RESTORATION ADVISORY BOARD

Martinez, California

Meeting of September 8, 2003

Reporter's Transcript

NICCOLI REPORTING (650) 573-9339

NAVAL WEAPONS STATION

SEAL BEACH DETACHMENT, CONCORD

RESTORATION ADVISORY BOARD

REPORTER'S TRANSCRIPT OF MEETING

September 8, 2003

Martinez Sheriff's Station
1980 Muir Road
Martinez, California

Reported by Janine P. Gamble, RPR, C.S.R. No. 10372

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CERTIFIED SHORTHAND REPORTERS SERVING THE BAY AREA

PARTICIPANTS

COCHAIRS: MARGARET WALLERSTEIN - United States Navy
MARY LOUISE WILLIAMS - Concord resident

RAB MEMBERS:

CHRISTOPHER BOYER - Martinez resident
DAVID L. GRIFFITH - City of Concord representative
LAURENT MEILLIER - Regional Water Quality Control Board
MARIO MENESINI - Walnut Creek resident
RAYMOND O'BRIEN - Bay Point resident
PHILLIP RAMSEY - U.S. Environmental Protection Agency (EPA)
IGOR O. SKAREDOFF - Martinez resident

OTHER ATTENDEES

DAVID BAILLIE - U.S. Navy
RAYMOND BIENERT - Tetra Tech EM Inc.
SHANNA COLLIE - Tetra Tech EM Inc.
DAVID COOPER - U.S. Environmental Protection Agency (EPA)
BETH J. BYRNE - Concord citizen
HARRY M. BYRNE - Concord citizen
JOANNA CANEPA - Tetra Tech EM Inc.
CAROLYN HUNTER - Tetra Tech EM Inc.
MICHELLE HURST - U.S. Navy
STEPHEN F. TYAHLA - Department of the Navy

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MARTINEZ, CALIFORNIA, MONDAY, SEPTEMBER 8, 2003
6:40 P.M.
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MS. WILLIAMS: May I call this meeting to order, please.

Okay. I'd like to call the meeting to order of the Concord Naval Weapons Station, Seal Beach Detachment Restoration Advisory Board.

This is September 8th, and it is 6:40 p.m.

Are there any members of the public here?

MS. BYRNE: Honorary members.

MS. WILLIAMS: I gave them that title.

Okay. Then it's --

I'd just like to welcome everybody.

It's your turn.

MS. WALLERSTEIN: Okay. Let's see. We need to introduce.

MS. WILLIAMS: Yeah, we do that every time.

MS. WALLERSTEIN: All right. Are you --

You want to start?

MR. TYAHLA: Sure. Steve Tyahla, Navy lead RPM for Naval Weapons Station Concord.

MS. WALLERSTEIN: Margaret Wallerstein, Navy RAB cochair.

MS. WILLIAMS: Mary Lou Williams, community

1 cochair.
2 MR. RAMSEY: Good evening. I'm Phillip Ramsey
3 with the United States Environmental Protection Agency.
4 MR. SKAREDOFF: I'm Igor Skaredoff, Martinez
5 resident.
6 MR. BOYER: Chris Boyer, Martinez resident.
7 MS. CANEPA: Joanna Canepa with Tetra Tech.
8 MR. BYRNE: Harry Byrne, Concord resident.
9 MS. BYRNE: Beth Byrne, same.
10 MS. HURST: Michelle Hurst, Navy.
11 MR. BAILLIE: Dave Baillie, Environmental
12 Manager Naval Weapons Station Seal Beach.
13 MR. BIENERT: Ray Bienert with Tetra Tech.
14 MS. COLLIE: Shanna Collie with Tetra Tech.
15 MS. WALLERSTEIN: Okay. Thank you everyone.
16 Are there any comments from the public?
17 (No verbal response elicited.)
18 MS. WALLERSTEIN: Okay. Then the next step is
19 approval of the agenda of July 14th.
20 Does anybody have any questions, discussions?
21 Do I have a motion to approve the minutes as
22 is?
23 MR. SKAREDOFF: I'll move.
24 MS. WILLIAMS: I second.
25 MS. WALLERSTEIN: Everybody in favor?

1 THE BOARD: Aye.
2 MS. WALLERSTEIN: Opposed? No.
3 Okay. Then that moves us to the RAB -- that
4 moves us to unresolved business. I guess usually at
5 this point we go over the action items list. I'm going
6 to move two of them to a little bit later in the
7 meeting. Action item 1 was Tetra Tech will provide RAB
8 training, which we're doing tonight, obviously.
9 The community RAB members will send their input
10 on Fact Sheet topics to Steve -- Steve Tyahla and
11 Margaret Wallerstein.
12 Does everybody know that we put out Fact Sheets
13 about the IR Program?
14 And so far I've received two comments. And --
15 I think one from you, Chris.
16 And I guess I was going to ask if anybody had
17 any that they wanted to hand in tonight, or talk to me
18 after the meeting, I'd be happy to write them down and
19 take them into consideration.
20 Okay. Then there was a request for a
21 presentation on the Natural Resources Program. We're
22 going to discuss that a little bit later in the agenda,
23 and also the Pete Strauss and Patrick Lynch action
24 items.
25 And then I guess that's it. The other thing is

1 to revisit the -- the meeting location.
2 Does anybody have any questions or comments
3 about that?
4 (No audible response elicited.)
5 MS. WALLERSTEIN: No. Okay.
6 So the next item on the agenda is the RAB
7 training session. The agenda's a little bit tight
8 tonight. We did move quickly through that, but we got a
9 late start.
10 MR. SKAREDOFF: Did we skip the transcript?
11 MS. WALLERSTEIN: No; we passed that.
12 MR. SKAREDOFF: We did?
13 MS. WALLERSTEIN: Yeah.
14 MS. WILLIAMS: I seconded it.
15 MR. SKAREDOFF: I made the motion to accept the
16 minutes, to accept the agenda that we had today.
17 MS. WILLIAMS: Oh.
18 MS. WALLERSTEIN: I'm sorry. I said "minutes"
19 instead of "transcript." I was referring to the
20 transcript.
21 MR. SKAREDOFF: Okay. I thought we were doing
22 the agenda approval, which was -- my motion was about on
23 the first item.
24 MS. WALLERSTEIN: Okay. I'm sorry. I think I
25 got a little out of order.

1 MR. SKAREDOFF: I'm okay with that. I just
2 thought that's what we did. That's what I motioned on.
3 MS. WALLERSTEIN: I need a little more practice
4 at this.
5 MR. SKAREDOFF: So I don't have a problem
6 with --
7 MR. MENESINI: A very, very contentious problem
8 here, whether or not to approve the minutes.
9 MR. SKAREDOFF: So I thought that's what we
10 just agreed on. So I thought we were supposed to then
11 decide whether we agreed on the transcript or not.
12 MS. WALLERSTEIN: Okay. You want to redo the
13 motion on the transcript?
14 MR. SKAREDOFF: I did not move anything on the
15 transcript. What I moved on was the agenda approval.
16 MS. WALLERSTEIN: Oh, okay.
17 MR. SKAREDOFF: So we haven't addressed the
18 transcript yet.
19 MS. WALLERSTEIN: Okay.
20 MR. SKAREDOFF: Just so that --
21 Just so that everything reflects whether we
22 covered everything.
23 MS. WALLERSTEIN: Okay. So we have the agenda
24 approved?
25 MR. SKAREDOFF: Yes.

1 MS. WALLERSTEIN: Okay. So, is there any
2 correction on the transcript?
3 (No audible response elicited.)
4 MS. WALLERSTEIN: Anybody have a motion to
5 approve the transcript?
6 MR. SKAREDOFF: I will move that we approve the
7 transcript.
8 MR. BOYER: I'll second.
9 MS. WALLERSTEIN: Everybody in favor?
10 THE BOARD: Aye.
11 MS. WALLERSTEIN: Okay. So then we can move on
12 to the RAB training session. Sorry about that.
13 So we have -- tonight's training session is
14 Understanding CERCLA Human Health and Ecological Risk
15 Assessment presented by Dr. Shanna Collie and
16 Dr. Raymond Bienert, both with Tetra Tech.
17 And I'll ask Joanna to do the further
18 introductions since she's a little more familiar with
19 their backgrounds.
20 MS. CANEPA: Dr. Collie is a Ph.D., and her
21 background is in toxicology, and she's done risk
22 assessments throughout the country. One of the Concord
23 risk assessments that she worked on is -- is the Site 22
24 Human Health Risk Assessment. She also has worked on
25 many Bay Area installations, including Mare Island,

1 Hunters Point, Alameda. And we're happy to have her
2 here tonight.
3 Dr. Ray Bienert is going to be giving the
4 ecologic risk assessment portion of the training. He --
5 his background is in biology and environmental
6 statistics, study design. And he was the task lead for
7 the Baseline Ecological Risk Assessment that was done as
8 part of the five-year review assessment for the
9 Litigation Area sites.
10 So Shanna will start off with the first portion
11 of the presentation; we're going to have about a
12 ten-minute break for questions and answers, and then Ray
13 will begin for his portion of the presentation.
14 So with that, I'll hand it off to Shanna
15 Collie.
16 MS. COLLIE: Thank you.
17 Welcome to today's Restoration Advisory Board
18 meeting where on behalf of the U.S. Department of Navy
19 and in consultation with US EPA Region 9 of California,
20 Department of Toxic Substances Control, Tetra Tech is
21 presenting the nuts and bolts of CERCLA Ecological and
22 Human Health Risk Assessment.
23 And, as we discussed, we'll have a
24 question-and-answer period later on, but one of the
25 things I wanted to let you know upfront is that this is

1 just the first of three planned training sessions that
2 the Navy and the RAB can have together this fall.
3 There will be two more more detailed segments
4 on toxicology and fate and transport. So when those
5 topics come up today, we're just going to give a quick
6 overview, and those will be discussed in more detail at
7 a later date.
8 What you see on the board looks familiar to you
9 because it's the same diagram that you've probably seen
10 at other RAB meetings. It's just the overview of how
11 the risk assessment might fit into the whole CERCLA
12 process.
13 Basically if we -- if we look at this diagram
14 showing where we are and how far we have to go, risk
15 assessment is this little tiny piece right here that is
16 first -- I guess takes center stage after the remedial
17 investigation. Once we collect some data, that's the
18 first time you'll hear results of a risk assessment. It
19 will be an appendix or a chapter to the RI report.
20 But what's important to realize is that the
21 results of the risk assessment are food for the rest of
22 the steps in the CERCLA process, the feasibility study,
23 deciding what needs to be done, if anything; the
24 remedial actions; and eventually, as Joanna mentioned,
25 sometimes in a five-year review risk assessment comes

1 back into play to make sure that the risks we thought we
2 had have been controlled.
3 So we might ask why do we need risk assessment?
4 What is it used for? Well, the easy answer is that we
5 have to do it. It satisfies a regulatory requirement.
6 But I like to think the best reason is that it
7 increases the site understanding and achieves better
8 communication with all the interested parties. If we're
9 all talking about the same information in a -- a two-way
10 dialogue, it helps for better decisions, a defensible
11 basis for any actions or no action at a site. It
12 provides objective and quantitative methods for
13 comparing the remedial actions, and it focuses our
14 resources on the real problems. It optimizes our
15 dollars, since the budget is not unlimited.
16 An important role is played by the risk
17 managers. It's a limitation of the risk assessment that
18 we don't manage the risks in a risk assessment; we only
19 describe what they are. We pass on that information for
20 the risk managers to make the ultimate judgment of
21 whether risks are acceptable or not.
22 For you all, you have, of course, the Navy as
23 the lead agency with its partners, EPA, DTSC, and the
24 Water Board, but there's all these influences that feed
25 into the risk management process. An important one is,

1 obviously, the RAB itself as a conduit for community
2 comments and input.
3 And so the first thing to consider in the risk
4 assessment process is the risk paradigm, that being
5 there has to be a completed exposure pathway. An
6 exposure pathway occurs when there is some kind of
7 contaminant in a site media.
8 And here an example of soil and air are given
9 that actually makes its way to a point of exposure, to a
10 receptor. Here it's not shown, but it would be a
11 person -- we're talking about human health right now --
12 who might consume food products that were grown in soil
13 that was contaminated by some kind of a release.
14 So these arrows represent what is a completed
15 risk pathway. The contamination has to leave the soil,
16 it has to be taken up into vegetation, it has to make it
17 into the food or the produce, and then we have to be
18 here to eat it.
19 This is just one example of one type of pathway
20 that we might consider. There's many pathways. And if
21 any of these steps aren't complete -- for example, if no
22 one grows produce in the soil, then the pathway is not
23 complete. If we don't eat the produce from that soil,
24 it's not complete.
25 What we typically try to include is a

1 conceptual site model. A conceptual model can take many
2 different forms. Sometimes you'll see it as a picture,
3 more like the slide that we just showed, or we might see
4 it like this.
5 And this I know is very tiny. You do have this
6 same thing in a handout that was at the door when you
7 came in.
8 This is actually from the Supplemental RI for
9 Site 21 at Concord.
10 MS. CANEPA: 22.
11 MS. COLLIE: I'm sorry, 22, and it -- it
12 depicts the movement of contamination, what a thought
13 release mechanism is into a secondary source or a medium
14 that's then taken up by some kind of exposure route. By
15 the time we get over to the right side of the diagram,
16 these are where our receptors are.
17 And so, for example, we evaluate different
18 types of human beings, a worker-type scenario, a
19 residential scenario, and we indicate by different
20 symbols whether a pathway was quantitatively evaluated
21 as complete. And that's a solid circle or an open
22 circle indicating either the pathway wasn't complete or
23 it wasn't significant.
24 This type of a conceptual model is important
25 for the planning process as the initial remedial

