19 Navy had signed it in '89 for the site. So, that was
20 provided.

21 So if, Marcus, or you folks don't find that
22 letter, I would be happy to provide it. Because we had
23 this issue about the fire. It was a comment about
24 communication with the fire. In our letter Evelyn
25 Freitas had contacted the County Health Department. And

1 role in dealing with these ecological environmental
2 sites from the state side, and we also have the National
3 Oceanographic and Atmospheric Administration, NOAA,
4 Ms. Laurie Sullivan is the contact that works on this
5 base. And we have United States Fish and Wildlife
6 service, and they're all part of these discussions about
7 what's next and what to do and how to evaluate the
8 habitat.

9 MR. O'CONNELL: Are they really spending much
10 time? I mean, I know that their names are on the list,
11 but . . .

12 MS. GLEASON: Yeah, they went to the meeting.
13 Yeah.

14 MR. RAMSEY: We've had NOAA who -- a woman who
15 works in our office. We have a pretty good
16 participation on the part of NOAA, and sufficient for
17 Fish and Wildlife also. They have staff limitations,
18 and it sometimes takes a little work to keep their
19 attention, but they have been generally a part of these
20 discussions. In fact, we've got a new representative
21 from Fish and Wildlife now, a part of the group who also
22 works with DTSC --

23 MR. PINASCO: That's NOAA.

24 MR. RAMSEY: Oh, that's NOAA. I'm sorry.

25 You're right. That's NOAA, actually.

1 So Fish and Wildlife, we're actually getting
2 Jim Haas kind of back who's been on the project for
3 years, and he's I think kind of getting refocused here
4 because of some switching resources and things.
5 MS. GLEASON: But we had Sonsto Reeves also
6 come.
7 MR. RAMSEY: And Sonsto Reeves is -- is -- she
8 plays this very unique role who's like one of my
9 technical support staff members who's with Fish and
10 Wildlife, but I use her just like she's a U.S. EPA
11 technical support for ecological. She actually
12 represents more the EPA than she will speak up for Fish
13 and Wildlife but --
14 MR. PINASCO: That's kind of what Denise is
15 going to do for us.
16 MR. RAMSEY: For NOAA; right?
17 MR. PINASCO: No; she'll replace Laurie.
18 MS. GLEASON: Just before I answer your
19 question, just along those same lines, I just wanted to
20 add something. I mean, this site, the ecological risk
21 is really -- you know, really one of the main drivers,
22 but we're also still struggling with that environmental
23 trade-off that the remedy is very destructive, at least
24 in the short-term, if not in the long term.
25 It's very hard to, you know, restore a wetland

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1 to its pristine, natural, very diverse state. So any
2 type of action that's being considered, everybody at the
3 table really wants to limit it to just the areas that
4 are really a problem because you don't want to just go
5 out there with a bulldozer and dig up that whole
6 wetland. The impact -- the ecological impact would be
7 worst by the remedy than the problem. And so any
8 additional action is going to be very focused probably.
9 And, you know, everybody coming to the table
10 with their different mandates. NOAA comes being
11 concerned about the fish and the sloughs, Fish and
12 Wildlife comes being concerned about the mouse. And,
13 you know, you have to trade off. What's good for one
14 species is not necessarily good for another. You know,
15 if you drive across the marsh to go clean out that
16 slough, you're going to destroy salt marsh harvest mouse
17 habitat while you do that in trying to protect the fish.
18 So, there is a lot of trade-offs. And it's not
19 an easy site in terms of making decisions. There is a
20 lot of -- you know, kind of heartbreak involved in both
21 ways, you know, because the remedy is destructive.
22 Yeah.
23 MR. McLEOD: My question goes back to the
24 litigation area cleanup and monitoring. And I made some
25 notes about the -- it appeared pretty clear that --

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1 Nichols Creek is like the worst part or one of the most
2 dangerous parts, most toxic parts. Is that right?
3 MS. GLEASON: Not in terms of contamination,
4 no. In terms of being a migration pathway, it's of
5 concern. What we don't know about is exactly whether
6 the groundwater and chemical pigment is getting into
7 Nichols Creek. We do have some water quality problems
8 in Nichols Creek. Water, you know, is exceeding ambient
9 water quality criteria for a few metals, copper and
10 zinc. Soils are not that bad.
11 In terms of the highest levels of contaminants,
12 it's the side slough in unit 1. This area here and a
13 few -- a few locations in the ditches are where we've
14 seen the highest contaminants. It's not Nichols Creek.
15 Nichols Creek is, again, that potential
16 transport pathway. That's how the contaminants got
17 there in the first place. They came down --
18 historically down to the street from this transport
19 pathway.
20 MR. McLEOD: So they were transported through,
21 but they don't contaminate it?
22 MS. GLEASON: The soils were contaminated in
23 Nichols Creek, but the remediation was focused on
24 Nichols Creek. So they actually dug out the whole creek
25 and cleaned it up. So, it's not as bad as it was. But,

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1 yeah, historically it probably was pretty bad.
2 MR. O'CONNELL: First question I think is for
3 Jim, and it has to do with the off-site chemical and
4 pigment company.
5 MR. PINASCO: Yeah.
6 MR. O'CONNELL: What's the status of those
7 right now? What -- I guess my concern comes -- is that
8 we're dealing with an upstream pollution source
9 potentially that might be pushing pollution down on the
10 Navy property. So if we're going to clean up Navy
11 property without addressing the upstream first --
12 MR. PINASCO: The status is there is some
13 emergency response actions there to stabilize the site
14 and removal of some chemicals. I think they're looking
15 at stabilizing that soil pile. Other than that, it
16 falls into a legal quagmire.
17 We have to determine one, are there any
18 potential PRPs, responsibility parties, that we can go
19 after, or does it fall on the orphan site. And that's
20 basically where it's at right now. So we're trying to
21 determine that status.
22 MR. O'CONNELL: Is that like an active search
23 for a determination, or is it kind of in limbo?
24 MR. PINASCO: No. As far as I understand, I
25 talked to the project manager last week, and she was

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1 supposed to have a meeting with our legal staff to begin
2 that operation. And I also am going to try and make
3 whatever information we get from there available to the
4 Navy and the other regulatory agencies to help with
5 their decisions.

