FINAL
MARE ISLAND NAVAL SHIPYARD
Restoration Advisory Board (RAB) Meeting Minutes

HELD THURSDAY, JANUARY 21, 2010

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, January 21st, at the Mare Island Conference Center, 375 G St., Vallejo, California. The meeting started at 7:04 p.m. and adjourned at 9:01 p.m. These minutes are a transcript of the discussions and presentations from the RAB Meeting. The following persons were in attendance.

RAB Community Members in attendance:

- Myrna Hayes (Community Co-Chair)
- Kenn Browne
- Michael R. Coffey
- Chris Rasmussen
- Jerry Karr
- Wendell Quigley
- Paula Tygielski

RAB Navy, Developers, Regulatory and Other Agency Members in attendance:

- Kelly Ryan (Tetra Tech)
- Steve Farley (CH2MHill)
- Cris Jespersen (Weston)
- Dwight Gemar (Weston)
- Neal Siler (Lennar)
- Gil Hollingsworth (City of Vallejo)
- Joshua Bernardo (Solano County)
- John Kaiser (Water Board)
- Elizabeth Wells (Water Board)
- Janet Naito (DTSC)
- Carolyn D'Almeida (USEPA)

Community Guests in attendance:

- Juan Caballero
- David Godsey
- Cindy Porterfield
- Jim Porterfield

RAB Support from CDM:

- Carolyn Moore (CDM)
- Doris Bailey (Stenographer)
- Wally Neville

I. WELCOME AND INTRODUCTIONS

CO-CHAIR HAYES: Welcome. I did have a phone call from someone this week who, for business reasons, was delving into our minutes. And he said they were the most fun minutes he'd ever read, and he said we must have a lot of fun here. Okay.

Well anyway, my name is Myrna Hayes and I am the Community Co-Chair for the Restoration Advisory Board here at Mare Island Naval Shipyard. And our good friends from the south, the Navy, have been stranded in San Diego. I got a call this morning, I imagine many of you did who were also having meetings with Michael and the team. And they had sat at the San Diego airport for two hours, and they were being told that maybe the earliest their plane could get out, if it would get out today, was 4:00 p.m., and that just wasn't really going to get them in here in a timely fashion. So I'd rather they be safe, and I think you'll agree with me. But thank you to everyone else who did get in their planes and fly up here and come out on such a dreadful night. So welcome, and let's take this chance to introduce folks starting here with Mr. Mike Coffey on my right.

MR. COFFEY: Thank you very much. Mike Coffey, a RAB member from the gorgeous City of American Canyon.

CO-CHAIR HAYES: I bet it's gorgeous tonight.

MR. FARLEY: Steve Farley with CH2M Hill.

MR. JESPERSON: Cris Jesperson with Weston Solutions.

MS. WELLS: Elizabeth Wells, Water Board Project Manager.

MS. NAITO: Janet Naito, DTSC.

MR. HOLLINGSWORTH: Gil Hollingsworth, City of Vallejo.

MR. BROWNE: Kenn Browne with the Solano group of the Sierra Club.

MR. KARR: Jerry Karr -- hello? Hello? Hello? Hello? I love you. Jerry Karr, Napa Solano Audubon, Vallejo resident.

MR. RASMUSSEN: This is why our minutes are so much fun. My name is Chris Rasmussen, I'm a RAB member and a resident of Mare Island.

CO-CHAIR HAYES: If we get it down to ten minutes we could do a YouTube. All right. Carolyn, you want to introduce yourself?

MS. D'ALMEIDA: Carolyn d'Almeida, EPA.

CO-CHAIR HAYES: And then if you don't mind, you're certainly welcome to be anonymous here in our large gallery, but if you'd like to introduce yourselves, you're welcome to.

MR. SILER: Neal Siler, Lennar Mare Island.

MR. PORTERFIELD: Jim Porterfield, ex-Mare Islander.

MS. PORTERFIELD: Cindy Porterfield, big, big fan of Mare Island.