1 investigation knows to collect specific data to evaluate
2 all of these pathways that we discussed. If we know,
3 for example, that we have volatile organics, we make
4 sure that we collect volatile organics in soil or
5 groundwater and are able to evaluate an inhalation
6 pathway. Things volatilize, we want to assess whether
7 humans could be exposed by breathing those in.
8 Since football season is started, we decided we
9 had to have the football graphic up here. But what the
10 point is is that we have a goal for everything. Risk
11 assessment is not unique. We do have a goal that we're
12 going to be measured with at the end of the risk
13 assessment process.
14 The National Contingency Plan is what gives
15 Superfund a framework for measuring risks for human
16 health to determine whether it's acceptable or not.
17 What is presented in the National Contingency Plan is a
18 cancer risk management range. We're going to talk about
19 the details of it in a moment.
20 And then there is a management decision related
21 to all chemicals, even chemicals that are not
22 carcinogens that might be noncancer hazards or system
23 toxicants. There are chemicals that pose both cancer
24 and noncancer risks. And an example from Concord is
25 arsenic. It has both a cancer effect and a noncancer

1 effect. So we have to measure both in the risk
2 assessment.
3 This is the risk management range that we
4 talked about that comes from the National Contingency
5 Plan. Basically on the low end where no action would be
6 required is about a one in a million excess lifetime
7 cancer risk.
8 And what that is, even though that's a long
9 word, you might see it in a report, what it represents
10 is that extra cancer. One person out of a million. If
11 a million were exposed at the same level, that because
12 of the site contamination at the concentration we're
13 measuring they could contract cancer.
14 This is a prediction. It's not necessarily
15 going to be the case, but that's the idea behind cancer
16 risk.
17 The upper end of that risk management range the
18 NCP provides is one in ten thousand. If we know that
19 our calculations show that up to one in ten thousand
20 might be at risk from an excess cancer, then it kind of
21 crosses a bright line where an action is required.
22 When things fall within this cancer risk
23 management range, some action may be required. It's up
24 to the risk managers to decide what or if that action
25 will be required.

1 And if we think back to our conceptual model,
2 that action may be as simple as cutting off the pathway.
3 If no exposure can occur, then there is no risk.
4 Sometimes things that could be used as a way of
5 cutting off that pathway is, for example, a prohibition
6 against installing drinking water wells if you know you
7 have a contaminated water table. Those would be
8 considered institutional controls and are an action.
9 Noncancer effects, as we discussed, are just a
10 little bit different, and we'll talk about why in a
11 minute. But there is no real risk management range.
12 It's more of a bright line. There is what we call an
13 index, and it's a hazard index of one. The method that
14 it's calculated is a little bit different than some of
15 the others, and that's why we'll get into this next
16 slide here.
17 This is the only equation we're going to toss
18 up there tonight because this is just a brief overview.
19 We only have 30 minutes to go through both tonight. So
20 we'll take lots of questions, and we'll maybe do an
21 example later, if we are interested.
22 But essentially this is showing you why the
23 two, cancer and noncancer, are different. We always
24 have to be interested in our intake. This is our dose,
25 or what we project, we estimate, that a person brings

1 into their body. The burden to their body each day or
2 unit of time. For cancer risk, it's that intake times a
3 toxicity value. It's a measure of toxicity for the
4 chemical that we're interested in.
5 And then for cancer, these are all added up.
6 Everything that we know is a human cancer or is a
7 probable or possible human carcinogen, those are all
8 added together as if we know they -- they can definitely
9 cause a cancer.
10 The difference between a noncancer and a cancer
11 risk is that we don't multiply here, instead we're still
12 calculating that same intake. We figure out how much
13 we're being exposed, but we divide by an acceptable
14 reference dose. This is the dose that won't end up in
15 some kind of noncancer harm to us.
16 So based on the last slide, we probably wonder,
17 well, what is the intake? How do we figure out what the
18 intake is? Several things go into intake.
19 Obviously, there is -- if you think about how
20 much you're exposed to, you have to then also think
21 about the common things of exposure.
22 Duration, that's how long are you exposed? Do
23 you live somewhere for 30 years with contamination, or
24 do you only go there one time ever? The frequency, how
25 many days out of a year might you go, or how many hours

1 out of the day might you go?
2 The contact rate, this is different for each
3 pathway, but still there is always a contact rate in the
4 equation, either how much you drink, how much you
5 accidentally eat, how much you breath in, how much you
6 touch over some unit time.
7 And then averaging time is another common
8 component for all of the pathways. Each pathway is just
9 a little bit different, the equation's just a little bit
10 different because, as you can imagine, we're taking into
11 account how much is going through our skin or how much
12 we're breathing in or how much we're drinking. It might
13 be different. But the things that are the same are
14 listed here.
15 Averaging time, we're allowed to consider that
16 once we've had an exposure, we have our entire lifetime
17 for the opportunity for a cancer to show up, but
18 noncancer effects are generally duration linked. We
19 don't expect to have some lagging effect from a
20 noncarcinogen. Body weight is another one. It's the
21 same in all calculations depending on the receptor.
22 The most important thing, the key to this whole
23 exposure assessment, is the exposure point
24 concentration. This is the concentration that is
25 estimated at the point of exposure. And that point of

1 exposure may differ depending on if you're a worker at
2 the site, or if you're a child -- future child resident
3 at this site, or someone off-site. So your exposure
4 point may differ depending on your location.
5 The exposure point concentration is typically a
6 protective estimate of the average site concentration.
7 It's not just the average, but it's a statistical upper
8 bound to show that we're making sure that we are
9 appropriately assessing the site risk.
10 Okay. Back to the goal. If we're being
11 measured against that acceptable risk range, the risk
12 managers take into account a few different things when
13 they're doing that assessment. A couple of things that
14 go into the consideration at the time the risk manager
15 makes his decision is looking at background.
16 Some contaminants, for example, metals,
17 including arsenic, are naturally occurring in some soils
18 and rocks. So nationwide -- you know, worldwide we have
19 some background exposure to these inorganics. But, as
20 we've just discussed, they do have noncancer or cancer
21 effects. So, that is taken into account during the risk
22 management phase.
23 And total risk is another concept of taking
24 into account, beyond just inorganic, naturally occurring
25 metals. We might have, for example, anthropogenic or

1 man-made metals, such as lead, that are released in our
2 air.
3 And some of the tools that we use to look at
4 risk assessment, like the California Model for Looking
5 At Lead Risks, do incorporate an assumption regarding
6 the amount of lead in our air, and the assumption of how
7 much lead is already in our pipes because of lead pipes,
8 such that we're not forgetting about the risks that are
9 hitting our body at the same time as these other risks
10 are.
11 So to put together the nuts and bolts of human
12 health risk assessment we need some tools. The tools of
13 our trade are generally the guidance from Risk
14 Assessment Guidance for Superfund. It's a series that's
15 available for you on the Internet. It came out back in
16 1989 with Part A.
17 And this little diagram here might look
18 familiar. Our data collection and evaluation process
19 starts during the remedial investigation. We consider
20 that data and do the statistics on it and things after
21 the data is collected, and then in conjunction with the
22 exposure assessment, which we just touched on, we
23 consider things like contact rate and the exposure point
24 concentration, combine it with the toxicity and effects
25 assessment, which we're not going into detail today

1 because you're going to get another training on that,
2 and end up with a risk characterization.
3 Those are the risk findings presented as a
4 cancer risk in the scientific notation you saw just a
5 moment ago or the uncertainty evaluation that follows
6 on. And that might mention some of the things that the
7 risk managers are interested in.
8 To add to the transparency, in risk assessment
9 Superfund guidance also includes Part D, which is a
10 standard reporting tool. It makes it so that every site
11 that follows this guidance can have the same format for
12 their exposure point concentration, their statistics,
13 their exposure parameters, you know, what the contact
14 rate was, what the ingestion rate was, all of the
15 assumptions that went into risk assessment so it's more
16 transparent for the public and the decision makers.
17 More guidance keeps coming out almost every day.
18 Part E was Dermal Guidance, discussing
19 specifically the skin pathway. That was modified since
20 1992, but it's still a draft. And we do have a handout
21 with some suggested reading for everybody in their
22 handout that has all of the Internet links and a lot of
23 the places where you can go.
24 There is not only RAGS guidance, but there is
25 state guidance and Navy guidance that interprets and

1 expands upon these different areas for day-to-day
2 application.
3 So with that, did we want to take a quick
4 five-minute break and take clarification comments on
5 human health first?
6 MS. WALLERSTEIN: Yeah, we were going to do
7 that.
8 We wanted to limit the questions to
9 clarification questions, if you didn't understand some
10 of the, you know, scientific terms or whatever, and then
11 the substantive questions after Dr. Bienert.
12 Does anybody have any questions at this point?
13 (No audible response elicited.)
14 MS. WALLERSTEIN: We do have time for Q and A
15 at the end too, but in case we had questions about this.
16 One of the things I guess I forget to
17 mention --
18 MR. SKAREDOFF: Sorry.
19 MS. WALLERSTEIN: Oh, go ahead.
20 MR. SKAREDOFF: I was trying to grapple with
21 your distinction between carcinogenic and
22 noncarcinogenic, and I wanted to see if I got it close.
23 In te carcinogenic one basically there is no
24 time constraint; it's just exposure over a lifetime.
25 MS. COLLIE: Over your lifetime.

1 MR. SKAREDOFF: And the noncarcinogenic is a
2 specific exposure, and then I guess there is a specific
3 period of time after the exposure to where the agent can
4 have an effect, and then it's presumably gone from the
5 body, or what?
6 MS. COLLIE: Well, what the averaging time is
7 for both of them are the same in that your exposure
8 occurs for whatever you decide your duration is.
9 So, for example, if you say I live at the site,
10 I'm going to be exposed for 30 years because I want to
11 live here 30 years, that's your duration. And so for
12 looking at noncancer effects, it would assume that I
13 would only be at risk for noncancer effects during those
14 30 years when I live there.
15 MR. SKAREDOFF: If you moved away, you're no
16 longer at risk?
17 MS. COLLIE: Right, from the noncancer, because
18 it's something that would have happened to you during
19 the exposure.
20 MR. SKAREDOFF: I guess the assumption is that
21 it doesn't remain in the body.
22 MS. COLLIE: Right. Right.
23 The difference that you did pick up on is for
24 cancer effects, even though you might only be exposed to
25 it 30 years, there is still another 40 years of -- I

1 guess in tox terms they call it latency. There is still
2 a chance that you could develop a cancer at some point
3 in your lifetime. So, that's part of it.
4 And depending on -- you know, it could be as
5 small as only one year. And, obviously, the less
6 exposure you have, the lower your risk is going to be as
7 well. But it's -- it's just a method of averaging over
8 a certain period.
9 MR. SKAREDOFF: And I had one more question. I
10 think it had to do with the -- you talked about the
11 goals of acceptable risk, that slide there.
12 You mentioned total risk for neighborhood
13 exposures and also -- I kind of guess it surfaced when
14 you were first talking about human health risks in
15 general. How do you take into account things like the
16 accumulation of different kinds of exposures; and then,
17 also, how maybe one exposure affects your susceptibility
18 to another, certain things make you more vulnerable?
19 You know, is that factored in in some way?
20 MS. COLLIE: It's factored in in several ways,
21 I guess. One is for the tox training, the toxicity
22 assessment training that will be coming up, when they
23 discuss how the toxicity values themselves are derived,
24 that's the cancer potency values and the safe noncancer
25 reference doses, those are taken into -- it's taken into

1 account at that point by application of uncertainty
2 factors that allow for individual variability. Like
3 between me and you there might be -- one of us might be
4 ten times more susceptible than the other, for example.
5 MR. SKAREDOFF: I guess I wasn't really so much
6 focusing on that as if there was, say, exposure to lead,
7 if that also made you more vulnerable to negative
8 effects from exposure to something else.
9 MS. COLLIE: Right.
10 MR. SKAREDOFF: Is there some way that that's
11 taken into account?
12 MS. COLLIE: Yes. Another way is in the hazard
13 index. I guess lead's not a really, really good
14 example. It's done different.
15 But let's pretend two other things that, say,
16 both affect our central nervous system. When we do the
17 hazard index, it's cumulative especially for a target
18 organ or target effect in your body.
19 So if we know at one of our sites we're both --
20 we're exposed to two chemicals that both affect our
21 central nervous system, those are added together. And
22 so by that then we can only have half as much effect
23 from each of them, for example, just with two. Each --
24 each organ in our body can have that same target organ
25 specific hazard index, so we make sure we're not