6 MR. RAMSEY: I was actually going to add
7 actually, Marcus, because we have been watching, again
8 as Mary pointed out, there is a pretty large spoils
9 pile. It's close to 10,000 cubic yards of material.
10 And so, that has been a potential, that this stuff could
11 mobilize, could move.

12 Especially during the rains this winter we were
13 watching it, and we have noticed there has been some
14 work going on out there. And we don't see a lot of
15 activity, but it's like fences suddenly appear, signs
16 were up around the spoils pile, attempts to -- appeared
17 to be some attempts to pull the tarp back up on the
18 spoils pile. Again, hazardous waste signs around it.
19 These are all new. So something has been done. We're
20 not exactly sure who's doing that.

21 MS. TANASESCU: I'm just wondering, are there
22 any plans to remove the soil pile from anywhere?

23 MR. PINASCO: Eventually.

24 MS. TANASESCU: Do you have to figure out who
25 to sue first in order to get it done? Is that --

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1 MR. PINASCO: Basically; or do we do it on our
2 own.

3 MS. TANASESCU: Do they have any time frame in
4 case they can't find someone, how long would it take the
5 State, then, to decide to remove it?

6 MR. PINASCO: I can't answer that right
7 offhand. I mean, I'm not really active with that group,
8 and it's in another, you know, office. I mean, I'm out
9 of Sacramento or out of Berkeley. So we talk, but not,
10 you know, on a consistent basis.

11 MS. TANASESCU: In terms of what's actually in
12 the soil pile, I'm not really clear what that is, but we
13 have extremely high winds in that area that blows a lot
14 of things over those homes. I mean, those homes -- you
15 can't keep your house clean from one week to the next.
16 I'm concerned about what may be blowing over the
17 neighborhood from the soil pile.

18 MR. RAMSEY: Right. I think that's why we --
19 in the short-term we want to see and by working with the
20 Navy to ensure that that pile is stabilized. There had
21 been tires and on -- secured with ropes on top of the
22 pile, but what happened is we believe probably youths
23 were having great fun rolling tires because we'd go down
24 by the creek and we'd find big piles of tires, and we
25 knew there was ropes across the pile. So people had

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1 done construction techniques of securing the tires on
2 the pile stabilizing it, but there is just security
3 issues there on this abandoned private property.

4 But that's why we're trying to -- short term
5 assuring that if it's not removed that these things are
6 stabilized. And I didn't want to comment that the
7 Navy's consent decree. It -- actually, one of terms we
8 believe were that they -- the company was to actually
9 have been removing something like a thousand cubic yards
10 a year. And since when the consent decree was signed,
11 and, again, I'm sure that goes back six, ten years,
12 something like that when --

13 MS. GLEASON: Should have been long gone by
14 now.

15 MR. RAMSEY: -- that was signed. So based on
16 the original agreement that stuff should have already
17 been gone.

18 MS. GLEASON: The problem is the company went
19 bankrupt, and so all that kind of just fell by the
20 wayside.

21 MS. TANASESCU: Are the fences that have been
22 erected to date effective in keeping out youth from
23 going back in there?

24 MR. RAMSEY: Well, it's -- again, this is a
25 pile. If you've ever just driven down the end of the

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1 highway there to where Nichols Road is at the chemical
2 plants, the pile's pretty obvious. I guess we don't
3 know about what happens, you know, at night or something
4 in, you know, that section of town.

5 Basically, I guess, you know, people want to be
6 mischievous, they can be mischievous. I think by
7 putting up the signs that say hazardous waste, you know,
8 hopefully it would keep kids from being -- let's go play
9 on a pile of dirt if there's a sign there that says
10 hazardous waste. And it is a chain-link fence that
11 surrounds that spoils pile.

12 MS. TANASESCU: So until the responsible party
13 is found, is the State more or less just a guardian, or
14 a trustee of the site or --

15 MR. PINASCO: It's our site. I mean, it's the
16 State's site. But where do we go with it, you know, I
17 can't answer. I'm not -- like I said, I'm not part of
18 that group, and that's a decision they have to make.

19 MR. RAMSEY: They probably typically want to
20 find out if there is viable PRPs before the State tries
21 to start to budget the cost to dispose of all that
22 material.