MR. BERNARDO: Josh Bernardo, Solano County Site Mitigation.

MR. KAISER: John Kaiser, Water Board - DOD.

MR. GODSEY: David Godsey, Vallejo.

MR. GEMAR: I prefer to remain anonymous.

(LAUGHTER.)

MR. GEMAR: Dwight Gemar with Weston Solutions.

MR. NEVILLE: Wally Neville, RAB gopher.

MS. MOORE: Carolyn Moore with CDM.

CO-CHAIR HAYES: And Kelly Ryan with Tetra Tech. Well, welcome everyone. And speaking of Kelly Ryan with Tetra Tech, I'd like to invite you up here, Kelly, now, to tell us a bit about Installation Restoration Site 04, IR-04 Update. And you'll recall that it's down there somewhere on the south end of the island near the edge of the strait. And Kelly's going to tell us what she knows about the Draft Final Remedial Investigation Report.

II. NAVY PRESENTATION: *Draft Final Remedial Investigation Report for Installation Restoration (IR) Site 04 Update*

Presentation by Ms. Kelly Ryan, Tetra Tech

MS. RYAN: Thanks, Myrna. Hi, everybody. Just want to make sure that you do have both of these handouts because I think probably the figures may be difficult to see in terms of detail. So make sure you do have both handouts for the presentation. My name is Kelly Ryan, I'm with Tetra Tech. I'm the project manager on the contractor side for this work. Jackie Dunn is the Navy RPM, and she was supposed to be doing half the presentation tonight with me, so bear with me because I am doing both parts.

Just to sort of orient everybody, the report that came out January 8th, this month, is the revised Draft Final Remedial Investigation for IR-04. And it is the revised draft final because back in 2006 the draft final report was issued, and at that time the work was put on hold because there was the opportunity to execute the TCRA, which I think the RAB is pretty familiar with, that is the work that was done by Weston removing the sandblast material from IR-04.

CO-CHAIR HAYES: Just to make your talk longer, you can't use acronyms.

MS. RYAN: Oh, okay. So that's the Time Critical Removal Action. And that work was done. And now we prepared the RI report, the Remedial Investigation report, so that it encompasses that removal, and it also updates the Human Health and Ecological Risk Assessment work that was done. Because at the time the draft report was prepared, we're talking 2002, it's eight years since, there's evolution in these processes. So that was also updated as part of the revised draft final report.

So in terms just of a quick overview I'm basically going to talk background material first, about the site itself, and then leading up to the current conceptual site model. Talk about the nature and extent of contaminants at the site, the results of the Human Health Risk Assessment and Ecological Risk Assessment. And then talk about the conclusions and recommendations for the site, and then the schedule looking forward.

So this is the first figure. This is the IR-04 site map. If you look on your figures you can see on the inset where IR-04 is on Mare Island. As Myrna said, it is, you know, pretty far down on the south end of the island. Some key site features I want to point out while I have this figure up.

This is the outline of the site. It is divided into sub areas. This area is the wetland. You can see this line here represents the paving at the site. This aerial photo is from 2004, so this is all -- the paving is altered slightly because of the removal action, and you'll see that in a later figure. But it is largely representative of the site.

More than half the site is paved. We have key buildings here; Building 1300, Building 900. There's some buildings that are associated with the electrical transmission lines that come in. There's one tower here and another tower here. And then you can see there's another project, which you'll be hearing about later this year, in purple. This is the J-Line work. And this hatched area represents part of the property that is included in the Eastern Early Transfer Parcel. Okay.