1 overloading our liver, we're not overloading our
2 kidneys, something like that. That's one way.
3 The tricky way is this way, when talking about
4 total risk, looking at your neighborhood risks, because
5 sometimes we know those impacts you're getting from
6 off-site or from other places; sometimes we don't.
7 MR. RAMSEY: But I think, Igor -- I think what
8 you're asking, I'm not sure, but the answer is in terms
9 of like how one can actually have a multiplying effect,
10 you know, these multiple contaminants. I don't think
11 that's considered. It's more of an additive. They add
12 the numbers up. But if they have actually some kind
13 of -- actually increased the rate, they're not doing
14 individual tox- -- toxicological assessment on multiple
15 contaminants.
16 So, that's part of the uncertainty about some
17 of these risk assessments. So, it's an additive but not
18 a -- multiplicative kind of effects would not be
19 considered.
20 MR. SKAREDOFF: I was thinking about in some
21 cases you may lower the threshold at which something may
22 actually affect you if you had been, you know, exposed
23 to something else.
24 MS. COLLIE: True.
25 And EPA has worked a little bit on some

1 mixtures guidance that's out there to actually look at
2 the complex interactions. And I don't know if maybe the
3 tox seminar will hit on that some, but that's not really
4 made it to prime time yet in terms of how we actually
5 calculate risks. So far the default assumption is
6 additivity.
7 MR. SKAREDOFF: So your neighborhood being --
8 for instance, in a neighborhood there is already a
9 certain level of stuff, and this would be added to that
10 when you're talking about background, but then you would
11 subtract out the background, or how would you handle
12 that kind of situation?
13 MS. COLLIE: That's kind of the tricky gray
14 area. And I don't know -- you guys can jump in.
15 But that's one of the ways of looking at it is
16 to say, well, a site-specific background. You know, you
17 wouldn't want to pull background from something that's
18 either already contaminated or contaminated by someone
19 else, but a site-specific background. Yeah, in theory
20 you could say, well, this is the level we're already
21 exposed to.
22 Sometimes risk managers don't necessarily want
23 to subtract it out, rather they would rather consider
24 that in the back of their minds as they're setting risk
25 goals to make sure that, like you said, we're not

1 overwhelming ourselves in our community by things that
2 are --
3 MR. SKAREDOFF: Yeah, I was thinking, you know,
4 if it's this far -- close to the threshold and this puts
5 you over the top.
6 MS. COLLIE: Right.
7 MR. SKAREDOFF: How do you avoid that?
8 MS. COLLIE: That's a tricky risk management
9 decision. That's -- that's one of the hard choices,
10 especially with inorganics. Even the contaminants we're
11 talking about now. Like with arsenic, sometimes
12 backfill and material you bring in that's clean, EPA
13 places it, and it's got just as much as you just took
14 away. So, it's one of those tricky things to consider.
15 MR. RAMSEY: EPA doesn't regulate fill. Don't
16 blame me. It's unregulated.
17 MR. MENESINI: One of the things that strikes
18 me in this whole discussion in what I call these
19 incomprehensibles is the fact that, you know, you could
20 have a charge of mercury from the cumulative effect of
21 eating a lot of fish that's got mercury. And, you know,
22 who's to tell this in terms of how a very slight
23 contaminant of mercury would then be the additive
24 tipping of the balance to give you cancer or to give you
25 mercury poisoning in the central nervous system or

1 whatever.
2 MS. COLLIE: I guess mercury is a tough one,
3 but usually there'll be local fish advisories so that --
4 MR. MENESINI: Oh, yeah, there are. We put
5 them up.
6 MS. COLLIE: Right. So they generally provide
7 some guidance to you saying don't eat more than X number
8 of meals per week, things like that.
9 MR. MENESINI: Exactly. Exactly. But I'm just
10 saying the history of a person in terms of what happens
11 here --
12 MS. COLLIE: That's true.
13 MR. MENESINI: -- is very important to the
14 ultimate --
15 MS. COLLIE: It's very important. And,
16 unfortunately, what this process does is it predicts on
17 a big population. You know, we're talking if a million
18 people were all exposed. We're not talking about what
19 your lifestyle might have contributed or what your
20 personal risk is. Unfortunately, there's no real way to
21 predict that exact --
22 MR. MENESINI: Incomprehensible.
23 MS. COLLIE: Exactly. It really is.
24 MR. RAMSEY: That's the study of epidemiology,
25 is it not? You have to look at people's histories and

1 all of these things to understand why they have a
2 current health condition. And that's beyond the scope.
3 MS. COLLIE: And that's an important thing that
4 I forgot to mention, if you all will indulge me. But
5 this excess cancer risk that I'm talking about, this is
6 one person in a million on top of the one out of three
7 of us that's all going to get cancer anyway. It's got
8 nothing to do with our background cancer rate. We
9 all -- some of us will get cancer for some reason that's
10 totally unrelated to environmental contamination.
11 MR. MENESINI: Has a lot to do with the DNA.
12 MS. COLLIE: It certainly does.
13 MS. WALLERSTEIN: We'll have a little bit more
14 time for questions at the end, if we want to move on at
15 this point.
16 MS. COLLIE: We'll let Ray talk, and then we
17 can do more later.
18 MS. WALLERSTEIN: Thank you. That's fine.
19 MR. BIENERT: Okay. Now what we're going to do
20 is switch gears from looking at risk to just one
21 species, a human being, and we're going to look at the
22 Ecological Risk Assessment process where we try to
23 evaluate risk to a wide range of plant animal species.
24 So the first thing we're going to do is we're
25 going to look at the basic question that is addressed in

1 the ERA, which is do chemicals in the environment pose
2 an unacceptable risk to ecological receptors. And in
3 those cases where we find that the risk is unacceptable,
4 then we can use all the information and data from the
5 ERA to address a few other relevant questions, such as
6 what portions of the site warrant remediation, what
7 might the remediation goals be. And in the case in
8 which we're considering remedial alternatives, we need
9 to also ask the question or be assured that any cleanup
10 activities themselves are not going to cause more harm
11 than good.
12 At the bottom of this slide you can see these
13 are three of the many receptors that we've evaluated at
14 different sites at Concord, the mallard, the
15 Black-necked Stilt, and the famous endangered Salt Marsh
16 Harvest Mouse.
17 So all the ERAs that we do are specific for
18 individual sites, but they all follow a standard
19 process. So we look at each individual site as a unique
20 problem or collection of problems, but then we look at
21 site-specific characteristics such as prior operational
22 history, types of contaminants, how they're distributed,
23 how much data is available already from the site, and
24 then we look at the general environmental setting, the
25 ecological resources, types of habitats and species,

1 different kinds of exposure scenarios that might exist.
2 But, again, the underlying ERA framework is the
3 same for all of these site investigations, which brings
4 us to the framework itself. You can see here on the
5 left, this is the eight-step process that EPA has for
6 conducting ERAs, and next to it is the three-tiered
7 approach that the Navy uses.
8 And you can see that both of these frameworks
9 are more or less in parallel. There are a few
10 distinguishing features, for example, the inclusion of
11 the third tier in the Navy's approach which looks at --
12 it's an evaluation of remedial alternatives.
13 This figure is a little bit busy, so you got a
14 copy there in the handout, and you can look through it.
15 And if you have questions, we can also address that
16 during the Q and A.
17 But I did want to bring your attention to one
18 major feature of both of these step systems, or tiered
19 systems, and that is that they're really divided into
20 two major risk assessment components, a screening level,
21 we call it, which is steps one and two in EPA's process,
22 and the first tier is the screening level portion of the
23 Navy's approach.
24 Now, the second major component is what we call
25 the baseline ERA. In the Navy's approach this is tier

1 two, and in the EPA process it's step three through step
2 seven.
3 Now let's take a more closer look at these two
4 major components. We stated the first component is the
5 screening level ecological risk assessment. And this is
6 really much more of a cursory evaluation that uses more
7 conservative assumptions.
8 For example, we always assume in the screening
9 level step that all the plants and animals are exposed
10 to the maximum concentrations that we observe at a site.
11 And in cases where a site does not pass through this
12 initial screen, then we move on to the Baseline ERA
13 where we go out and actually collect more site-specific
14 ecological data. It's really a refinement, and it's an
15 add-on to the screening level assessment.
16 And in the baseline ERA we use more realistic
17 types of assumptions. I said we use very conservative
18 assumptions in the screening step. Well, now we refine
19 this, and we use assumptions that we consider to be a
20 little bit more reasonable or plausible.
21 Okay. Now, again, looking at the screening
22 level step, the screening level step really serves to
23 overestimate exposure and effects. Okay. It is
24 extremely conservative.
25 There are really three major activities that

1 we're trying to accomplish as part of this screen. One
2 is that we want to eliminate chemicals where we don't
3 see that there is a complete exposure pathway or the
4 potential for a pathway to become complete at some
5 specific time under some set of conditions.
6 Okay. Second is that we certainly want to
7 eliminate chemicals where we can clearly show that
8 they're below concentrations that are judged to be safe.
9 Now, probably the most important one is that we
10 then want to retain and focus on those chemicals that we
11 believe to exceed some safe concentration. So the net
12 effect of this process is that we start out with many
13 chemicals, and then through the application of the
14 screening process we end up with a subset of chemicals
15 that we treat as our Chemicals of Potential Concern,
16 COPCs, throughout the remainder of the assessment
17 process.
18 So, what we did, very quickly, is we just
19 looked at this first -- we're calling it the screening
20 level step, that's steps one and two in the EPA's
21 framework, and the first tier in the Navy's approach.
22 And, again, we say, if we don't pass this screen, or
23 there are data gaps, or there is reason to believe that
24 the risk is unacceptable, then we move on to the second
25 tier, this baseline risk assessment, or steps three

1 through seven.
2 Now, the baseline ERA really begins with what
3 we call a problem formulation exercise. And I should
4 point out that a number of the slides that we're going
5 to be looking at now are the fundamentals of the
6 process. These are steps that are really common to both
7 the human health risk assessment and the ERA.
8 So the human health people, they also go
9 through this problem formulation. And we do a lot of
10 the same kinds of things, but, obviously, we're focusing
11 on quite -- quite different receptors.
12 Okay. So, there is a number of things we do
13 during problem formulation. We identify the exposure
14 pathways, the COPCs. We also ask risk questions, and we
15 also address what we call the endpoints of our
16 assessment. And these are terms that we're going to
17 cover in the next few slides.
18 But really the most important activity of the
19 problem formulation that really kind of ties everything
20 together is the development of the conceptual site
21 model. But, again, the real purpose of the problem
22 formulation is to focus the ERA on the important issues.
23 So, now let's look at the conceptual site
24 model. And the key feature or the real virtue of doing
25 this is it really helps us to increase site

1 understanding and understand very intricate processes
2 that are going on within a site.
3 And there are a lot of activities that go into
4 development of the conceptual site model, for instance,
5 identifying sources of contamination, identifying
6 release and transport mechanisms, identifying exposure
7 pathways, and critical receptors.
8 Now, this can be a rather involved process.
9 And in your handouts you have an example of a conceptual
10 site model. And this is one that was developed for the
11 Litigation Area. And if you look at this, you might be
12 a little taken back because it's a very busy diagram, a
13 lot of things are interconnected, and it's a little
14 cumbersome to work through.
15 So I thought what we would do is just mention
16 the conceptual site model now, and then during the Q and
17 A, if any of you are interested in looking at one of
18 these in a little more detail, I'd be more than happy to
19 kind of walk you through some of that.
20 As you can see from this diagram too, the
21 format for doing the conceptual site model really isn't
22 fixed. And on different risk assessments I've seen it a
23 number of different ways, but they're usually a
24 combination of, like, flow diagrams with embedded tables
25 and some footnotes of other text to help highlight

1 certain features.
2 Again, lastly, the real important feature,
3 though, of the model is it really helps us to increase
4 site understanding.
5 Now, we said that during problem formulation we
6 ask risk questions. Okay. These are really the
7 big-picture questions of the things that we're really
8 interested about at a particular site. And some
9 examples are chemicals and sediment adversely affecting
10 certain bottom-dwelling organisms, clams, mussels,
11 worms, whatever. Are chemicals in sediment accumulating
12 in these organisms to the extent that they may pose a
13 risk to the birds and mammals that happen to consume
14 them?
15 We could also ask questions with respect to
16 direct exposure, for instance, to contaminated soil.
17 And in this case we're talking about a dermal exposure
18 or incidental ingestion of sediment. When animals are
19 looking for food or browsing, a lot of times they will
20 incidentally ingest sediment.
21 MR. MENESINI: Are you saying -- I'll hold the
22 question until later.
23 MR. BIENERT: Okay. So the next step is that
24 we take these risk questions, and we state it a little
25 more formally in terms of what we call the endpoints of

1 our assessment. And there are two types of endpoints,
2 assessment endpoints and measurement endpoints. The
3 assessment endpoints are really an expression of what
4 plants and animals are we most concerned about. Okay.
5 And typically when we talk about assessment
6 endpoints, we're dealing at the level of the community,
7 groups of populations. Okay. We're -- we're pretty far
8 up in the hierarchy. An example, protecting populations
9 of, say, clams and worms from adverse effects. Okay.
10 Now, one of the limitations we have with all of
11 these assessments is we can't go out and measure --
12 study every single plant and animal species. So, what
13 we really need to do is we need to focus these
14 investigations on a subset of species or components that
15 are representative of some of these other populations or
16 communities that we're interested in. And that's really
17 where the measurement endpoint comes in.
18 This really addresses how are we actually going
19 to measure these adverse effects. So when we get down
20 to the measurement endpoints, we're really getting down
21 to brass tacks. An example would be that we can look
22 for direct measurements of toxicity, for instance, using
23 some kind of invertebrate assay on a clam or worm or
24 something like that.
25 And in ecological risk assessments we're

1 interested in a broad array of effects. It isn't
2 necessarily just mortality. Okay. The effects can be a
3 little more difficult to discern. They can be subtle
4 effects on, say, reproduction. All of a sudden an
5 organism isn't producing as many offspring as it did
6 previously. It may not die, but it's not as productive
7 as it was previously.
8 Those kinds of effects are certainly
9 interesting in their own right. They're not as dramatic
10 as seeing a mortality, and they pose an extra challenge
11 in the ERA to take into account the broad range of
12 potential effects.
13 Okay. Now, there are two -- on the technical
14 side of the baseline ERA there are really two types of
15 assessments we perform, the exposure assessment and the
16 affects assessment.
17 The exposure assessment is really asking what
18 concentrations of chemicals are the plants and animals
19 exposed to, and then the effects assessment comes in and
20 says what concentrations of these same chemicals are
21 known to cause -- known or believed to cause adverse
22 effects.
23 And at this point we open up a large toolbox
24 that we use, and we pull some things out that we can
25 apply for addressing each of these assessments. And we

1 use things in ERA such as toxicity benchmarks, toxicity
2 testing, actual tissue analysis, looking at the burden
3 of chemicals in the tissues of certain plants and
4 animals, and we also use food chain modeling.
5 And these figures at the bottom sort of
6 illustrate one example of the food chain modeling
7 process. And here we have sediment that we would
8 collect at the site and measure the chemical
9 concentrations. We have some prey items that we would
10 collect, again, at the site, and measure the
11 concentrations of chemicals in the prey, and then we'd
12 model a dose to a receptor of interest.
13 Okay. This is really the total burden of
14 contaminants that this receptor is receiving through the
15 food chain. Okay. Then we evaluate -- once we model
16 that dose, then we evaluate the significance of the dose
17 by comparing it to a benchmark value or what we call a
18 TRV, Toxicity Reference Value.
19 Now, two really important things that we do are
20 actually designing our studies and collecting data. And
21 this process is really guided by the seven-step Data
22 Quality Objectives Process that EPA has developed. This
23 is really the main tool that we use for optimizing the
24 direction of the data that we use to support the risk
25 assessment.