23 MR. McLEOD: It's going to be in litigation.

24 MR. PINASCO: And if they do find -- you're
25 right, if they find anyone, it'll -- it'll probably end

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1 up in litigation first.
2 MR. O'CONNELL: It seems like public safety is
3 at risk here from what we're hearing and that perhaps
4 there should be a sense of urgency to abate the
5 property.
6 MR. RAMSEY: I think it still says -- I mean,
7 it does say it's private property. There is signs
8 there. It says private property. It has a -- you know,
9 some private security firm. You know, if they come
10 there or not, we don't know.
11 The office is -- is demolished. There is
12 broken windows. We haven't gone inside the building.
13 It's not a very pleasant place, but, again, it's -- you
14 know, it's a bankrupt company, right now anyways.
15 So, that's why the whole discussion with the
16 agencies have been Navy wants to go in, go to DTSC to
17 review the files on this site. And they're doing some
18 studies to assess, you know, what s -- we want to make
19 sure the spoils pile wouldn't potentially just flow down
20 into Nichols Creek. That would be disastrous.
21 We've been monitoring that pile during the
22 winter, and we're happy to see that people are coming
23 out there appearing to do some minimal improvement, but
24 it's better than nothing. So someone was doing
25 something out there. We did not see any sediment
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1 migrating from the spoils pile this winter either.
2 MR. O'CONNELL: I guess what the question is,
3 we're getting an earful about that, but what I'm
4 hearing, somebody's got to get a little fire under their
5 butts, get down there and do something because we have
6 both a threat to the public health and people's
7 surroundings.
8 It sounds like there's windborne distribution
9 of heavy -- heavy metals and also the access issues that
10 surround it, that kind of thing.
11 But to bring it back to what we're all about
12 here, the Naval Weapons Station, it may well be coming
13 back onto Naval Weapon Station's property, and for us to
14 be doing that remediation with that problem unaddressed
15 seems foolish.
16 I know you're aware of that but . . .
17 MR. RAMSEY: And we're trying to -- and we're
18 trying to. And that's definitely the Navy's position.
19 We want to -- we're trying to assess that some of these
20 things have different kind of weights to them, potential
21 in terms of, say, not taking an action in Las Slough
22 because what may be happening way upstream with some
23 groundwater issues. We were -- kind of felt that we
24 have contaminant sediment in Las Slough. Potentially
25 it's impacting the aquatic invertebrates and fish right
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1 now.
2 So EPA's position is we have a really light
3 risk coming from a mile upstream. It shouldn't
4 necessarily delay actions on sediment that's impacting
5 fish and wildlife right now in the habitat, though. So
6 part of the challenge of --
7 MR. O'CONNELL: Let me take that and move on to
8 my next question.
9 Cleaning up the sloughs. We've talked about
10 cleaning up the ditches, how you might do that.
11 Cleaning up the sloughs, you say the stuff is sort of
12 sloshing back and forth. It would seem that some of it
13 has to be entering Suisun Bay. I mean, there is a
14 direct connection between Suisun Bay and the sloughs.
15 MS. GLEASON: Right. You would think so, but
16 we've done a lot of studies to look at that, and studies
17 looking at contaminant concentrations and the selenity.
18 The selenity varies from all -- the bay all the way up
19 to the sloughs due to evaporation. So we've kind of
20 done a bunch of studies to see that. That was our
21 impression.
22 We also did sampling during winter storm
23 events. You know, those big railing storms. We are not
24 seeing significant amounts of contamination coming out
25 into the bay at the mouth of Las Slough. And the
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1 selenity data indicates that that slough of water, you
2 know, when the tide's going out, it doesn't make it all
3 the way out before the tide comes in again.
4 So, that didn't mean that on a storm event or
5 something you don't have some contamination potentially
6 going out, but there is not a significant problem of
7 contaminants getting into Suisun Bay. In terms of our
8 study it's really -- what we're focused on is more the
9 problem on the site.
10 MR. O'CONNELL: Okay. The next question is --
11 THE REPORTER: I can't hear you. I'm sorry.
12 MR. O'CONNELL: -- has to do with the --
13 MS. TANASESCU: She wanted you to speak up.
14 MR. O'CONNELL: The next question had to do
15 with the destructive test of the remedy to the wetlands.
16 And I was wondering about phasing a remedy so
17 that perhaps you're doing ten percent of land area each
18 year so that an area is self-destroying itself, and then
19 you have sort of like -- like the way they cut forests
20 sometimes.
21 MS. GLEASON: Step out sort of thing.
22 MR. O'CONNELL: Yeah.
23 MS. GLEASON: I think in terms of remedy in the
24 slough, for example, that side slough, it's going to
25 be -- it's going to be pretty complicated in terms of
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1 just engineering. Even if you decided to do it, I mean,
2 just putting aside the trade-offs and stuff, if you
3 decided to do it, to fill it, to clean it out in some
4 way and fill it, or just clean it out, you're still
5 going to have to get heavy equipment out there, which
6 means you're going to have to build some kind of access
7 road out to that slough, which is going to be very
8 destructive.

9 And that kind of destruction you'd want to
10 remedy pretty quick. I mean, you wouldn't want to leave
11 a road out there for many years. I mean, you'd probably
12 want to do it all as one action to, you know, minimize
13 the damage.

14 What we have talked about is really looking
15 carefully and maybe not even the whole thing of the
16 slough needs cleaning out. Maybe do more hot spot
17 removals along the length of it, just getting the worst
18 of it, and trying to do it all sort of all in one fell
19 swoop.

20 MR. O'CONNELL: As we go through the slough, I
21 was talking about the acreage.

22 MS. GLEASON: In terms of the marsh surface?

23 MR. O'CONNELL: Yeah.

24 MR. GLEASON: At this point the Navy's not
25 recommending doing any removal on the marsh surface

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1 itself. They're talking about closing off those ditches
2 in the southeast corner and then cleaning out that side
3 slough. So we're not talking about doing any kind of
4 big removal of the marsh surface.

5 And this is for a couple of reasons. One, the
6 risk estimates were pretty low, and the remedy is very
7 destructive, so that trade-off, you know, is not a good
8 one. The amount of risk deduction you could get for the
9 damage would not be very good.

10 And, also, what we're seeing is that the marsh
11 surface is actually getting covered by cleaner soils.
12 As the tide comes in, you know, it brings sediment.
13 Basically the marsh is always going up to meet the
14 water. And so when the tide's coming in, it's bringing
15 cleaner sediments from the bay.

16 What we're seeing when we looked carefully down
17 through six inches of sediment on that marsh surface is
18 that the top few inches are pretty clean. Often below
19 our benchmarks. The contamination -- the historic
20 contamination tends to be down at three to five inches
21 below the marsh surface. So, it is actually sort of
22 naturally healing in a sense that the contamination is
23 getting further buried, and the surface is pretty clean.

24 And so for things like the salt marsh harvest
25 mice, they're just exposed to the surface. They don't

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1 burrow out there, they don't dig. So the idea was that
2 really the marsh surface is not -- not really -- we're
3 not talking about doing a remediation there because the
4 risk is not -- does not warrant it at this point.

5 MR. O'CONNELL: Okay. My next question is -- I
6 think for Laurent. One of the reasons that the Weapons
7 Station got investigated in the first place, I believe,
8 is because of the possibility that contamination was
9 coming off these sites into Suisun Bay.

10 And I'm wondering is -- does the water quality
11 control board feel that adequate monitoring is being
12 done on the wetland bay interface to make sure that the
13 water -- the contamination isn't being transferred from
14 this site into the bay?

15 MR. MEILLIER: Well, in my comments that were
16 dated I think September 17th, 2001 on the -- on that
17 report -- on the five-year litigation monitoring report,
18 the water board suggested and recommended the Navy to --
19 to consider groundwater sampling at the well ways that
20 are present throughout the RASSes, and especially the
21 RASS 1, 2 and 3.

22 And, also, the water board recommended that a
23 better characterization of surface groundwater
24 interaction as well and that -- that especially, you
25 know, the water at the berm with General Chemical

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1 Company.