A little history. In 1900 this was a tidal wetland. By 1932 about two to twelve feet of fill had been placed at the site. Fill came from either native soil from the hillside above or dredge spoils. At that time the site was being used for storage, lumber, anchors, buoys. By 1944 -- and this information was gleaned by looking at aerial photos, historical aerial photos of the site in addition to other sources -- by 1944 that electrical transmission tower and buildings were present. Railroad spurs had been built at the site, and a significant part of the site was paved, as I showed you in the figures before. Between 1950 and 1980 what was done at the site was largely components of dry dock ships and submarines were sandblasted and then repainted. In 1955 is when Building 900 was built. In Building 900 there's spray paint booths. In 1975 Building 1300 was built, and that is a paint shed. And basically painting outside of that occurred on the asphalt. And there were also dip tanks associated with that building. Also in 1975 the sandblast enclosure was built. If I can go back here. You see this sort of U-shaped thing, this is the sandblast enclosure, and sandblasting was taking place outside, and there was an enclosure built around it to sort of control the sandblast material. In 1992 both of those activities moved up the shipyard to Building 750 which is up in Investigation Area C-2.

There's a lot of work that's been done in IR-04. What you can see up here is a list of ten different studies that have occurred to date. The first list is PA/SI level work, Preliminary Assessment and Site Inspection level work. And then the latter is Remedial Investigation level work. So there's a lot of different studies that have been completed at the site.

And what that looks like is this figure. So we have a lot of samples. A total of almost 500 soil samples, 72 sediment samples, and 49 groundwater samples. Now, you can't see it on this figure, but in your figure in front of you you'll also see the locations that are grayed out, those are locations where samples were taken, but in terms of removal actions -- the Time Critical Removal Action, those samples were removed. Now, each one of these borings is a location where samples were taken, but there may be one sample taken there or multiple samples. This is just the location of the sample boring.

Two key previous actions that were conducted at this site was first in 1998 the UXO or Unexploded Ordnance Intrusive Investigation. Now, there isn't a history of ordnance storage or use at the site, but it is adjacent to F1, the Ordnance Manufacturing Area, so it was looked at the same time as the Ordnance Manufacturing Area. And when this work was done there were 260 discrete magnetic anomalies that were investigated. None of these turned out to be an ordnance, so this site is now no longer considered part of the onshore ordnance program. However, one of those or some of those magnetic anomalies turned out to be the Paint Can Pit. And in there,

there was a variety of different debris including paint cans, filters, compaction material that was removed, and some of the soil was overexcavated at the time.

CO-CHAIR HAYES: Kelly, I just wanted to note that at some point we received word from a gentleman in American Canyon who had actually kind of had on his conscience that they had placed all that paint waste material there. And about the same time you began to -- or had discovered this within this investigation, he had gone to the newspaper, the Vallejo Times-Herald reporter, and actually confirmed that site. But that was a good example of what the public can do to be helpful to us. And it's kind of hard when shipyard workers thought, well, think they still shouldn't talk about what went on here. But it's really helpful, if you hadn't known about it, it would have been very -- a big part of this process.

MS. RYAN: And like I said, it was sort of, you know, a lucky accident in that other things were being investigated, this was found, and it was dealt with at the time. I just wanted to point out where it is, the Paint Can Pit. It's this area right here, Subarea 2. And then the second action is the Time Critical Removal Action that I talked about before. And 29,000 cubic yards of sandblast material was removed from the onshore part of IR-04, and then this material was placed as part of the subgrade in the engineered landfill cap system for Investigation Area H1.

And so looking at this figure, this is a figure from the remedial investigation report. And the figure has two purposes in the report. So these blue long lines are just showing locations of cross-sections. What I'm focused on here is just showing the extent of the removal action. And you can see from the colors, the gradation, of how deep the different parts of the excavation went. The lightest colors are down to two feet. You go all the way down to the deepest at 16 feet. And so here's where the onshore sandblast material was removed. So you can see this would change the site data quite significantly. So this is why the Remedial Investigation Report was updated.

CO-CHAIR HAYES: Kelly, what's a geological cross-section?

MS. RYAN: It's kind of like slicing a cake. So where those blue lines are there's slices where you can then look at the cross-section. I didn't include those tonight, but they are in the report, so if anybody wants to look at them during the break I brought the report with me and the figures are available.