1 And there are really a large number of guidance
2 documents and supporting tools. Some of them are pieces
3 of software that can be used for supporting the DQO
4 process and for actually analyzing data.
5 In the handouts that you have, the section on
6 ERA, there is a large number of references to some of
7 these reports or tools, and in addition to that some
8 links if you're interested in following up and
9 reading -- reading more about this process.
10 Now, risk characterization is -- is really a
11 fundamental -- fundamental part of the ERA, and this is
12 really where we try to make sense of all the data and
13 information that we've collected. And this -- this can
14 really be quite a chore.
15 In the risk assessment we have a lot of
16 disparate, discrete pieces of information, and we look
17 at each one of these pieces of information. We call it
18 a line of evidence.
19 Now, what are some typical lines of evidence
20 that we use? There is things as simple as the
21 concentration of contaminants in different media, in
22 soil, in sediment, and water. They can also be
23 things -- a little more advanced lines of evidence that
24 give us more direct information, like the results of our
25 toxicity testing. Each of these individually is a line

1 of evidence.
2 And then we use what we call a weight of
3 evidence process where we try to build consensus with
4 all of the scientific investigators, with the regulatory
5 agencies to decide how much importance do we impart to
6 individual lines of evidence, and then what does it all
7 mean collectively when we bring everything and put it on
8 the table? How are we going to glean an interpretation
9 from all of this data?
10 And this is actually a pretty interesting
11 process. I think the agencies can tell you that we've
12 spent many a long hour in smoke-filled rooms
13 discussing --
14 MR. SKAREDOFF: That's not a very good
15 environment.
16 MR. BIENERT: Back in the olden days. Now
17 they're -- they're squeaky clean rooms.
18 -- but discussing how we're going to interpret
19 the data. And as you might imagine, everybody has their
20 own ideas. So this is not a straightforward process.
21 There is an awful lot of give and take.
22 And throughout this process we need to always
23 be taking into account the ecological significance of
24 the data that we have collected. You know, we need to
25 really focus in on the plants and animals that are most

1 at risk, where is the greatest impact likely to occur,
2 and what does all this mean in ecological terms?
3 And I might point out that risk
4 characterization within an ERA, as you might imagine, is
5 a good bit more challenging and complex than the risk
6 characterization in a human health risk assessment
7 because we're dealing with many, many species. And
8 typically our understanding of how these different
9 chemicals affect one individual plant or animal species
10 is very, very limited compared to the wealth of
11 knowledge we have on the effect of these chemicals on
12 human receptors, which stands to reason.
13 The human health work came first. That's where
14 we developed the risk assessment paradigm. The
15 ecological risk assessment came afterwards and has been
16 adapted from the human health paradigm.
17 Now let's move on to risk management. We said
18 that within ERA we establish whether an unacceptable
19 risk is present, and then we try to define a range or
20 magnitude for the risk estimates. The risk management
21 then takes the results of the ERA and integrates this
22 with a number of other considerations in order to make
23 and justify the risk management decisions.
24 Now, one important thing is that conclusions
25 and recommendations from the ERA should be clear and

1 unambiguous. Ideally that's what we want. For example,
2 we might want to conclude that the ecological risk is
3 acceptable, and we might recommend no further evaluation
4 and no remediation at least from an ecological
5 perspective.
6 Conversely, we may conclude that the risk is
7 unacceptable, and we may recommend to move on to the
8 analysis or evaluation of the remedies, and, if
9 appropriate, even additional evaluations of COPCs,
10 receptors at risk, perhaps refinements on our estimates
11 of the scale and magnitude of the risk.
12 This often in practice is not cut and dry. A
13 lot of times it isn't black and white. There are gray
14 areas. And as the agencies will tell you, this is
15 another thing that we spend quite a bit of time
16 discussing.
17 Finally, the risk management process is really
18 quite complex, and there are an awful lot of activities.
19 The risk manager really needs to do a number of things
20 including balancing the risk reduction associated with
21 different cleanup alternatives with the potential
22 impacts of the remedial actions themselves.
23 As we said in the first slide, we want to make
24 sure that we don't do more harm than good as we move in
25 to clean up. And, obviously, the managers need to

1 consider the input from the risk assessors,
2 stakeholders, and other involved parties. And then
3 there are a whole host of other considerations that go
4 into risk management. Shanna had mentioned one, an
5 important one with ERA also, is the implications of
6 existing background concentrations where these
7 background levels are concentrations that would exist in
8 the absence of site activities.
9 Now, the risk manager needs to consider the
10 available technologies, cost of different alternative
11 actions. And, again, it's very important that the --
12 you know, this risk manager needs to be cognizant of
13 both the human health and the ecological concerns, the
14 results of both of these -- both of these assessments.
15 And that's it for nuts and bolts on ERA. And
16 if anybody wants to ask questions, again, Shanna on
17 human health, or me for the ERA, maybe look at some of
18 these interesting, complex spaghetti diagrams and try to
19 make some sense out of them.
20 MR. MENESINI: One of the things that strikes
21 me, and, of course, thinking of it in reverse rather, is
22 the sustainability, which we're going to have a lecture
23 on coming up this Monday at John Muir by one of the
24 Corollo Engineers.
25 And it appears to me that the stability of the

1 environment, the toxicity and all that, so called the
2 ambient effects, is so often contaminated by the
3 heritage of what's there previously, and it's hard, I
4 would think, to put that into the equation and come up
5 with --
6 MR. BIENERT: It's an enormously difficult
7 undertaking to -- when everything is said and done, to
8 draw a conclusion that a particular effect can -- can be
9 contributed to a particular site activity or a
10 particular chemical. As in human health we're dealing
11 with mixtures of contaminants. We're also looking at
12 effects that sometimes are not very easy to measure.
13 There are some kinds of sublethal insults that don't
14 express themselves immediately, they may take many, many
15 years.
16 And, in fact, as the tools were developed for
17 the ERA, there is some really interesting things that
18 people have been doing in terms of looking at population
19 models, what's the long-term effect of a reduction in
20 reproduction. Say a bird is laying a clutch of eight
21 eggs and the typical mortality for the eggs is X, and
22 then all of a sudden that bird is laying half as many
23 eggs with roughly the same mortality, what does that
24 mean to the long-term viability of that particular bird
25 species, even though, you know, you're not killing the

1 bird, but it is a sublethal insult?
2 And the fact is that we don't have all the
3 tools for addressing those kinds of impacts. They're
4 extremely difficult to tease out. Like I said, there
5 are a lot of times when these assessments can be cut and
6 dry.
7 You can do a bioassay, and a lot of stuff just
8 kind of drops over dead, we can link it to a specific
9 contaminant. We understand the behavior of that
10 contaminant in that particular animal species, and we
11 say, yeah, it matches up. That's the kind of effect
12 we'd predict. That's the kind of effect we're seeing in
13 our bioassays. That's the problem we have at this site.
14 It fits. Great. That's the idealized situation. It
15 typically doesn't. It's not that easy.
16 Yes.
17 MR. SKAREDOFF: I guess I have -- I guess it's
18 a series of questions, but they kind of all evolve
19 around one central theme, and it has to do with exposure
20 pathways. For instance, if there was something -- if an
21 area is contaminated with something that the organisms
22 were exposed to it would cause harm, but they're
23 presently not exposed to it, and, therefore, that's not
24 a problem, what is to keep the exposure pathway locked
25 in the future? I mean, how do we assess whether it's

1 likely to continue to not be a pathway or may develop
2 into one later?
3 MR. BIENERT: It depends. You have got to look
4 at that sort of on a case-by-case basis.
5 And in some cases, let's say, where we've
6 determined the risk exposure pathway, the pathway is
7 through, say, contaminated soil, after you've done your
8 risk assessment, if you conclude that that risk is
9 unacceptable, one way of remediating that pathway is to
10 go out and remediate that soil. You replace it, say,
11 with a clean material, or something like that, and that
12 is effectively eliminating that -- that particular
13 pathway where you would actually prevent an animal
14 completely from being exposed.
15 Let's say there is a situation you're going out
16 and you're -- for one reason or another you examine an
17 area where, obviously, that is a very effective way of
18 eliminating an exposure pathway. But with eco receptors
19 sometimes it's not quite as easy. We don't often have
20 quite the clean-cut options that you would have with
21 human health. But I would certainly think that
22 remediating contaminated soil where you had a clearly
23 established pathway is certainly one example of how you
24 would.
25 MR. SKAREDOFF: Well, let's say, for instance,

1 there is some soil that if sometime in the future
2 somebody built day care on it, and kids played in the
3 dirt, this would be bad for the kids. I guess one way
4 to say it is disown it, say, thou shall never build a
5 day care center here. That would be what you call an
6 institutional solution.
7 MR. BIENERT: It happens. It happens every
8 day. A lot of times that's the remedy of choice. It
9 can be more cost effective and certainly more
10 protective.
11 MS. COLLIE: That's one of the reasons for in
12 human health risk assessment especially the EPA did put
13 out clarifying guidance saying go ahead and assess every
14 site to residential standards, including assuming that
15 kids are going to play there. And so the most exposed
16 receptor population is those kids would be there, unless
17 you have a compelling reason to do otherwise.
18 And typically that means some legal, you know,
19 institutional control saying this will never be
20 residential property. That's -- that's kind of the
21 reason why sometimes you'll see it, you know, over and
22 over again in risk assessments, no, it's not residential
23 right now, and it probably won't be ever, but we're
24 looking at it in case in the future it is.
25 MR. SKAREDOFF: So, that's a default case, I

1 guess.
2 MS. COLLIE: Yeah, in general that's what
3 you're going to see.
4 MR. SKAREDOFF: And how has that been
5 translated into what actually happens? Does that mean
6 that everything then gets evaluated on the basis of
7 potential residential use, or is there some judgment?
8 MS. COLLIE: It depends on the site. And
9 that's kind of the purpose of a five-year review, too,
10 is that if the assumption was it's going to be
11 industrial or stay industrial, we develop cleanup goals
12 based on that assumption. Then in five years that's
13 reassessed to make sure that's still protected based on
14 the assumptions that were taken into account when that
15 Record of Decision was signed.
16 So, it's kind of a continuing review process to
17 make sure nothing new has happened. There's not some
18 new pathway that we didn't think about five years ago.
19 So, that's one of the checks in the system. But
20 it's the importance of that conceptual site model
21 saying, okay, what are we protecting? What are all the
22 pathways?
23 MR. SKAREDOFF: I guess that's the question
24 that makes me the most nervous is the -- what you call
25 it? -- the institutional solution.

1 MR. RAMSEY: Control.
2 MR. SKAREDOFF: Control, yeah. That seems to
3 be the most vulnerable if something's changed in the
4 future. Records get lost or whatever, you know, and
5 then, hey, we got this great place. Let's --
6 MR. BIENERT: Institutional controls are not as
7 effective for eco receptors. You can't tell the clams
8 and mussels, hey, you can't go over there anymore and
9 play.
10 MR. SKAREDOFF: I guess on the ecological side,
11 for instance, if -- if some different species show up in
12 the future -- I don't know if this is a good example,
13 but let's just say the Bald Eagle starts to show up
14 here, now we've assessed it for, I don't know, Redtail
15 Hawks, or whatever, presumably that still works for Bald
16 Eagles, pretty much, or --
17 MR. BIENERT: Well, this is another reason why
18 this five-year process is really very effective, because
19 it allows you to reevaluate some of these questions.
20 And in the case in which you've implemented
21 some remedy, you then have to reevaluate is that remedy
22 still protective. And if some conditions have changed,
23 let's say you have a new receptor on the scene that has
24 a slightly different behavior than one that you might
25 have modeled, say it's a different kind of bird, but for

one reason or another it exhibits a behavior that puts it more at risk, some kind of feeding behavior that some of the other receptors didn't, then all of a sudden you've got a new -- you know, you've got a new situation that you need to consider.