2 And then, lastly, there is -- you know, I mean,
3 there is an understanding that there is contaminants in
4 this area and that there is potentially erosion in the
5 geography of the bay muds. The bay muds, you know, has
6 high hydrological activity, but there might be --
7 especially the nature of the upland and the marsh and
8 the wetland area or the tidal area is potentially
9 contaminated which might be used -- potentially used as
10 a vehicle for contaminants to reach the bay somehow.

11 And at a meeting with Tetra Tech and the Navy,
12 I also brought the potential idea of -- of sampling
13 water as it might come in as -- into the bay.

14 It's technologically viable, somewhat involved
15 and somewhat -- somewhat complex, complicated, but
16 that's viable. So, that's kind of like, you know, the
17 position of the board.

18 I think, you know, as Mary represented, the
19 groundwater hasn't been sampled since 1996. And it is
20 true that during -- during, you know, the last samplings
21 that were made at those waterways that contamination
22 didn't seem to be very high, and that I guess the board
23 at the time -- at the time agreed that groundwater
24 sampling could be discontinued.

25 But I think, you know, they are -- need to

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1 confirm that again and also to characterize that surface
2 groundwater interaction. And I think -- so, it's
3 important that the Navy considers those. Especially in
4 the areas of distressed vegetation or the mosquito
5 ditches that they consider sample -- sampling surface
6 water.
7 And, of course, that was the position that
8 contaminants are there. You know, it is true that, you
9 know, it is low, but, you know -- and that's -- can be
10 exposed to because the contaminants are there. And, you
11 know, we can look at it in short-term basis, but we
12 might want to look at it on the longer term and what
13 would be the contaminants. And that's -- it's also
14 farfetched kind of idea, but it's important to that as
15 well.
16 MR. O'CONNELL: Thank you.
17 MR. MCLEOD: So the essential thing that you're
18 saying is that if we were to have like two or three
19 years of really heavy rain and the water level of the
20 bay, that were to increase, there would be more flow of
21 water across there, would that be -- would that increase
22 the danger of transfer of contaminants into the bay?
23 MR. MEILLIER: Yeah. Well, you know, that's a
24 good question. I also presented, you know -- I mean, on
25 a longer term, you know, like over 100-, 200-year time
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1 scale it is possible, for example, and just actually
2 been documented, you know, due to the change, and that
3 could be, you know, stress of the system there.
4 And it's true that -- you know, that -- you
5 know, it's -- it's probable that, you know, it will --
6 increase rainfall over a short time scale, that that
7 might change the hydrology -- hydrology regime of the
8 area and potentially expose areas to erosion and, you
9 know, basically moving off the clean sediment to expose
10 contaminated sediment to migration.
11 MR. MCLEOD: And has there been any kind of
12 study of the historical record of the wetlands over the
13 last 150 years; for example, how many years were flood
14 years where there was extensive flooding throughout the
15 wetland and the upland areas?
16 MR. MEILLIER: Yeah, I -- one of the other
17 comments that I also presented in the letter is that the
18 Navy to include especially the sampling period. So,
19 that's, you know, there is a better correlation and
20 there is better understanding even for future reviewers
21 and/or just the baseline of the understanding of the
22 site -- of the climates. You know, how the climate
23 might have potentially influenced, you know, the results
24 that were found during the sampling period, but I do not
25 think the Navy has done -- has done a long-term climate,
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1 and also, you know, hydrologic study of the system over
2 the time scale, actually.
3 MR. PONTEMAYOR: Well --
4 MS. HUNTER: She's going to need a break pretty
5 soon. It's been two hours. I don't know how much
6 longer we have, but I'm just reminding everybody.
7 MR. PONTEMAYOR: We have overrun our time,
8 really, but I guess we can take a five-minute break to
9 change the tape, if that's okay, and then kind of touch
10 on the other items of the agenda.
11 (Recess taken: 9:03 p.m. to 9:08 p.m.)
12 MR. PONTEMAYOR: Well, folks, should we settle
13 down for the second phase of our meeting?
14 I'm sorry that we're running late, but the
15 discussions --
16 And thank you, Mary, for that presentation.
17 All the questions that were asked, they were
18 really some -- pertinent to the presentation that we
19 had, had to be asked and had to be answered because of
20 its relevance. And because of that I purposely omitted
21 announcements, which I think I can do now.
22 Yes.
23 MR. O'CONNELL: Could I just make one more
24 comment about the litigation area before we go on?
25 MR. PONTEMAYOR: Sure.
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1 MR. O'CONNELL: I just want to read -- and this
2 more has to do with the tidal area landfill, what's
3 going on, than it does with this litigation site in
4 particular. I just want to read you a sentence, though,
5 from page 3 of the five-year review summary. It says,
6 "The full extent of contamination may not have been
7 known at the time the remedy was selected and the RoD
8 was signed."
9 And I see some real parallels there with what
10 could happen with the tidal area land if -- I mean, if
11 we proceed too quickly, that we can look back in time to
12 say the full extent of the contamination of the tidal
13 area wetland was not known at the time the remedy was
14 selected and the RoD was signed. And so I just wanted
15 to make that point. That comment. That's it.
16 MR. PONTEMAYOR: Thank you.
17 John.
18 MR. BOSCHE: I just wanted to mention then, if
19 they had hesitated instead of conducting some