MR. COFFEY: I still don't get what that means.

MS. RYAN: In order -- it's being able to slice down into the ground and look from the side so you can see each layer of the top soil down into the different types of material. And at Mare Island it's useful because we have native material, we have fill material, and it can help you visualize where the fill material is and where the native is. And basically groundwater will behave differently in those two different types of soils. So it can be very helpful. And cross-sections also typically show where the groundwater is located. So that leaves us -- or helps us arrive at what we consider the conceptual site model for today. This darker brown shows where the onshore sandblast material was removed and backfilled with clean fill. This lighter brown is the Paint Can Pit where material was removed and backfilled with soil. These are -- yes, this does show a cross- section, if you will. So you can see that this is the fill material, native material, and then this is the bedrock of the island below. This is our wetland. These are the transmission lines I spoke of earlier. And our two key buildings, Building 1300 and 900.

In doing the remedial investigation you're basically trying to answer a few big questions: Do we have a problem in the soil? Has it migrated to the groundwater? Have we adequately characterized it so that we know the extent of the really impacted areas? When you have that data, then what does that mean in terms of human health and ecological risk? And based on that, do we now think we need to take further steps, look at this in a feasibility study to evaluate what might be the options to clean up an area that is problematic. So in a very broad sense I'm going to go over the nature and extent of soil impacts. Because of those two earlier actions, the removal at the paint can area and the removal of the sandblast material, some of the big problems that the area had have either been solved or improved. So that's the good news.

We still have remaining problems with chromium, nickel, and lead. In particular, those are usually associated with the sandblast material, the lead more with the paint, but the chromium and nickel is found in the sandblast material itself. And those impacts are largely seen in the wetlands still because of that big removal on shore. And I'm going to point out, there's a small border with the wetland and the onshore where there still are some elevated metals. There's also volatile organic compounds still in the soil. Those are again associated with the paint can removal area, that's Subarea 2. Subarea 2 also has a few problems with metals. They are either associated with the paints or with some sandblast material that is still there. There's still elevated metals. So the take-home message for the soil is metals and volatile organic compounds are primary problems that are causing risk at the site, and they are both located in Subarea 2, which is the Paint Can Pit area, and the metals are still in the wetlands. There are a few sporadic hits with PCBs, polychlorinated biphenyls and polycyclic aromatic hydrocarbons or PAH's, but those are not big contributors to risk.

So looking at this figure, this will really show you where the metals problems are. Chromium, this is the figure from the RI, Remedial Investigation Report, that shows the chromium. Chromium is the most pervasive of the metals. So if you look at where nickel or some of the other metals are impacting, they are within these areas that are targeted with the chromium. So on your figure what this shows, the gold borings are the locations where we have chromium over the human health risk number, which is 1,400 [milligrams per kilogram, mg/kg]. And then where we have the blue it's where the concentrations lie between what is ambient, an ambient level of chromium for Mare Island, and up to but not exceeding the 1,400 [mg/kg]. So what it clearly shows is we still have a problem in the wetland and, in particular, we have a problem right along this border. So while the removal action was very effective up in this area, this area that was very close to the water and close to the wetland, and so that's why the removal action stopped there, still needs to be addressed when we address the problems that remain in the wetland. You'll also see that there is a point right up here. We do have some green sand associated with the black fill around the utility corridor. And you can see the purple represents the utility corridor, that's what that one hit is.

Looking at groundwater, our primary problem is VOCs, and they are located in that same Subarea 2. And there are a lot of things listed up here, but basically what we have here at the site is there's trichloroethene, and then you have compounds that result as a breakdown of that. Trichloroethene has three chlorines. As it degrades in the environment, then you end up with compounds that have two chlorines, like the cis- and trans-dichloroethene, and it degrades again, you end up with compounds that have one chlorine, vinyl chloride. Unfortunately, vinyl chloride is the worst up there, but it's the last step until that compound breaks down.