MR. SKAREDOFF: So we're pretty much using the five-year review as a safety net for this kind of thing?

MR. BIENERT: I think that was one of the reasons that you go back and you reevaluate the questions that you thought that you already addressed and the remedies, and you see if they're still holding.

MR. RAMSEY: Not to mention changes in how the science is generating new toxicity values for human health risks. There's new toxicity values for human health risks and things. That's one of the purposes of the five-year review plan.

MR. MENESINI: Reminds me of the study they did on the seagulls. They wanted to know what was causing the seagulls to have a problem and did all kinds of chemical and biological assessments of these poor buggers. And they eat everything, so what do you -- do you really test for? And, you know, it turns out that the thing they ate was -- was a -- was a little shore crustacean, and it had in it a worm -- the Acanthocephalid worm that hung onto his intestines, and

that's what made him sick.

But, you know, theoretically it could have been anything. And, you know, that's what happens when you put something in the future, five-year review, ten-year review, 20-year review, whatever it is, one time somebody picks up the real cause of what's making people sick.

MR. SKAREDOFF: I guess my last kind of question, is the five-year review then -- and then after that the books are pretty much closed on the deal, or is there some --

MR. RAMSEY: These are five-year reviews, plural.

MR. SKAREDOFF: Forever?

MR. RAMSEY: Until the site is cleaned up, or until they achieve the cleanup goals.

Like groundwater contamination. Say at the SWMUs sites where there is a groundwater plume. That is a potential drinking water supply. The Navy will have to -- if they don't take action to clean up that groundwater to drinking water standards, they would have to monitor and -- you know, monitor that until the drinking water contaminant concentrations reached drinking water standards, at which point the action would be complete there. So, it's plural.

MR. BIENERT: Pardon me. Exit criteria aren't clearly defined after the five-year process. Remember the early versions of the guidance it appeared that there were no relevant criteria well defined for when you're done.

MR. RAMSEY: It's -- it's when you -- there should be clear cleanup goals. Like for groundwater for the Concord area, it's a potential drinking water supply. So if there is groundwater contaminants and the Navy didn't take action to immediately clean up the water, they elect to do some kind of long-term monitoring, institutional control restricting groundwater at -- like within the base, which the military could do relatively easy, and there is no need to restrict the groundwater.

And they will continue to monitor that if they elect to do, you know, that remedy, end up down that way, institutional controls, they would have to monitor that until that groundwater would achieve MCL, meaning the plume there at the SWMUs sites is less than approximately five parts per billion VOCs. May be a long time.

MR. BIENERT: Okay.

MR. MENESINI: What happens when there is a political decision to pull back, as recently with EPA

and our current administration?

MR. RAMSEY: It can work both ways. I mean, frankly, Mario, it could work both ways for the military, because at the five-year review we can turn up and say there is actually new standards now, and something that was considered okay to monitor could trigger actually action.

It's the same for five-year reviews where you have a remedy in place and you find out -- it's what's happened at the litigation areas. The five-year review concluded there was a nonprotective remedy. The Navy is now -- we're pursuing a course of assessing data gaps and looking at feasibility studies to address the areas that have -- have problems. And the Navy has admitted that.

And so, that five-year review could work the opposite for the military where they thought they're just going to monitor, and something changes, and they actually have to go back and do more work.

MR. GRIFFITH: Does the Navy's responsibility for cleanup continue even if the land has changed hands; for instance, if it's gone with the city?

MR. RAMSEY: For the bases where it's transferred, it's sites. And if there has been any kind of -- the Navy still -- the federal government has --

1 they reser- -- they always reserve the right to enforce
2 actions.
3 If there was institutional controls, or there
4 was some kind of remedy that was being operated -- say
5 in the event you had a remedy in place and the Navy was
6 able -- it was actually operating successfully, it was
7 transferred and something happens, the Navy is -- is a
8 party to assure that they're not -- they haven't washed
9 their hands of the site if it's either transferred or in
10 particular for institutional controls.
11 I worked on the Alameda annex and made a strong
12 point, and the Navy agreed that there is -- that, you
13 know, the city is responsible, so they're part of the
14 ICs, the Department of Toxins, which was the state lead
15 at the site, has agreements with the city and the Navy
16 to continue monitoring the groundwater or excavation at
17 those sites.
18 And, likewise, the Navy is also still
19 responsible in the event somebody got in there and did
20 something wrong. So they still have a -- a role to
21 assure that if there is control or actions, that those
22 things continue to operate without any -- you know, any
23 risk or problems being caused by future tenants and
24 things like that.
25 MR. TYAHLA: Basically there is CERCLA. It's

1 very specific, be it a BRAC base or not a BRAC base, for
2 any federal property transfer. The federal government
3 is still responsible to the point of actually issuing
4 like covenants when the property is transferred, that if
5 you find something later the Navy put there, we'd be
6 responsible. So CERCLA is pretty clear, BRAC or not.
7 It's Section 120 point something, or 121. I've been
8 through it.
9 Yeah, so we don't -- we can't dump and go,
10 unless somebody signed an agreement saying we take all
11 responsibility, then there is potential there too.
12 MR. O'BRIEN: Phillip, if I'm following you, if
13 the property gets sold and there's a new owner, that new
14 owner shares some of the responsibility and the cost for
15 continued monitoring, cleanup; is that correct, or not?
16 MR. RAMSEY: One example I'm aware about is the
17 City of Alameda. They have excavation ordinances
18 because of contamination -- a soil layer that's
19 relatively deep beneath a large area of Alameda Island.
20 And the city has their own excavation ordinances in
21 place. So they have their city planning office that is
22 involved with the permitting of people who do
23 excavations in certain areas and to kind of be aware and
24 in charge of monitoring those controls.
25 So they assume that responsibility and that

1 cost. And I don't believe the Navy reimburses the city
2 for those kinds of activities.
3 MR. TYAHLA: I don't know if that property is
4 transferred by deed yet or not in Alameda.
5 MR. RAMSEY: There was a transfer because I was
6 involved with that several years. The Alameda annex,
7 there was some earlier transfers, and some transfers to
8 the city.
9 And, again, also, Mr. O'Brien, the Department
10 of Toxins has a memorandum agreement. I'm not sure if
11 that was with the city or with the Navy, but they're
12 also still involved there to assure that these controls
13 are enforced, and they -- they provide one of the layers
14 in these institutional controls.
15 And then we came in and made sure the Navy also
16 maintained that. It's like a federal requirement. They
17 need to maintain -- be a party of those controls,
18 because if something were to happen, the Navy would want
19 to potentially step in. They may need to step in and
20 sue under CERCLA parties for causing additional
21 problems.
22 MR. COOPER: Ray, was part of your question
23 having to do with whether funds were transferred from,
24 say, the federal government to the city, using that
25 example, to maintain a remedy? Was that part of your

1 question, or you just wanted in general who pays?
2 MR. O'BRIEN: Just in general who pays.
3 MR. COOPER: It's actually not as
4 straightforward as it might seem. There's the potential
5 for multiple entities to pay.
6 MR. MEILLIER: And then there is also the
7 possibility of purchasing insurance. Like some of the
8 developers might be able to purchase insurance to insure
9 themselves in case that basically a site has been
10 discovered or contamination is higher than expected, and
11 they have to put in money, there is an insurance policy.
12 Like Mare Island is a good example for that.
13 That's where insurance has been actually in the picture,
14 and above the insurance liability the Navy would chime
15 in and reimburse the developer.
16 MS. WALLERSTEIN: I need to step in here. I
17 think we're coming up on a break for the court reporter.
18 Are you okay for another five minutes or. . . .
19 THE REPORTER: That's fine.
20 MS. WALLERSTEIN: Okay. Are there any other
21 questions?
22 MR. MENESINI: Just a statement. I don't know
23 that it doesn't apply to private parties as well. PG&E
24 sold an old generating place up in Sacramento a long
25 time ago, and the buyer used it to store batteries. And

there was all kind of lead contamination, and PG&E was responsible for the cleanup as well as the owner -- the current owner. So, it seems to me it's a very difficult involved legal problem.

MR. TYAHLA: I think a lot of problems that we have at Concord the Navy bought. So in modern times transferring federal properties is a lot more controlled under CERCLA.

MS. WALLERSTEIN: Okay. I think it's time for a break now.

And thank you Shanna Collie and Ray Bienert.

We'll reconvene at 8:02.

(Recess from 7:51 p.m. to 7:59 p.m.)

MS. WALLERSTEIN: Okay. The next agenda item is discussion of future training for the RAB. And I just wanted to bring up, we have a speaker from EPA slated for next month to do the toxicology training and then in -- that would be in October, and then in November we want to wrap up with fate and transport. We're still arranging for a speaker for that meeting.

MR. SKAREDOFF: I'm sorry. What was the subject for November?

MS. WALLERSTEIN: Fate and transport.

MR. SKAREDOFF: Sounds like an opera or something.

MR. RAMSEY: You said toxicology?

MS. WALLERSTEIN: Toxicology in October, and fate and transport in November.

And then Mary Lou wanted a minute to explain what she handed out.

MS. WILLIAMS: Okay. I handed everybody Draft Report Site 22. This is the report from Peter Strauss, who is the TAPP Grant, and this is his work on the reports that he's reviewed and his comments. And he will be here at the October meeting for Q&A. And he requested that everybody read it and be ready for October.

And at the October meeting, right prior to that, he will give me his reports on Site 13, 17, and the SWMUs, and then he will be here in November to discuss that.

That's it.

MS. WALLERSTEIN: Okay.

MR. COOPER: Mary Lou, he's not going to test us on this stuff, is he?

MS. WILLIAMS: You tested me earlier.

MR. MENESINI: What was the "that" in November?

MS. WALLERSTEIN: Fate and transport.

MR. MENESINI: What is that, again?

MS. WALLERSTEIN: F-a-t-e.

MS. BYRNE: What does that mean?

MS. WALLERSTEIN: Where it ends up.

MR. TYAHLA: Potential Chemicals of Concern in the environment, either the soil, water, air, the fate and transport, if you know they're there, you measured them, what happens to them, how they move, do they degrade in place?

The fate is kind of like, well, what happens when they're just sitting there; and transport, how can it move.

MS. WALLERSTEIN: It degrades, it ends up bioaccumulating in the food chain; you know, fate, the sequence.

MS. BYRNE: Okey-doke. Got it.

MS. WALLERSTEIN: Okay. We also developed a RAB orientation packet. And I think Tetra Tech did a very good job on this. And this is available to all of the RAB members and agencies, if the agencies would like one, and the Byrnes also.

MS. CANEPA: It's the internal draft.

MS. WALLERSTEIN: It's not final yet.

So this is being put out to comment. And this is a packet that we've developed for current RAB members to use as a document to refer to, and then if and when we have new RAB members, this would provide, you know, a

complete orientation package.

MR. SKAREDOFF: So I'm not sure I heard it right. Are we looking for comments on this or not?

MS. WALLERSTEIN: Yes.

MS. CANEPA: It needs to be produced by the end of September, so. . . .

MS. WALLERSTEIN: As soon as possible.

MR. TYAHLA: Sooner than two weeks, probably.

MS. CANEPA: Two weeks.

MS. WALLERSTEIN: We'd like comments back in two weeks, sooner if possible.

MR. TYAHLA: If it helps, a lot of it is background information you would have seen in other reports, things like that. So, it will be important to get the current RAB members' review as if you were going to hand it to a new RAB member. So really think of that, what might be helpful to them.

MR. MENESINI: Is it virus proof?

MS. CANEPA: It is virus proof.

MR. MENESINI: I just want to make sure.

MS. WALLERSTEIN: Okay. So, that brings us to the committee reports and announcement for the RAB report.

MS. WILLIAMS: Igor?