20 remediation, there could have been more environmental
21 damage than what actually occurred because it's the
22 nature -- it's the nature of environmental investigation
23 that -- that you sample and you -- you determine what's
24 feasible -- economically feasible to determine and then
25 you need to make decisions. And that's why monitoring
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1 is an incorporated portion of remedial work.
2 So although there are residual problems, I look
3 upon what's been done as -- as a success. There is
4 large areas of very contaminated -- of very contaminated
5 site that have been remediated successfully
6 MR. O'CONNELL: I still have serious
7 reservations about learning the fact that the same
8 situation could occur with the tidal area landfill
9 but . . .
10 MR. RIVERA: I would like to make a comment
11 also about the litigation area.
12 The monitoring that was conducted over the last
13 several -- five years not only included monitoring but
14 also identification of data gaps. So, it wasn't just
15 strictly monitoring. We went out and looked at the data
16 gaps and gathered additional data. So much so that this
17 particular site is data rich, and it may be the basis
18 for selecting a West Coast reference site for ecological
19 sites. On the entire West Coast there are currently
20 none. They are only on the East Coast, and they're not
21 suitable.
22 MR. McLEOD: And what's the implication of
23 that?
24 MR. RIVERA: The implication of that is when
25 other sites are selected for remediation is what you
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1 have do is you look for a benchmark site. In other
2 words, we have these particular conditions on a
3 benchmark site compared to the site that's being
4 investigated, and how do you rate it with respect to
5 that benchmark site or reference site and on your site.
6 And it's the -- I guess the jumping-off point for
7 additional monitoring or investigation for a particular
8 site to identify remedies and so on.
9 MR. PONTEMAYOR: Thank you.
10 I would like to open the floor for either
11 recommendation, discussion, or other interests the RAB
12 may have for a site tour of the litigation area and the
13 AOC-1.
14 And the next item is the technical presentation
15 of AOC-1.
16 Anybody interested in a site tour of the
17 litigation area?
18 MR. O'CONNELL: I am.
19 MR. McLEOD: Sure.
20 MR. GRIFFITH: Yes.
21 MR. O'CONNELL: I believe it's unanimous on the
22 part of the committee members.
23 MR. PONTEMAYOR: When do you think is a good
24 time frame for that, what day?
25 Again, we may have to do this on Saturday and,
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1 of course, it has to be correlated with the Army (sic),
2 although we don't necessarily have to go inside the base
3 for access. We can use the Nichols Road access to go
4 there. But, nonetheless, we have to advise the Army
5 that we are conducting a site tour, as a courtesy.
6 Saturdays in May are 4th, 11, 18, and 25th.
7 MR. O'CONNELL: How about the 11th?
8 MS. WILLIAMS: That's great. That's great.
9 I'm busy on the 4th and the 18th.
10 MR. BOSCHE: We have a key member --
11 MS. GLEASON: Sorry, it doesn't work for me on
12 the 11th. I can do the 18th.
13 MS. TANASESCU: I can't come on the 18th.
14 MR. McLEOD: We need our key member, though.
15 MR. O'CONNELL: How about the 4th?
16 Mary Lou?
17 MS. GLEASON: Actually, I can only do the 18th
18 in May in terms of a Saturday. I can do another day.
19 MS. TANASESCU: That's the only day of the
20 month I can't do it. Well, on Monday through Friday,
21 but . . .
22 MR. O'CONNELL: What about Sunday?
23 MS. WILLIAMS: Monday?
24 MS. TANASESCU: He said Sunday.
25 MR. PONTEMAYOR: Dave.
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1 MR. BAILLIE: You know, just --
2 Dave Baillie. I have just a suggestion. And
3 these are things we've done at Seal Beach. And
4 sometimes we've chosen to use a RAB meeting time -- in
5 the summertime this works out, in the wintertime it
6 didn't. But in the summertime, you know, you can -- and
7 if you can even start a half hour early, you can kind of
8 squeeze in -- from like 6:30 to 8:30 instead of 7:00 to
9 9:00 you can squeeze in, you know, probably enough time
10 to do a site tour. And that's something that the group
11 may want to consider.
12 But, again, I was just throwing out as an idea
13 that we found successful at our base in Seal Beach.
14 MR. O'CONNELL: This is a 300-acre site. It's
15 taken us quite a bit of time to get through the site in
16 the past, about two to three hours.
17 MR. BAILLIE: Well, again, just something to
18 consider.
19 MS. GLEASON: Just another point to raise. I
20 mean, it is a 300-acre site, but about 200 acres of it
21 are wetland, and you're going to need some hip waders
22 and, you know, some boards to jump across the ditches.
23 I mean, it's not -- most of the site's not all that
24 accessible. So in two to three hours you can go to the
25 viewpoints and see the major places, but, you know, it's
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1 going to be hard to walk way out on the site.
2 MR. O'CONNELL: How much time do you think we
3 should take to see it?
4 MS. GLEASON: I think, you know, two hours out
5 there, you know, is enough. You know, three hours
6 altogether, to get organized and meet and all that.
7 MR. O'CONNELL: Okay. Are Sundays viable for
8 the group?
9 MR. McLEOD: I prefer not to.
10 MR. BOSCHE: Rudy, is it okay with the Navy?
11 MR. PONTEMAYOR: I will be having a difficult
12 time with Sundays.
13 MR. O'CONNELL: Okay.
14 MR. McLEOD: I would like to consider the
15 evening thing. By mid May the days are getting pretty
16 long.
17 MR. GRIFFITH: We can start at 6:00 o'clock
18 instead. 6:00 to 8:00 there would be plenty of light,
19 wouldn't there?
20 MS. GLEASON: Yeah, that would work.
21 MR. O'CONNELL: Should we do it at 5:00, maybe,
22 just to make sure we have the three hours of daylight?
23 MR. McLEOD: I can't.
24 MR. GRIFFITH: 5:30, maybe.
25 MR. McLEOD: 5:30.