Now, one of the things that's important to note with the VOCs that we do have in groundwater is that there is strong evidence of natural attenuation which is the breakdown of the original product that was disposed of at the site, which is the TCE. And there's two things: One, you're seeing these, what you call daughter products, decay products. And then, in particular, the one well, 04W04B has shown a 90 percent decrease in the TCE concentrations, which is good.

CO-CHAIR HAYES: Does that include all of its breakdown products?

MS. RYAN: No, darn it, those things are still higher. The TCE is degraded, but what you have is once that degrades, the other things get bigger. And so basically it's not necessarily that it is, at this point in time, better off, but it's on the road to improving because of the breakdown.

Now, this figure is quite busy, I realize, but what it is showing you is information for the wells over time. So if you can see in the parentheses, that is giving you also the date of when those samples were taken so you can see what is happening in those wells over time. And there, these wells were all removed when the recent Time Critical Removal Action was done, but at the time when these were monitored, you can see our problem was still very much located in the Subarea 2, which is where the VOCs are. And then the outlying wells; if they're green, that means nothing was detected; or if they're in blue, that means we have some low level detects. Okay.

So, Human Health Risk Assessment. There are many different guidance documents that go into how we prepare the Human Health Risk Assessment, and it is both federal and state. I've listed what is an overarching primary document that's used in preparing the risk assessment, but there are many, many guidances that go into producing the Human Health Risk Assessment. The first step is looking at site specific information; in this case looking at future use, which is industrial for the uplands, open space for the wetlands and groundwater. Our groundwater has a lot of total dissolved solids in it, and it also doesn't pump from the wells very fast. They basically, when you pump them to sample them, they go dry. So it does not meet the criteria for a potential drinking water source. And then because we have volatile organic compounds we need to look at modeling the inhalation pathway. So the site was divided into sub areas. There's two Subareas, 1 and 4. Those are the upland areas around Building 900 and 1300. Those were basically done together. They were originally split out because they represented the work that was happening at the two different buildings. The VOC Subarea 2 is really located right around that paint pit. And then the remaining Subareas, which is 3A and 3B. 3A is the upland area, and 3B is the tidal wetland. So it was separated on the type of use for those sub areas, and on the contamination. And then we incorporate the best available toxicity criteria from federal and state sources.

So to explain a little bit about the risk scenarios, because there's going to be numbers associated with these. When you're looking at commercial industrial current and future use, you look at a commercial and industrial worker in the site as it stands today, and that's called the minimal disturbance scenario. Then you look at what happens if the site is redeveloped, and that's called the intrusive development version of the industrial work. And then you also look at a construction worker who would be involved in doing that redevelopment. The last item on there is the recreational user. So for the wetlands, those are not going to be redeveloped, they're going to stay as is, but there could be recreational use of those.

The Navy also does an evaluation of residential exposure, and that is to look at whether or not the property ultimately can be released without any restrictions. In the sense if this is going to be planned to use for industrial use, so there would be restrictions that this area would be used for

industrial use. Then we characterize the risk. There's three different ways that risk is evaluated. First is the cancer risk. And you're looking to see whether the cancer risk that you estimate is below or within the EPA risk management range of ten to the minus six [$1x10^{-6}$] to ten to the minus four [$1x10^{-4}$], whether or not the hazard index, which is a measure of non-cancer effects, is below one, and whether or not your lead is below what is considered the target concentration for an industrial area or residential area.

So these are results for the sub areas. As I mentioned, 1 and 4 were done together. And you can see that in terms of those three different measures of evaluating risk, we are meeting or below the criteria. In Subarea 2, which is the VOC area, the volatile organic compounds area, we do have problems showing up here with the hazard index being over one. We do have lead above the target level. In 3A, this is the upland portion of the site that's not paved, we are meeting or below the criteria in all three cases. And then, as you can see, this is the minimal disturbance, intrusive development for the two different workers, and then our construction worker here.