MR. SKAREDOFF: Okay. There has been a lot of

1 E-mail traffic and other kinds of conversations going
2 on, which I guess I was one of the people that initiated
3 it. It had to do with the way we run our meetings and
4 the content that we have here. And I guess this is
5 going to be actually put on the agenda for us to discuss
6 probably -- is it in the November meeting you think,
7 Margaret?
8 MS. WALLERSTEIN: Yeah, in November we'll -- I
9 guess we'll write this up and E-mail it out or, you
10 know, hand it out at the next RAB meeting and agendize
11 it in November.
12 MR. SKAREDOFF: Well, basically it's some ideas
13 that I and some other folks have had to improve the
14 process. And so, there will be some written information
15 about it handed out at the next RAB meeting, and then
16 the following one we can talk about what we think of
17 them, whether we want to try to make them happen.
18 I can give you a little preview where I was
19 headed with all this, and that was to see if we could
20 get a little more meat out of the reports from the Navy
21 and from the agencies.
22 We've been so conscious of trying to stay
23 within certain time lines, all those folks who make
24 these reports have been condensing and condensing their
25 reports, to where now a lot of it just ends up being

1 sort of a list of the meetings they went to and the
2 letters that were written, and to find out the -- sort
3 of the substance of what was going on we're given
4 handouts to read to try to figure out what subtopics
5 were and what the subjects -- what the issues that are
6 outstanding might be.
7 And I find it personally kind of difficult to
8 read all of that stuff, No. 1; No. 2, it's difficult to
9 tease out what are the key features, the main threads
10 out of that. There is an awful lot of information in
11 there, and just to try to sort through it and sort of
12 pull out what are the highlights, for me is a chore, and
13 I guess I would like to get some help with that in the
14 RAB meeting.
15 So, that was my motivation in bringing this
16 before the group, to see if they wanted to encourage
17 another way of making these presentations. My thought
18 was that -- not to add time to the meeting. There has
19 been a lot of concern about lengthening the meeting.
20 I'm not suggesting we do that.
21 I'm suggesting that instead of reporting on the
22 sort of procedural things that people do, such as, you
23 know, reporting the kinds of meetings they went to and
24 the letters that they've written and things that they've
25 commented on, would be to put that into a written

1 handout.
2 We could all get that and refer to that if we
3 wanted to, but mainly to have the agencies and the Navy
4 sort of report back on what kind of issues have
5 surfaced, what things are maybe getting close to
6 completion, what things are being picked up, what kinds
7 of things are -- maybe they're not in complete agreement
8 among the various parties on, and have perhaps a brief
9 discussion of what those disagreements might be about,
10 and also a chance for the RAB members to ask clarifying
11 questions to sort of help to understand what's really
12 happening with the issues towards getting the site
13 cleaned up.
14 So, that's probably -- unless somebody has any
15 other questions, that's pretty much all I had to say.
16 MS. WALLERSTEIN: Okay. Igor had discussed
17 this also with Phillip Ramsey, and I think with Laurent,
18 and we've discussed it too. So I've agreed to kind of
19 write up an outline and, you know, flesh it out a little
20 bit more and talk to Stephen and then produce something
21 written for everybody to look at. So we'll be seeing
22 that -- I'll either E-mail it out or hand it out at the
23 October RAB.
24 Any questions or. . . .
25 Okay. I guess that brings us to the remedial

1 project manager --
2 MR. MENESINI: Yeah, I'm just not sure how that
3 would change what we're doing.
4 MS. WALLERSTEIN: Well, I guess --
5 MR. MENESINI: Because I'm satisfied with what
6 I'm getting.
7 MS. WALLERSTEIN: Uh-huh.
8 MR. TYAHLA: Shall we take a --
9 Well, the next part of the agenda is exactly
10 what he hates to hear. No, really.
11 MS. WALLERSTEIN: Maybe as we run through this
12 we'll get a good example out of it.
13 MR. TYAHLA: When I talked to Igor about it, I
14 understand totally, I think, where he's coming from.
15 What the RPM brief has been basically is going through
16 kind of like RPM activities. Like what I put on my
17 cheat sheet is basically what he's asking to be a
18 handout, which is like RPM activities since last RAB
19 meeting, kind of fill you in on what meetings we had,
20 what key documents we sent out.
21 And I could easily take this and make it a
22 handout. And it would probably be nice for the RAB if I
23 did that, and then I drafted it, say, and the other
24 agencies, you know, put in their -- their input into
25 kind of a snapshot here's what we did over the month.

1 And then when we get to this next part, which is our RPM
2 update, maybe talk about some more salient issues.
3 Like I'm sure something Phillip will bring up
4 tonight about an issue that maybe still can be
5 contentious, and that would be the kind of things we
6 want to elaborate on more rather than just like -- well,
7 just list. Plus there would be some advantages of
8 having this as a handout. That way you can say, what
9 the hell did Tyahla and those other guys do this month,
10 and you can look and say, ahh, that's what went on.
11 MR. MENESINI: Kind of a newsletter.
12 MR. TYAHLA: Even a chronology, just what
13 happened. I like to look at it as a chronology because
14 it's easier to follow and say, you know, what happened
15 when, what meetings did they have, and then key
16 documents went out. So, you know -- and correspondence
17 wise I think that's --
18 I'm trying to put myself in the RAB's
19 perspective. I think that would be helpful to kind of
20 say, you know, what are you working on, and then when we
21 get to RPM update, reserve that for like what are the
22 key issues where we had disagreement or we're working to
23 resolve issues.
24 And so, what I plan to do tonight, at least
25 when I go through my short list of what we -- what from

1 my perspective the RPMs did this month, I can elaborate
2 on a couple of these things and kind of give you a
3 little feel about where certain issues stand.
4 Does that kind of help a little bit?
5 MR. GRIFFITH: Just maybe a suggestion would be
6 to entitle the section Remedial Project Managers' Key
7 Issues or something like that.
8 MR. TYAHLA: We can do that.
9 MR. GRIFFITH: Then it will be really focused.
10 MR. MENESINI: That's okay.
11 MR. TYAHLA: So with that I'll just start going
12 through my update. I'll try to make it a little more
13 animated than usual.
14 But guess what, on the 12th of August the Navy
15 did send out a letter. We did send out a letter. We
16 sent out the Draft Final Site Management Plan which was
17 dated 11 August, and you should have all received that.
18 And that was -- if you recall back on the 14th -- on the
19 14th of July RAB, I briefed that, tried to explain how
20 we developed it and what's in it.
21 And I understand from speaking with Phillip,
22 and he may elaborate on this, we will likely get a
23 letter from the EPA with some -- some minor kind of
24 adjustments we need to make to that. But I think, you
25 know, in essence the thing's pretty much intact. And it

1 still doesn't become final, the Site Management Plan,
2 until we get confirmation that our budget is good for
3 the next fiscal year kind of thing.
4 If we come back and we get a budget that says,
5 well, Steve, you wanted 2 million, you're getting 1,
6 it's like eek, then I got to sit back and maybe readjust
7 this. That's where the Site Management Plan is, and
8 that's what we sent out on the 12th of August.
9 18th of August we sent out a draft addendum to
10 a Sampling and Analysis Plan for the investigation of
11 arsenic at IR Site 22. And we had recently -- or at
12 least a couple -- a RAB or two ago briefed everybody on
13 Site 22 and the results of that Supplemental RI, but
14 this is the follow-up work to examine arsenic issues in
15 the soil.
16 And I was just speaking on the break with
17 Margaret and Joanna, from Tetra Tech, so we will likely
18 plan on having maybe a short briefing on that Draft
19 Sampling Plan for arsenic at the next RAB meeting, just
20 kind of give you the nuts and bolts where things are at,
21 like where we plan to sample, how we plan to do that.
22 That's for Site 22.
23 And we did have our regular RPM meeting or
24 regular monthly RPM meeting on the 19th of August.
25 On the 25th of August I sent out the final

1 minutes from our 22 July meeting. You know, you get
2 those rather late, but everybody wants to get them, so
3 you get them when they're all finalized.
4 On the 3rd of September we issued the Draft
5 Groundwater Sampling Summary Report for Sites 13 and 22.
6 And that's the report that is the first formal report of
7 our results from the perchlorate sampling we did in the
8 Site 13 wells and the one well at Site 22, and
9 explosives we did at Site 13. And I know we presented
10 the results back a few RAB -- RABs ago during a RAB
11 meeting.
12 And, if you recall, as part of the Site
13 Management Plan revisions because we found that -- you
14 know, those low concentrations of perchlorate in Site 13
15 wells, like two micrograms per liter and below, that we
16 do have in our Site Management Plan currently to further
17 assess Site 13 groundwater, which is going to first
18 involve looking at data we have and then assessing
19 groundwater flows and determining what we need to do to
20 follow up with that and see what kind of issues we have
21 at Site 13 instead of pursuing the ROD that was
22 originally in the SMP, you know, some time ago.
23 So those are basically the highlights from my
24 perspective right now. I think Phillip is probably
25 going to talk a little bit about the comments we've

1 received from the EPA on the Revised Draft Final ROD.
2 I'll let him speak to that first. I may follow up after
3 he talks or brings that up.
4 I think that covers everything from my
5 perspective, unless there is any questions right now.
6 Who's up next?
7 Phillip, I think you're up next.
8 MR. RAMSEY: That's fine.
9 Let me try to change to address some of Igor's
10 comments because, I think, again, what I like to do is
11 explain these are the letters EPA has issued, and I can
12 provide a couple of real quick comments because I know
13 we did talk about that.
14 And I've always been available to do this in
15 the past. It's been simply, I think, a time issue with
16 people aren't giving time for the regulators to speak.
17 We haven't been trying to, you know, push everyone and
18 force people to sit here and listen to us talk. It's
19 really up to you folks if you want to hear what we have
20 to say or not. So I'm happy to provide that input, and
21 I appreciate your interest.
22 But for this month -- or in August, excuse me,
23 EPA did issue two review letters on the SWMUs, which is
24 the Solid Waste Management Units, draft. It was a Draft
25 Sampling Plan Addendum to do some soil gas work out at

1 those -- these are kind of the industrial maintenance
2 buildings in the core portion of the base. And we are
3 continuing to -- we had a discussion with the Navy, had
4 a revised sampling map, and then that was submitted
5 about the time we had completed our review.
6 So the overall locations of those borings is
7 generally acceptable. We had a couple of comments and
8 suggestions. After we get all these things moved around
9 and we reevaluate a figure, we still had a couple of
10 comments about some points, and we're waiting to hear
11 back from the Navy on that.
12 I also had -- considerable discussion had to do
13 with -- kind of refer to it as a laboratory strategy,
14 but it was a concept of using mobile labs to do the soil
15 gas work versus a fixed laboratory.
16 And based on my letter on the 14th, the Navy
17 submitted an E-mail message to me on the 2nd, and I had
18 a subsequent conversation with Tony Tactay, who's
19 Steve's counterpart, another RPM at EFA West, who's
20 leading that project. And I talked with him Friday
21 about the E-mail message, which was some cost
22 information and the detection limits that a fixed lab
23 versus a mobile can achieve.
24 So, there is going to be some ongoing
25 discussions, but we're -- it seemed to me there was some

1 reception on the part of the Navy to use EPA's
2 recommendations that they actually go out and use a
3 mobile lab to do lots of the screening. It may not be
4 quite as sensitive detection limits because the mobile
5 labs don't have quite as sophisticated instrumentation,
6 but they certainly get down there pretty good.
7 We're getting some confirmation on what those
8 detection limits are, but they are generally okay to
9 screen to get an idea about these gas vapor
10 distributions around a couple of source areas and around
11 this area of groundwater contamination.
12 So, again, we're looking for the sources of the
13 groundwater to assess different cleanup alternatives and
14 make sure the Navy's doing the right thing by addressing
15 all the source areas.
16 And so, that was the one big discussion is the
17 strategy that's -- again, the Navy seems to be fairly
18 receptive to do it, which is using a mobile lab to go
19 out and do lots of quick samples. It has fairly good
20 detections, but not super low. And then based on that
21 information we would select some samples, probably both
22 on the high and the low end based on the mobile lab's
23 detections, to send off to a fixed laboratory for a
24 little bit more precise quality and analytical work.
25 And so --

1 MR. BOYER: Phillip, is the mobile lab just
2 faster or --
3 MR. RAMSEY: They're cheaper. They're actually
4 both. I mean, they're faster. They're real time.
5 These people are running -- they'll pull a gas sample,
6 take it to a laboratory, like a trailer on the site,
7 these are injected or -- depending on the method,
8 sometimes there's some prep, or they're directly
9 injected in the GC, the gas chromatograph, and they get
10 the results. And so you can actually have a very
11 dynamic study. And that's what we're trying to do.
12 The overall direction and the motivation is to
13 potentially try to do this in -- in one phase and not to
14 do this in multiple phases because each phase
15 essentially represents about a year's time. And we
16 figure that we may be able to get all the soil gas work
17 done in one phase, meaning a one-year study, and not
18 multiple years, so we can kind of complete this
19 characterization work as quickly as possible.
20 MR. O'BRIEN: How less sensitive are these
21 mobile labs?
22 MR. RAMSEY: Well, generally, a mobile lab can
23 get a detection limit around five to ten parts per
24 billion. And so from a screening level that's not that
25 bad.

Now, when you look at risk assessments in an indoor air risk, the concentrations that could be a concern are actually still lower than that ten parts per billion, but that's how we use a screening, to identify specific samples that can then be sent off to a laboratory that achieves those levels that provides us the kind of -- this is, again, part of the DQO process. You don't have to run all the samples at a really precise level. We can screen and -- you know, it's an efficient way to do these studies. And we do these things beyond -- in addition to soil gas.

Just like when we send somebody to take gas samples versus putting in permanent monitoring wells. It's like a screening versus putting a lot more money and resources into providing really precise, you know, high-quality data. You have to assess what exactly you're needing all that for.

So you do a combination. You do some at a higher-level detection and a subset at -- a smaller percentage that would be at a more precise higher level that achieves those DQOs for risk assessment or to assess these indoor air issues, indoor air risks caused by these volatile chemicals in the groundwater.

So I think there is good progress there with the Navy and Tony on those discussions, and we're hoping

they will continue and we can -- again, trying to save the Navy money and to get this work done with the most effective -- effective techniques possible.

MR. SKAREDOFF: Phillip, am I right in understanding this as -- you're sort of having a trade-off between sensitivity and the number of samples and the turnaround time in getting the information back?

MR. RAMSEY: Well, again, using the mobile lab can first give us a broad approach where you can get a lot of samples to find out do we have any problems or not.