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1 MR. PONTEMAYOR: 5:30 on May 18th?
2 MS. GLEASON: Another day. No, the 18th the
3 whole day is gone. I can't make it.
4 MR. O'CONNELL: Somebody want to make a
5 suggestion?
6 MR. McLEOD: The night of our May RAB meeting.
7 MR. PONTEMAYOR: May 6?
8 MR. O'CONNELL: No, because we'd be here -- a
9 three-hour site tour?
10 MR. GRIFFITH: In lieu of the meeting.
11 MR. O'CONNELL: Huh?
12 MR. GRIFFITH: In lieu of the meeting but not
13 in addition.
14 MR. O'CONNELL: We have stuff to discuss too
15 potentially. We don't know yet, but I think we -- there
16 is some issues that are coming up here, more than just a
17 meeting -- I mean, more than just a site tour.
18 MR. McLEOD: Are you saying the 18th is the
19 only day you can come?
20 MS. GLEASON: No; it's the only Saturday. I'm
21 out of town May 1st through the 11th, and then I'm
22 leaving town on the 25th for a while. So between the
23 12th and the 25th and the 24th.
24 MR. PINARD: You've had two meetings in
25 April --

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1 Tom Pinard speaking. You've had two meetings
2 in April. Why not -- if you think that you need the
3 regular RAB meeting on May 6, why don't you do it two
4 weeks later on Monday, just like in this case, you have
5 a special RAB meeting, and it's just adjourned to the --
6 as a site tour.
7 MS. TANASESCU: Well, she's not here on the 6th
8 anyway. She said she's out of town.
9 MR. PINARD: Well, she's not important on the
10 6th. She's important for the tour, not for the regular
11 Monday RAB meeting. You have the regular RAB meeting on
12 the 6th, and then two weeks later on a Monday night you
13 have an adjourned meeting out to the site.
14 MR. O'CONNELL: What time in the evening?
15 MR. McLEOD: 5:30. I can do 5:30.
16 MS. TANASESCU: Yeah, I can. Yeah, that will
17 be okay.
18 MS. GLEASON: Is that really feasible?
19 MS. TANASESCU: I have to leave work early to
20 do it.
21 MR. O'CONNELL: Is that a problem, or is that a
22 joy?
23 MS. TANASESCU: I don't know.
24 MS. GLEASON: I think even if we met at 6:00
25 o'clock, if we met like at the corner of Nichols Road

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1 and Port Chicago out there, as long as we weren't
2 meeting here and trying to get organized and go out
3 there -- if we were meeting out there at 6:00, we would
4 still have a couple hours of light, and that would
5 probably be fine.
6 MR. O'CONNELL: Would 6:00 o'clock on May 20th
7 at Nichols be okay for the community RAB members and the
8 agencies as well?
9 MR. GRIFFITH: Yes.
10 MR. O'CONNELL: Okay.
11 MR. PONTEMAYOR: So May 20 at 6:00 o'clock,
12 6:00 p.m.
13 MR. GRIFFITH: How about we say 5:45 to ensure
14 that everybody's there and out there by 6:00. Say 6:00,
15 we -- we really have to be on our way by 6:00 in order
16 to beat dark.
17 MR. O'CONNELL: That's correct, because there
18 is a deadline here.
19 MR. GRIFFITH: Say 5:45.
20 MR. PONTEMAYOR: Corner of Nichols and Port
21 Chicago.
22 MR. O'CONNELL: Okay.
23 MS. GLEASON: Wear good walking shoes. It's
24 kind of rugged territory. We won't go out in the marsh,
25 you won't get wet, but still it's kind of rugged turf.

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1 MR. McLEOD: Boots.
2 MR. PONTEMAYOR: Okay. And another item that I
3 would like to bring up to the board is you have heard a
4 brief and you have been to training last Saturday. I'm
5 just assuming that there is interest among board members
6 for more specificity on eco risk or human health risk
7 down to the sample -- down to the bioassay of aquatic
8 animal or fish or whatever.
9 Is there such interest? I'm sure there is.
10 Right?
11 MR. O'CONNELL: Yeah, there is.
12 MS. TANASESCU: Yeah.
13 MR. O'CONNELL: Are my board members
14 interested -- community board members interested in
15 more?
16 MS. TANASESCU: Yes.
17 MR. O'CONNELL: Yes.
18 MS. WILLIAMS: Will that training --
19 Mary Lou Williams. Will that training give us
20 a little more detail on how the actual procedures are
21 done as far as the analysis process?
22 MR. PONTEMAYOR: Yes, I believe so.
23 Since you already have undergone general
24 training or general overview training, then the
25 consultants can -- can go into more detail on

1 methodology and all kinds of things associated with
2 that.
3 MS. WILLIAMS: Okay.
4 MR. PONTEMAYOR: Okay. So perhaps during the
5 June RAB meeting, or set another date in June, I'm -- at
6 the back of my head is another presentation for AOC. I
7 know that AOC-1 -- I know that is of interest to the
8 board as well.
9 MR. O'CONNELL: Would we be doing that the same
10 evening, though, as the litigation area since they're
11 right adjacent?
12 MS. GLEASON: On the site tour? Sorry. Yeah,
13 we would. We would be going right by it. Yeah, we
14 could do that in terms of a site visit of AOC-1.
15 MR. PONTEMAYOR: Sure, we can combine AOC-1 and
16 the litigation area tour.
17 What I'd like to propose also is since the time
18 critical project that -- the AOC-1 is coming very soon,
19 I guess during summer, depending on when the contract
20 can be negotiated and awarded -- awarded and
21 negotiated -- that the board may be interested in a
22 technical presentation for AOC-1.
23 MR. O'CONNELL: Do you want to rephrase that?
24 I was -- I was distracted.
25 MR. PONTEMAYOR: Basically what I am -- what

1 I'm proposing to the board is have a technical
2 presentation in one of your RAB meetings for AOC-1.
3 MR. O'CONNELL: Okay.
4 MR. PONTEMAYOR: Dean.
5 MR. McLEOD: What I'm concerned about at this
6 point is these follow-up items could take several
7 meetings, and I think they're important items that we've
8 sort of been deferring. And I would like to get to
9 those, not -- I don't think we're going to have time
10 tonight, but I would prefer to do those before we get
11 into any specific technical training because these are
12 still set-up type things that we haven't finished.
13 MR. PONTEMAYOR: Sure. So we can discuss that
14 in later meetings, I suppose.
15 MR. McLEOD: Yeah, because I could see us going
16 a couple of meetings just with that stuff.
17 MR. PONTEMAYOR: Good.
18 So we'll get right to it. The first one there
19 on follow-up action items is update on the top right by
20 the community co-chair.
21 MR. O'CONNELL: Okay. We have a TAPP Grant
22 subcommittee which I believe as of last night came up
23 with a version of the TAPP Grant to be distributed to
24 the other community members for their approval. I think
25 actually at this point we have a sufficient vote passing

1 that TAPP Grant, but I think we should pass it by
2 everybody for one last chance.
3 We decided tentatively, with the approval of
4 the community members, we'll concentrate on two areas
5 for our TAPP Grants. One is the litigation, one is the
6 blanket tidal area.
7 And we have got, as I say, a preliminary TAPP
8 Grant together that we will submit to the Navy. We
9 expect that we'll get some feedback from the Navy. That
10 it may not all be in order at this point, but we have
11 followed the TAPP Grant, et cetera. So I think that we
12 should be able to get that to the Navy probably as early
13 as Wednesday because it's literally done.
14 MR. PONTEMAYOR: Very good. Thanks.
15 Next item, Navy response to RAB letters. My
16 apologies for -- for the RAB response. Really the
17 letters were mailed last Friday but obviously has not
18 been received by the members. So I provided a hard copy
19 of the Navy's response to the RAB members that wrote the
20 letters. I can make copies for the others as well, and
21 for the community.
22 So I guess you need some time to digest that
23 and then get back to the Navy with your specific
24 comments to the various issues in that letter.
25 MR. McLEOD: I'd suggest we just table it until