In the case of the wetland only the recreational user was evaluated, not these three, because, again, there would be no construction or development of the wetland. And here again we are then either meeting or below the criteria. So in terms of the human health risk, the message out is that Subarea 2, the area with the volatile organic compounds, is the area with the problem. Looking at the Ecological Risk Assessment methodology; again, there are lots of different guidances that go into how the Ecological Risk Assessment work is done. These are three primary sources -- primary sources for this evaluation. We start off with problem formulation, determining where there is existing habitat, where there's going to be habitat in the future, evaluating the different exposure pathways. These are all the different pathways that are looked at in the Ecological Risk Assessment, and that's including inhalation. Then the next step would be to determine representative receptors for all of these different groups, plants, invertebrates, birds, and mammals. And this is done in discussion and in negotiation with the regulators. And then, lastly, we do the actual risk characterization, the calculation. And there's an important benchmark difference. When you are looking at plant and animal populations, you're usually looking at what would be protective of the population itself. When you have an endangered species like the salt marsh harvest mouse, then you're looking at what would be protective of the individual. So it's a different focus for those two different groups.

So, in summary for the Ecological Risk Assessment, again by sub area, Subareas 1 and 4 are paved. They don't have a habitat, they're not planned for a habitat in the future, and so there aren't any receptors there. Looking at sub area -- once we get into these areas, these areas are unpaved or partially unpaved. In Subarea 2 we do have plants, invertebrates, birds, and mammals that are all showing elevated risk due to the volatile organic compounds in metals. Subarea 3B -- this is the wetland, we're showing risk, elevated risk to these groups, again due to the metals. Now in 3A is the upland area, there is a border right along the edge; that part is problematic and needs to be included with the wetland. But once you take that part out, the rest of the area shows acceptable risk for those different ecological receptors. So overall conclusions and recommendations. For Subareas 1, 3A, and 4, this is the paved upland areas and the upland unpaved areas, the recommendation is for no further evaluation.

We have either human health or ecological risk that's within or below the criteria that we're looking at judging it by. In Subarea 2 we still have a problem with VOCs and metals, and we are showing elevated risk to both human health and ecological receptors, and so a feasibility study is recommended for this area. And then, lastly, Subarea 3B which includes that border with 3A.

Metals are contributing to an elevated risk to ecological receptors, and a feasibility study is again recommended.

So on the figure that looks like this, this is our paved areas, this is the upland, this is the border area of 3A that needs to be included with the tidal wetland, and this area and these two are recommended for a feasibility study. Looking forward in the schedule, this is where we are right now in the Remedial Investigation Report. And that was issued on the 8th, and it's undergoing review right now. Comments are due by March 15th. And then moving forward, we have the FS, Proposed Plan and ROD. Any questions? Yes.

MR. KARR: On your Figure 3-3, all the VOC concentrations of groundwater, I see the most current data is seven years old.

CO-CHAIR HAYES: I was just going to ask that.

MR. KARR: How can you base your protocols, response, anything on data that old?

MS. RYAN: Well, the hope is that by now it should actually have improved, so we should be actually looking at a worst case scenario than what we have today. It is an issue that needs to be addressed in the feasibility study absolutely. There is likely a need for some, you know, looking at whether or not we need to put in and collect some more recent groundwater data. At this time, because of when they did the removal action, all of the wells were taken out. So there aren't any wells, and there haven't been since the removal action began in 2007.

MR. KARR: So you're content to press on with data this old? I mean, I see it as a potential that due to some natural attenuation, that some of these numbers may not be as bad as they appear now. I mean you're -- all of the parties are happy to base on a worst case scenario? I guess that's a good thing, but it doesn't seem how you run a railroad.

MS. RYAN: I am agreeing with you. I think what the conclusion is that because of the VOC levels that were there, it's unlikely that they've completely dissipated. We probably have something still there.

MR. KARR: Sure.