MR. SKAREDOFF: If you didn't use the mobile lab, would you be able to do as many samples?

MR. RAMSEY: Probably not. See, that's one of the troubles, the cost for the fixed lab, and the other trouble is all those fixed labs -- those samples are all sent in containers, they're shipped off to the lab, and a month or two later we'll get the results back, at which point then you'd have to remobilize and start over again.

Or in this case, the way the Navy's contract was working, they'd have to go back and re-establish a new contract to figure out now based on the results from the fixed lab, we think we have to do X and Y, to go back out for phase two, and so we're at year two, or

something like that, as opposed to using the mobile lab that already it appears the Navy may have more than enough -- the capability to collect more than enough samples because of the cost efficiency of the mobile lab. So they already have the contingency samples built in right now if they were to go out and do a majority of this work with a mobile laboratory.

Does that answer your question?

MR. SKAREDOFF: Yeah. And this is particularly having to do with soil gas analysis?

MR. RAMSEY: This is for the SWMUs, the Solid Waste Management Unit, where we're looking for the source of the volatile chemicals in the groundwater.

So, again, we're going back to -- the Navy's conclusion in the draft RI was the source areas. We haven't done anything because we did the shoot-in-the-dark to collect soil samples, but we -- the EPA came back and pointed out that there was a wash rack that may have used solvents because we know -- I'm aware the military sometimes used, you know, industrial degreasing solvents on locomotives and heavy equipment and stuff like that. So the wash rack was a source area.

And we've actually got information from the Navy during this SAP development, this sampling plan

development, on a waste oil tank that we had already believed -- these waste oil tanks are problematic. Waste oil, that's waste, whatever, went into these tanks historically in the past.

And, sure enough, there's information from that waste oil tank that confirms my suspicion it may have been one of the sources in that the tank had -- did have contamination.

There was soil contamination excavated from that tank removal, but due to structural issues regarding the power pole in the area they weren't able to complete the excavation. And there's some analytical data that lead us to believe -- that indicate that those nondetects of VOCs may not have been -- there's high levels, so there still may have been VOCs in the soils there from a waste oil tank.

MR. SKAREDOFF: Okay.

MR. RAMSEY: So, that was on the 14th on the SWMUs.

Now, also in August we were wrapping up our review on the draft -- excuse me -- it's a Revised Draft Final Site 1 ROD for the landfill. And our comments were due right around the end of August. So on the 22nd EPA provided a letter to the Navy -- I apologize to folks, I actually have copies here of both the

1 August 14th letter on the SWMUs, Solid Waste Management
2 Unit, sites, and I have a few copies of our comments on
3 the Site 1 ROD.
4 The trouble is, to show you, this is the review
5 on the Site 1 ROD. It's 60 pages. And our comments are
6 not 60 pages, but what we did is we did a markup of the
7 ROD. So our comments are embedded within the ROD.
8 It's -- the legal term is redline strike-out. And there
9 are some comments and some questions and things also
10 included in there.
11 So we have provided the comments on the ROD.
12 And this is, you know, a major effort to get this
13 resolved.
14 And real quickly, to emphasize -- one of the
15 most significant -- again, to respond to your question
16 here, and without taking too much time, Mary Lou,
17 probably the most significant, based on the volumes of
18 the comments and the general subject area, the biggest
19 problem EPA has with the Site 1 ROD has to do with these
20 ARARs, and in CERCLA terminology it's for the
21 appropriate or relevant and -- excuse me.
22 MR. TYAHLA: Applicable.
23 MR. RAMSEY: -- applicable or relevant and
24 appropriate requirement.
25 So, these are closure laws that apply to any

1 pulling the soil out and removal based upon whatever our
2 presumptive remedy is?
3 MR. RAMSEY: No. It's an evaluation of what
4 laws that apply to the closure of landfill are either --
5 directly applied. That's the appli- -- applicability.
6 They directly apply.
7 Now, we already know this landfill ceased
8 operation before laws that apply to both the municipal
9 or a hazardous waste landfill were in effect. So none
10 of the laws that apply to the closure of a municipal or
11 a hazardous waste landfill apply directly to this site.
12 What does that mean, though? So we say -- so
13 these regulations, laws, these ARARs, things are either
14 applicable or they're relevant, appropriate, and it's
15 really not both.
16 And the other way it's important, from a legal
17 standpoint, is when these laws are not applicable, the
18 relevant and appropriateness has a little different
19 level. They're not as -- it means it's not as -- you
20 know, how do we apply those? It's a little more
21 grayness to their -- the way they relate.
22 MR. SKAREDOFF: How does this connect with
23 something that's going to actually happen at the site?
24 MR. RAMSEY: How does this connect is people
25 have asked before about the classification of the

1 remedy selection, the ARARs analysis. The ARARs has
2 been a subject of the original dispute last year on the
3 ROD, and it's an area that the attorneys focus heavily
4 on because it's really important. And so our attorneys
5 are very much involved, and, therefore, we have lots of
6 specific comments in this document suggesting either
7 deletions or changes to those -- those analyses.
8 MR. SKAREDOFF: If we were to go out and look
9 at this landfill site, what could we see, or what would
10 be different in which way these discussions about the
11 ARARs went? What kind of effect would it have on the
12 actual ground, what's happening on the ground?
13 MR. RAMSEY: I'm not sure I understand your
14 question.
15 MR. SKAREDOFF: Well, I guess we've got these
16 applicable -- and what is the rest of it now?
17 MR. RAMSEY: Applicable or relevant appropriate
18 requirements.
19 MR. SKAREDOFF: Okay. I guess those have to do
20 with defining what's going to be done at the site.
21 MR. RAMSEY: The ARARs analysis says what laws
22 apply to that remedy.
23 MR. SKAREDOFF: Okay.
24 MR. BOYER: You're making a legal
25 interpretation of what would apply to a soil cap versus

1 landfill, and I think there has been lots of discussions
2 that have been -- that there has been this determination
3 about the landfill being a municipal versus a hazardous
4 waste landfill.
5 And from the legal way we look at the site, it
6 wasn't that there was discussion about was the landfill
7 municipal, or is it a hazardous waste landfill; it's a
8 discussion about what laws best fit this landfill. And
9 so when we go through the ARARs analysis, it was
10 determined that the closure requirements for municipal
11 landfill best apply to this site as opposed to hazardous
12 waste landfill, which is like multiple -- you have these
13 high-tech liners --
14 MR. SKAREDOFF: That's a point of agreement
15 between the Navy and EPA, that you both agree that it's
16 a municipal --
17 MR. RAMSEY: This is what we're -- we're trying
18 to get there on the ARARs analysis. And, see, we're
19 still -- we're not ready to sign this ROD because we
20 still don't agree to the way they have written the --
21 their ARARs.
22 MR. SKAREDOFF: Okay.
23 MR. RAMSEY: And I think when you go through --
24 MR. SKAREDOFF: I think there's basic
25 agreement, though, that the way this thing is going to

1 be dealt with is as a municipal site. Is that --
2 MR. RAMSEY: We agree with the Navy that the
3 municipal landfill closure requirements are more
4 relevant and appropriate, correct.
5 MR. SKAREDOFF: And now the discussions are on
6 the fine points of which laws apply?
7 MR. RAMSEY: And how you -- how you describe
8 that analysis. And if you clearly say that that law is
9 applicable, or is it relevant, appropriate, there is
10 lots of comments from the attorney in there regarding
11 these ARARs, asking that specific question.
12 MR. MEILLIER: And these legal requirements
13 originate from multiple agencies. Like, EPA has a set
14 of ARARS, the Regional Water Quality Control Board has a
15 set of ARARS, the -- the Waste Management Board has a
16 set of ARARS, the Coastal Commission has a set of ARARS.
17 MR. SKAREDOFF: So you have to sift through all
18 of these and figure out which ones apply, and on the
19 basis of that, that's going to affect what actually is
20 going to happen out there?
21 MR. TYAHLA: No.
22 MR. SKAREDOFF: I guess I'm trying to figure
23 out what's going to happen out there.
24 MR. TYAHLA: Let me get give you what, really,
25 the bottom line is -- is even without having been

1 through all the comments.
2 By the way, the EPA put a note in there that
3 they wanted to hear back from the Navy in two weeks or
4 less, and we're late. We didn't give them a reply yet
5 in writing. We need to do that.
6 But, in essence, you know, we got a preliminary
7 reaction from our lawyers. For a lot of the comments
8 you get back regarding ARARs we disagree with, they are
9 probably things we don't want to change. So, it doesn't
10 mean -- you know, on both sides we have to deal with our
11 lawyers and make them happy. So at one point I can see
12 us getting in a meeting and saying, okay, here's the
13 comments on the ARARs. Here's what we think of them.
14 We're going to have to come up with something to try to
15 get together so we have a signable ROD.
16 Is that going to affect the remedy? No. We're
17 still going to be -- you know, we aren't going to change
18 the final remedy selection. What we're looking at doing
19 is really making a ROD something, you know, everybody's
20 happy to sign.
21 And in speaking to my lawyer it's -- what I
22 found interesting was -- he even told me, you know, it
23 might not make a difference to you, but somewhere down
24 the line there might be something we leave in a ROD or
25 an ARAR we're not going to like later on. So who knows

1 how far down the line that will be.
2 But in a way it's kind of like a little above
3 and beyond, you know, my mind. The RPMs here, we have
4 to get our counsels involved. We have to meet and make
5 everybody happy with the language. So, it could be --
6 the response back to EPA could be that we may have to --
7 be forced to go to informal dispute just because that's
8 part of the process. We get something back we don't
9 agree with, we have to do that at this point.
10 But I think talking before with Phillip, it's
11 something we're going to get together on, try to reach
12 agreement on how do we get this thing -- the language
13 right so everybody's happy with it. That's where it's
14 really at.
15 So the next thing for me will be talking to my
16 lawyer and probably get at least a preliminary -- a
17 piece of correspondence saying, yes, looks like we're
18 going to have to discuss changes with you kind of thing,
19 but that's really where it's at.
20 MR. O'BRIEN: Do you have a response to that,
21 Phillip?
22 MR. RAMSEY: Well, I agree we're going to need
23 to talk. That's one thing.
24 What we asked for in my letter was we gave the
25 Navy -- asked them -- what Steve referred to was we had

1 asked that the Navy within a couple weeks let us know
2 what their intent is. We need to know if they recognize
3 that there is quite a bit of comments in this ROD.
4 And at this point the draft final version
5 primary document we can't -- we're not to going keep
6 flipping and flopping, like we'll wait another month,
7 and the Navy will give us a big response, and we have to
8 look at it. That's not the way the process works per
9 the FFA, the Federal Facilities Agreement.
10 At this point what the -- what the Navy needs
11 to do is either say we're going to make all these
12 changes, or there is some things we have some problems
13 with, and we need to sit down and talk about that,
14 figure it out and work through those to see if we cannot
15 resolve them informally at a lower informal -- either
16 with Steve, myself, potentially our managers being
17 present, or if we have to start moving to a more formal
18 mode to resolve this, which is where we write up what
19 the dispute is, make sure we're in agreement of what the
20 disagreement is about.
21 And this -- if you don't -- if you don't do
22 that, what happens is this gets elevated to people that
23 are beyond our control. And if we don't have -- it
24 needs to be written down because other people -- if it
25 moves to formal dispute, it's out of our hands. It goes

1 up the chain to other managers. So we need to write
2 down and make sure we both understand what the
3 disagreement is for everyone else. And that's the
4 informal dispute resolution process.
5 And we certainly hope that won't happen, and
6 we're certainly prepared to sit down and be more than
7 happy, we're willing, at the Navy's convenience to meet
8 with them to start talking about this.
9 If there is no other questions on the ROD, just
10 real quickly, just one other comment I have. I just
11 want to mention on behalf of DTSC -- you may notice that
12 Jim Pinasco is not here tonight. And I just want to, on
13 behalf of Jim, let everyone know that I spoke with him
14 this morning. We were aware he wasn't going to be able
15 to make it tonight. And on behalf of the State and Jim
16 I just want to -- you know, Jim wished to, you know,
17 express his apologies for not making it here tonight.
18 As everyone's aware, the State of California is
19 having some slight economic problems, and DTSC as a
20 result has been forced to kind of curtail some of their
21 travel. And being that tonight was a primary training
22 session, Jim felt it would be an easy session to miss.
23 And I think in the future we're just going to
24 have to see how things work. I think that he is
25 anticipating to try to be here more. Probably we're

1 generated by UST sites.
2 And we discussed this, as well as I also
3 pointed out that we need to have a Non-DSMOA UST site
4 representative at the UST meetings because we usually
5 don't have the Navy's support. It's kind of impeding
6 the process.
7 And then, lastly, I issued two letters, one of
8 them being the -- the comments letter on the tidal area
9 landfill for Site 1 ROD, and then the other one has been
10 UST Site E1-11 SAP, Sampling and Analysis Plan. And
11 that's about it.
12 My comments like -- and I believe that you
13 received them electronically -- for the Tidal Area
14 landfill were focused primarily on two issues. One of
15 them being technical issues in terms of geology and the
16 groundwater and in terms of its contamination and the
17 impacts it might have upon the other sites.
18 And the other comment is a comment that relates
19 to making sure that if it is found that there is
20 contamination in the adjacent site, that we need to
21 reopen the remedy and Site 1 ROD to prevent any exiting
22 or leaching of those contaminants that would affect
23 either the Bay or the adjacent sensitive areas.
24 So, that's kind -- you know, I think it's about
25 two and a half pages of comments relating to these