1 next time.
2 MR. PONTEMAYOR: Sure. Thanks.
3 Status update by the community co-chair.
4 MR. O'CONNELL: We'll probably have the bylaws
5 for the May meeting I hope. That will just cut to the
6 quick since we're in a hurry.
7 MR. PONTEMAYOR: Okay. Next item is Community
8 Relations Plan update from EFA West.
9 Gil.
10 MR. RIVERA: Our initial plan for the
11 development of the Community Relations Plan called for
12 negotiation and award of that particular effort by mid
13 May. I talked to my management, and we talked to the
14 people in our contract school, and we would like to
15 accelerate that for a negotiation and award by the end
16 of April so we'll be able to move out on it.
17 I don't have a time line yet. Once we get the
18 negotiation out we can produce a hard time line, but
19 right now we're looking at a public notice probably
20 sometime mid May, beginning of interviews early part of
21 June or mid June. The interviews will require
22 participation by the RAB members as well as by the
23 contractor and the Navy representatives.
24 Right now we're looking at approximately 50
25 interviews. That's subject to change. That's what --

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1 where our thinking is taking us right now. And we'll be
2 looking for the RAB members to provide, for instance,
3 various community organizations, public service groups,
4 local government and areas -- geographic areas where
5 residents might be with respect to formalizing a public
6 relations plan.
7 But right now we're accelerating the schedule,
8 as I've stated, and we hope to award that by the end of
9 this month. And I'll keep you posted on the schedule as
10 it comes up.
11 MR. McLEOD: And what is your process for
12 selection or promoting or advertising the availability
13 of the work?
14 MR. RIVERA: What we do is generally the scope
15 of work. In the scope of work we look at the various
16 contracts that are available to us for award of a
17 Community Relations Plan effort. And based on the
18 contracts that are available to us, the capacity left in
19 those contracts, where we are as far as the life span of
20 a particular contract, we need someone who can come back
21 to us and produce a Community Relations Plan in a short
22 order.
23 We're looking at a very tight schedule because
24 we have to get this done this summer as soon as
25 possible. So we'll be looking at all those criteria

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1 before we go out and select a firm to prepare the
2 Community Relations Plan.
3 MR. O'CONNELL: I'm really unhappy as I hear
4 about this, as important as I think the Community
5 Relations Plan is, suddenly to hear that there is a big
6 hurry on it. I believe that as far as coming up with a
7 scope of services that the RAB very much needs to be
8 involved in the process of arriving at the scope of
9 services itself.
10 And I think that's by -- the terms of the
11 Federal Facilities Agreement says we have a key and
12 pivotal role in community involvement and shaping
13 community involvement. And to say that you're going to
14 get it out for bid at the end of April, and we have
15 never even been made part of that process, I strong -- I
16 personally object very strongly.
17 You need to take this in a -- I don't want to
18 slow the process down unduly, but I really want to see
19 RAB members and the community involved in this. I want
20 to see our city have an opportunity to get involved in
21 this because they know about this community. I want Bay
22 Point to have an opportunity to get involved in this.
23 This is obscene failure in the community
24 relations plan. The 1996 one was, as I have said, many
25 times demonstrably ineffective, and we do not want to

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1 repeat that process.
2 And I also would like to again voice my concern
3 that we get a professional marketing communications firm
4 to put together a community relations plan for us, and
5 it not be done in the shortest possible time frame.
6 That we do it in a deliberate manner and a very high
7 quality community relations plan be put together.
8 MR. McLEOD: I would certainly second that with
9 both hands.
10 MR. O'CONNELL: I would welcome -- I think it
11 would be appropriate for other community members to
12 comment if they agree so it gets entered into public
13 record.
14 MS. TANASESCU: I absolutely agree. It's
15 something I've been concerned about from the beginning.
16 MR. GRIFFITH: We actually did start that
17 process by brainstorming the ideas that one night, and I
18 think we did even talk about following up on that
19 brainstorming process and trying to solidify some ideas
20 further.
21 So I think we've already made a good start on
22 that. So I think we should just put it on one of the
23 upcoming agendas to continue that a little further. So
24 I think we already have -- I think it's good that we
25 have sort of a participatory process and continue it a

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1 little further. So I think we're on the right track
2 already.
3 MR. RIVERA: If I hear you correctly, I
4 understand that it's -- that it's essentially two items.
5 I'm sorry to break it down, to simplify it so much, but
6 I understand you want to see the scope of work, and you
7 want to review the scope of work; and item 2 is you want
8 to be involved in the development of the scope of work.
9 Is that correct? Because you will be involved in the
10 Community Relations Plan effort.

11 MR. O'CONNELL: I wouldn't mind so much if a
12 professional came up with the draft scope of services
13 and presented it for a comment and perhaps approval, but
14 I don't want to see the scope of services go out before
15 and -- before we get a chance to review it.

16 MR. GRIFFITH: I had a question. Will the
17 consultants be asked to design a scope of services based
18 on some of the materials that we discussed already, or
19 some of the issues and ideas that we talked about? Is
20 that part of the plan?

21 MR. RIVERA: That's definitely part of the --
22 the plan. We'll also be asking the contractor to look
23 at the criteria for develop- -- form items that must
24 be -- must be included in a Community Relations Plan.
25 We have to be in full compliance with the requirements

1 comments.
2 Bill.
3 MR. HOWELL: Yes, I came -- you know, I went on
4 the site tour, and I want to thank you folks for
5 inviting me. And I also picked -- I was here at the
6 March 4th RAB meeting, picked up an information packet.
7 And I looked over that information, and I prepared a
8 little preliminary comments, suggestions,
9 recommendations.

10 With your permission I would like to hand it
11 out to the RAB members, if that's permissible. It's an
12 informal letter, sort of.