MS. RYAN: And it is a very likely outcome that the feasibility study would say that we need to have more recent groundwater data. In our opinion I don't think it needs to be done now for the remedial investigation because of the levels that were there to start off with. It's unlikely that you would be a hundred percent ruling the site out. And it's probably going to need that evaluation. There are other problems in that area with the metals, so you could sort of wrap it together, do it at the same time and kind of just keep moving forward. But you're absolutely right, there's good reason to suggest basically, even over this one year of monitoring data, that natural attenuation is occurring, especially when you consider that all of that source area material was removed. So I think it could be very valuable information moving forward. But I really think that because of the other problems, we could do it in the feasibility study.

CO-CHAIR HAYES: So your end product of vinyl chloride is pretty nasty stuff to the environment, yeah?

MS. RYAN: Actually vinyl chloride in terms for the environment, it's very -- it's not good for human beings to inhale. It's toxic for us. In terms of if it is dissipated and released to surface water, it is such a small compound that it vaporizes quite quickly. So it is far worse for us.

CO-CHAIR HAYES: Didn't we have this problem at IR-15 where it was converting, degrading to vinyl chloride, and that wasn't an exposed human health risk, wasn't it considered an ecological risk or not nice thing?

MR. FARLEY: No, it's primarily a human health driver as she just said. It's -- at IR-15 -- and this is all very preliminary. But at IR-15 it's, the kind of scenarios are trench workers and utility workers and that sort of thing.

CO-CHAIR HAYES: Oh, okay.

MR. FARLEY: But typically it's not the eco-receptors.

CO-CHAIR HAYES: Okay. So would workers or were worker at risk when they were removing that -- doing that Time Critical Removal Action?

MS. RYAN: Not in open air. Where it becomes a risk is in the enclosed structure. So if you, when we were doing risk modeling for, you know, future, you're talking about an enclosed structure in indoor air where it would build up and, you know, you're just filling the balloon.

CO-CHAIR HAYES: And then you did mention that, in answering Jerry's question, that regardless of what your VOC status is, you still have likely some remediation to do with the metals, they're not going to in situ probably get good?

MS. RYAN: Right.

CO-CHAIR HAYES: So if you did have any residual issues with the VOCs, you would likely address the source if you did remediation, or when you do remediation for those other elevated metals areas?

MS. RYAN: Right. You would want to combine it, because actually the Subarea 2 is a pretty small area.

CO-CHAIR HAYES: How small is small?

MS. RYAN: Yeah, right. Right.

CO-CHAIR HAYES: How many acres?

MS. RYAN: Well, relatively speaking --

CO-CHAIR HAYES: Like is it acres or --

MS. RYAN: No.

CO-CHAIR HAYES: No.

MS. RYAN: It is a very small area compared to the whole site. The surface -- the soil and the metals problems at Subarea 2 are largely surface, and the VOC problem is subsurface. But before you go and start digging to solve one problem, you would want to know what you're going to do and how you're going to tackle the VOC problem. And part of that might require additional information.

CO-CHAIR HAYES: On the tidal wetlands, are those what we've always known as the green sand beach?

MS. RYAN: Yes, it has been referred to as that, yes.

CO-CHAIR HAYES: And that has always or historically -- and again, Jerry's made a good point that your data was seven years old, but -- and so maybe our memories are only seven years old too here of this site -- but it was always my recollection or is my recollection that it was always considered to be very problematic about what you were going to do with this area because of the elevated metals but not -- and on the other hand not wanting to, if you could help it, destroy the marsh. So what is the -- what are your thoughts now seven or sixteen years later?

MS. RYAN: Unfortunately I don't think there are any better solutions to the problem. The metals are in the surface and that is the area that has all the habitat and the flora and fauna, so that's why you need to look at it in a feasibility study and see what can we do? Do we want to do this? Does it make sense?

CO-CHAIR HAYES: This being?

MS. RYAN: Dig it up.

CO-CHAIR HAYES: Dig it up.

MS. RYAN: Unfortunately, there's not a lot of solutions for metals.