1 going to see some reduced attendance on the part of Jim,
2 in the short-term, anyways.
3 And I think that that was all. Yeah. Thank
4 you.
5 MS. WALLERSTEIN: Okay. Laurent Meillier.
6 MR. MEILLIER: Quickly, just as an update, I'm
7 on jury duty on a criminal case, so I might not be as
8 productive as I used to be for a while, although I think
9 we're going to be able to deliberate this week, I hope.
10 Let's see, in terms of the meetings I attended,
11 I'm not going to repeat the types of meetings, but, you
12 know, I was very happy that the Navy is considering
13 adding three more wells -- groundwater monitoring wells
14 at the Litigation Area, and they are also planning to
15 perform groundwater sampling for VOCs at Site 29.
16 As already mentioned, we also discussed the
17 ARARs, and especially the ARARs that are dear to me,
18 which are related to the groundwater remedy. And we
19 also discussed during that Site 1 ROD meeting if there
20 were any jurisdictional wetlands within the tidal
21 area -- the landfill, tidal area landfill.
22 And I had also a UST RPM meeting where we
23 discussed the Geotracker Upload, which is a State
24 database, which there is an assembly bill that requires
25 RPs, responsible parties, to upload all data that are

1 issues.
2 And that's about it.
3 MS. WALLERSTEIN: Okay. Thank you.
4 MR. MEILLIER: Thank you.
5 MS. WALLERSTEIN: Okay. The last agenda item's
6 five minutes, agenda for the next meeting.
7 We've already actually gone over that a little
8 bit. We'll have the toxicology training. Peter Strauss
9 will be here to give a presentation on his Site 22
10 assessments. And I'm sorry -- yeah, Peter Strauss will
11 be here to give an update report, and then we'll have --
12 Steve will do a short briefing on the Site 22 SAP.
13 And I guess generally at this time we ask for
14 suggestions for any agenda items, but I think we have
15 enough.
16 But does anybody have any comments or questions
17 or additions on that?
18 Okay.
19 MR. RAMSEY: Actually, I'm not sure -- what I
20 was just kind of wondering if, in fact, is it the best
21 thing to present the comments on the Site 22 SAP prior
22 to getting the agencies' comments? I mean, I kind of
23 wonder --
24 MR. TYAHLA: We were brainstorming. We were
25 thinking that the draft SAP is kind of out there, and

the next RAB meeting is like about a week before the comments are due on the draft SAP. So you think we ought to wait until after we get the comments back? We're open. I mean, I just --

MR. COOPER: Is the purpose of presenting so that the RAB might understand and make comments in that last week? Is that the purpose?

MR. TYAHLA: Well, it's out there for comment now, but it would be a way to present just what's in that draft, realizing comments are still due.

MS. WALLERSTEIN: It's a briefing, not like a --

MR. TYAHLA: I'm talking about probably throwing a map up there and a table, you know, say here's what's in the plan, it's out for review. We expect comments due, you know, 14th October kind of thing.

MR. O'BRIEN: I would agree with Phillip. I am very disturbed that the tidal landfill comments have been handled in such a cursory way. I think they should have been the focus of a presentation tonight. We should have put off primary instruction. To me this landfill is critical. I'm very disappointed.

MR. RAMSEY: I understand. I'm hearing you, Mr. O'Brien. I think right know, Steve, we

appreciate -- I got a letter from you. I'm sure the Navy received that. There are other comments coming in, I believe, also then too. So, that's why I just mean to speak on -- you understand the Navy right now -- for the landfill they're still getting comments from -- they haven't received comments from DTSC. They're expecting comments from the RAB's TAGG contractor. So, they're also still on the part of receiving comments.

MR. BOYER: You're still in the collection phase right now, Steve?

MR. RAMSEY: I mean, they could respond, but they'd be responding only to EPA's and Regional Board's and certain public members.

MR. TYAHLA: The comments we received so far, we got your letter, and we know that TAGG grant, he's going to be commenting soon, and we have --

MR. O'BRIEN: I don't know if that's going to be possible considering the deadline that you've established, and I want that to be a matter of record here.

MR. RAMSEY: Of course, beware, if we do go into informal dispute, like with the last version, that's why we're still here. We had that previous.

MR. O'BRIEN: I said this early on, Phillip, that I felt we weren't getting the agency comments, and

finally it was decided at our urging that agency comments would be included here. And I just don't understand the cursory way in which the EPA's comments have been treated here. I have always valued the EPA's comments. I think they are significant, especially to this site, and here it's just -- it's treated in passing.

MR. RAMSEY: Well, I -- I -- I don't necessarily -- I don't actually agree with you. I don't --

MR. O'BRIEN: I was making this point in terms of the next presentation. I would like to wait until your comments are available.

MR. TYAHLA: Okay. Scratch it off the agenda.

MR. RAMSEY: I think we could talk with the Navy about it. We could kick this around and have discussions with Mary Lou about is there anything else. I mean, we have been doing the SAPs, we have the sampling plan. I'm not sure, I think we did talk about the -- there was, I believe, a discussion of the overview of the Site 31 Taylor Boulevard Bridge Sampling Plan even though the beginning of the field work has been delayed. I thought that was already presented.

MR. TYAHLA: That was.

MR. RAMSEY: You've had a discussion of the

Litigation Area data gap sampling work. You've got a briefing on the Site 13 and 22 perchlorate, explosives, all the results that have been generated.

The one thing the Navy could consider, even though we're also reviewing it, it's another -- it's the trouble when some of these things are being reviewed, you know, tidal area sites, is we've got an RI that we're reviewing. But then, again, we're still reviewing that.

MS. TYAHLA: Maybe just hold off.

MR. RAMSEY: I mean, I hear your comment that's why I'm wondering if the Navy presents these -- what happens, they present something, and then the regulatory agencies submit comments, and they guess it will fix it. It's like what's the purpose of that presentation? It's better to wait until they've integrated and received comments from everyone.

MR. O'BRIEN: Plus we're focused on that area, so we're taking it as a totality, and we're hearing all sides of it.

MR. SKAREDOFF: Are we talking about Site 22 here, or are we talking about the tidal area?

MR. O'BRIEN: We're talking about Site 22, but I'm -- I'm making -- referencing to the tidal area.

MR. SKAREDOFF: Okay. Help me understand

what -- where you're coming from, Ray. I can understand you want to wait until the agencies' comments have been integrated into the body of information on Site 22, so rather than have that presentation made next week (sic), wait until that happens.

You also mentioned the tidal area quite a bit. I guess I didn't follow exactly where we're headed with that.

MR. O'BRIEN: Well, I just wish that a major part of the agenda tonight would have been dedicated to the tidal area, especially EPA's comment.

MR. SKAREDOFF: Well, we did have quite a bit of discussion about the tidal area at a previous meeting.

MR. BOYER: Yeah, the one before that.

MR. RAMSEY: And I would, you know -- in the future, I mean -- Mr. O'Brien, I mean, we're always happy to talk about these things. The one thing that helps me is to know if I'm going to come into a RAB meeting, if I'm going to be expected to talk about things. I mean like the EBS. We provided comments last month on this Environmental Baseline Survey that was a document that will help -- it's a predecessor to any kind of leasing going on.

You know, it's good for us -- it helps me to

know when I'm coming in here if I'm going to be having to give a more -- it just helps me be more effective if people can let me know.

And what we've been mentioning is lately we come in and give a little update is all. And if that's what the RAB wants to hear, we're happy to give that. It's probably we do more things, but, you know, what we communicate here is only a portion of how EPA is represented.

We really -- we really think our written record is what's really -- what we rely on. I mean, that's more important, I think, than me standing up here trying to talk and explain these things.

Again, I'm trying to be the spokesman and generally talk about things, but my words aren't the written word of EPA in terms of the site. It's my attempt to try to respond to some of your questions and comments. It's EPA's written letters that actually really establishes more of the official record and the official comment on a given document.

But I'm always happy to talk about these things. It just helps if, you know, people want to give me a heads up, that helps us be more prepared.

Likewise, the time management. Generally you're given a pretty small little time frame to talk,

and I hate to take people's time here. We appreciate everyone that takes time out of their life to come to this meeting and be a part of this group, and we don't want to take advantage of that, you know, effort all the public members give by coming to these meetings.

MR. COOPER: It sounds like maybe it's a question that you're not going to be able to resolve tonight exactly what's going to go into the next meeting. So maybe you want to draft up something and then circulate it to the members of the RAB so that they can give you some feedback about, well, we like less of one thing or more of another, and Ray can have a chance to fully integrate his comments and his requests about things he's asked from Phillip rather than try to figure it out tonight.

It sounds like there is disagreement as to what people want to see. So maybe they need to -- you know, there really ought to be some dialogue about it.

MR. BAILLIE: Forgive me. I just assumed that that's -- I mean, we share the agenda with the cochair, don't we? And presumably the members and the cochair talk to each other. So I'm kind of assuming that's happening. If that's not what's happening, then I think it's good to encourage that.

MR. COOPER: Well, I guess my point would be

maybe be a little bit more explicit about the draft nature of this draft. Yeah, it's true it does have -- does get circulated, but in this particular case people have been saying a lot of different things that we can't possibly get it all into one.

So just try to get it out as soon as possible, but be aware that people are probably going to be requesting something -- something different or something more -- it seems like this one is going to be a little tougher to put together from what I'm hearing.

MR. MEILLIER: In the line of what Ray was saying, please let me know if you want the Board to give a presentation of their comments as well because the same kind of issue would come up. I need to kind of prepare myself.

MR. O'BRIEN: We've got to rely on our cochairs to realize these things.

And I think early on, long before you came, Margaret, maybe you're not aware of this, we said we wanted the agencies to comment here in these meetings. Their comments were important, also the ability to question the agencies.

MS. WALLERSTEIN: Well --

MR. O'BRIEN: I -- as a layman I don't understand all of this stuff.

I can't just pick up your document there, Phillip, and -- I won't understand it.

MS. WALLERSTEIN: Well, I think that's what we're working on here with Igor, and that's also why, you know, we're very anxious to get these trainings in, because now you've had the human health risk and the eco risk. So now when you pick up those documents, you have a better understanding of what you're reading. And that's why, you know, next time we have the toxicology, because we want you to be able to pick up these documents and at least have some level of understanding to be able to read them and, you know, understand what's going on and provide better comments and input.

And that's why the trainings were important. And that's why we actually tried to push having them through this period because there weren't a lot of documents coming out, but I guess there will be early next year.

But, you know, Mary Lou and I have discussed this, and, you know, actually, we're looking down the road at the next few months and what we're going to have on agendas and how to best serve the RAB.

MR. RAMSEY: What I was just going to offer is, I had done that in the past. I'm always willing. I mean, just people have to call. If you have questions

about something in my letter, I'm -- I'd be more than happy to answer questions.

Also, I had gone one time to a meeting at the Concord library with Evelyn Frietas, Marcus, and I think Mary Lou, you were there, and we went there to have a little chat about things. I'm willing to have a little side discussion, and would be more than happy to do so. You just have to ask me, and I'm more than happy to do that.

MS. WALLERSTEIN: And we're running up on time here. I think the transcription is over.

But for myself too, I mean, you know, E-mail me, call me, you know, whatever. You know, we don't have to limit discussions strictly to this meeting.

MR. SKAREDOFF: I guess I would like to offer an observation here in that I think that the site discussions that various of us have participated in can be very helpful. I do have an uneasiness about that in that the information distribution is unequal among the RAB members. So I guess maybe I would like to offer an idea. If there are -- especially if it's exchanges of E-mails, that this information be copied to all of the different RAB members so everyone is aware of these various information exchanges.

MS. WALLERSTEIN: Yeah, we can do that.

I guess one thing I can suggest, maybe if you and I are corresponding in E-mail and we develop a chain, then at some point I'll send the chain out to everybody, so we're not all deluged with E-mails.

MR. COOPER: Thank you.

MS. WALLERSTEIN: Are we ready to adjourn?

MR. MENESINI: I think so.

MR. RAMSEY: Margaret, were you not -- wasn't there an outreach activity scheduled later this month?

MS. WALLERSTEIN: Oh, yes, I'm sorry. We're going to be at the Alhambra Creek Watershed Festival on the 27th. And I didn't bring a handout, but I will E-mail everybody the date, time, and --

MS. HUNTER: (Indicating.)

MS. WALLERSTEIN: You have a handout. Good.

We will have a booth there manned by Joanna and myself.

MR. SKAREDOFF: There will be tours of the watershed conducted by me, and then we'll have the Martinez opera, and a rock singer, and kids singing, and the Martinez community choir. So, whatever your taste in music, I think we'll probably have.

MS. WALLERSTEIN: Okay. Do I have a motion to adjourn?

MR. SKAREDOFF: I will.

MS. WALLERSTEIN: Second.

MR. BOYER: Second it.

MS. WILLIAMS: All those in favor?

THE BOARD: Aye.

(Off record at 9:06 p.m., 9/8/03.)

CERTIFICATE OF REPORTER

I, JANINE P. GAMBLE, Certified Shorthand Reporter of the State of California, do hereby certify that the foregoing meeting was reported by me stenographically to the best of my ability at the time and place aforementioned.

IN WITNESS WHEREOF I have hereunto set my hand this 24th day of September, 2003.

JANINE P. GAMBLE, RPR, C.S.R. No. 10372

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