13 MR. O'CONNELL: Please do.

14 MR. PONTEMAYOR: That's fine.

15 MR. HOWELL: I'm sorry.

16 MR. PONTEMAYOR: That's fine.

17 MR. HOWELL: I just want get into it just for
18 review and consideration. And I -- actually, I have
19 additional copies for the public, if that's not a
20 problem.

21 And it's not a full report. It doesn't have
22 figures. It refers to figures you received in the
23 informational packets you'll have to go find. This is
24 just an informal letter. It's the best I could do under
25 the time frame I had.

1 of the -- of the guidance provided to us by U.S. EPA.
2 So we will look at all those elements.

3 MR. HOWELL: On one hand you guys are worried
4 about time, getting things moving, and you want a
5 professional. Mr. Saunders, Lee Saunders, gave the talk
6 about the RAB responsibilities. Saunders,
7 Mr. Saunders -- anyway, he mentioned from Hunters Point
8 they have actually been talking with some East Coast PR
9 firms because they have significant communication
10 problems.

11 And you may not -- you may save time by not
12 reinventing the wheel, but by perhaps talking to the
13 Navy to use your contacts to reach him. He may actually
14 have some -- he may have already discussed this concept
15 with them and, you know, fast-track it a little bit.

16 MR. O'CONNELL: That would be good.

17 MR. HOWELL: It's just a thought.

18 MR. PONTEMAYOR: Okay. Thanks.

19 Future meeting minutes.

20 I have to make sure that each RAB member gets a
21 copy of the minutes with sufficient time before --
22 before the meeting so that they will be meaningful
23 discussions and review of the discussions. So I will
24 take that action for future meetings.

25 Next item is public comment. If there are any

1 MR. O'CONNELL: Thank you, Bill.

2 MR. PONTEMAYOR: I appreciate the input.

3 MR. HOWELL: I have additional copies, if there
4 is RAB members that have left, if they would like this.

5 MR. McLEOD: I'll take one.

6 MR. HOWELL: I'm sorry?

7 MR. McLEOD: One, please.

8 MR. HOWELL: Just trying to be helpful,
9 actually. Just thoughts from -- I had from my
10 experience that might be helpful, and maybe not.

11 MR. PONTEMAYOR: Thank you.

12 Last item is agenda planning for next meeting.

13 I have to make an announcement that the
14 regional office is having an environmental summit. I'll
15 be away for the first week of May, so the only chance I
16 have in contributing to the agenda will be this week.
17 So I guess I'll get together with the community co-chair
18 to provide some parts of the agenda, and then towards
19 the first of the week of May that I'm absent, perhaps it
20 can be finalized and then provided to the members.

21 MR. O'CONNELL: When you say "the first week of
22 May," does that mean like May 1st?

23 MR. PONTEMAYOR: April 29 to May 4th.

24 MR. O'CONNELL: Okay.

25 MR. PONTEMAYOR: So I need to work with you to

1 more or less develop the agenda for May 6.
2 MR. O'CONNELL: Okay. Well, we can get that
3 done starting Wednesday.
4 MR. PONTEMAYOR: Wednesday [have an eight-hour
5 refresher for HAZWOPER.
6 MR. O'CONNELL: Or Thursday. Later this week.
7 MR. PONTEMAYOR: Are we meeting on Thursday?
8 MR. O'CONNELL: Thursday.
9 MR. PONTEMAYOR: Friday?
10 MR. O'CONNELL: Friday.
11 MR. PONTEMAYOR: Very good.
12 MR. O'CONNELL: We need to talk about what --
13 what the committee would like to have on the agenda.
14 MR. PONTEMAYOR: Very good. We appreciate your
15 attendance.
16 And I guess we stand adjourned. Thank you.
17 (Proceedings adjourned at 9:45 p.m.)
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1 CERTIFICATE OF REPORTER

2
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4 Reporter of the State of California, do hereby certify
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6 stenographically to the best of my ability at the time
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8 IN WITNESS WHEREOF I have hereunto set my hand
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<p>-1-</p> <p>'01 [1] 70:14 '20s [1] 43:25 '50s [2] 27:7 31:6 '60s [1] 27:8 '70s [3] 22:9 27:8 28:7 '80s [3] 24:19 29:3 36:5 '89 [1] 70:19 '90s [1] 36:6 '94 [1] 60:12 '95 [1] 60:12 '96 [2] 35:12 60:9</p> <hr/> <p>-.-</p> <p>. [1] 5:10</p> <hr/> <p>-1-</p> <p>1 [31] 16:12 17:9 18:6 21:13,14 25:17,19 26:22 27:3 39:14 41:3,5,15 52:5,6,7,16 53:22 54:5 55:17 56:3 57:8,9 58:20 60:22 62:21 64:19 65:15 65:17 75:12 87:21 10,000 [2] 60:7 77:9 100 [1] 89:25 10372 [2] 1:19 114:13 109 [1] 1:16 11 [1] 95:6 11th [3] 95:7,12 98:21 12 [1] 26:1 120 [1] 39:23 12th [1] 98:23 13 [4] 20:17 26:2,3 61:1 141 [1] 61:2 15 [1] 31:17 150 [1] 90:13 16th [1] 9:14 17th [2] 13:2 87:16 18 [1] 95:6 18th [8] 18:5 95:9,12,13 95:17 98:1,2,18 19 [1] 38:5 1910 [1] 23:6 1976 [2] 31:4,6 1983 [1] 24:17 1989 [1] 24:22 1991 [1] 36:19 1993 [1] 25:1 1995 [2] 35:11 36:20 1996 [4] 25:2 36:16 88:19 107:24 1999 [2] 36:20,22 19th [1] 8:17 1st [8] 5:16 16:10 17:17 17:18,20,21 98:21 112:22</p>	<p>-2-</p> <p>2 [12] 21:14,14 26:6,6 39:14 44:22 46:7 63:8 63:10 67:3 87:21 109:7 20 [5] 9:3 31:8,17 39:23 100:11 200 [2] 27:25 96:20 200-year [1] 89:25 2000 [1] 36:21 2001 [2] 34:4 87:16 2002 [4] 1:14 3 1 9:21,24 2003 [1] 11:8 20th [1] 100:6 22 [2] 1:14 3:1 24th [1] 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