CO-CHAIR HAYES: Well, Weston has a lot of good experience in replanting posies and things, so they could probably help you out on that. So --

MR. GEMAR: Dig it up.

CO-CHAIR HAYES: Dig it up and then put some more out there. Put some sprinklers on it. I don't think you'll even need that today. Okay, those are all of my questions.

MS. RYAN: Any others?

(No response.)

MS. RYAN: Thank you.

CO-CHAIR HAYES: I guess I should ask or would like to ask, is this area all contained within Lennar's development agreement?

MR. HOLLINGSWORTH: No.

CO-CHAIR HAYES: What is this property?

MR. HOLLINGSWORTH: Well, that property will be owned by the City. The possibility exists that once the entire thing is cleaned up, and if we are able to develop it, reasonably develop it based on the land use covenants that will probably be imposed on it, then at that point Lennar could make a business decision whether they want to develop it or not.

CO-CHAIR HAYES: Otherwise the City could --

MR. HOLLINGSWORTH: Then it just becomes a City piece of property.

CO-CHAIR HAYES: Some more of the City pieces of property. And that includes Berth 24?

MR. HOLLINGSWORTH: Yes.

CO-CHAIR HAYES: And the pier adjacent to it?

MR. HOLLINGSWORTH: Yes.

CO-CHAIR HAYES: All right. Thank you.

MR. HOLLINGSWORTH: Quite frankly, out of all that piece of property, the berth is probably the most valuable piece there.

CO-CHAIR HAYES: Unless you were the Army on the other side of that berth then you would not have any interest in it at all, it's a serious siltation problem going on there now that they fenced the silt in. Oh, hello.

MR. FARLEY: Pregnant pause.

CO-CHAIR HAYES: Where's Michael? Aye, yi yi.

If you have served on the RAB as long as I have, and a few of you have, you'll remember that I conducted all of these meetings for the years when my co-chair was Mr. Richard Logar. He detested getting up front, bless his heart. But I've been leaning on Michael and Jerry the last few years, it's been handy. So our next presentation will be by Mr. Neal Siler of Lennar Mare Island, and he has an ambitious task, unless you've really gotten a lot of work done, of reviewing, giving us an update on the Eastern Early Transfer Parcel cleanup.

MR. COFFEY: Tell Michael he can phone a friend.

III. PRESENTATION: *Eastern Early Transfer Parcel (EETP) Update*
Presentation by Mr. Neal Siler, Lennar Mare Island

MR. SILER: Well, thank you, Myrna.

CO-CHAIR HAYES: You're welcome.

MR. SILER: Okay. What I'm going to go over tonight is just give you an update of where we are on the Eastern Early Transfer Parcel. I'm going to talk about some of the major submittals, activities that we've performed in 2009, and talk to you about some of the things that we're planning on performing in 2010. And just to give you an idea of the Eastern Early Transfer Parcel of Mare Island, it covers about 672 acres. You can see the outline of the entire area right there. So the original consent agreement broke it up into eight investigation areas, A3, B, C1, C2, C3, D.1, D2, H2, but over the years as we've started to clean up the site and to develop certain portions of it, we've actually broken up a few areas into sub-investigation areas, so currently there are twelve of those investigation areas. Mainly that's occurred in the Investigation Area B; there's now a B.1, a B.2-1, a B.2-2. And then specifically in the Investigation Area D.1 there's a D.1-1, D.1-2, D.1-3. So those are the major areas where it's occurred.

Now, some of the areas that I'm going to talk about tonight, they're highlighted on this map here. You can see some of these areas in Investigation Area C-1. Crane Test Area is Investigation Area B.1. The Petroleum Corrective Action Plan Areas are actually in B.1 and B.2-2. Some of the buildings that are in the B areas, underground storage tanks, some of the buildings that we're going to talk about and a few of the unknown sites that we've come across in the last year.

So the Crane Test Area, the major things that we've done this year are look at the Petroleum Corrective Action Plan. We actually submitted that, got it approved, and that's been fully implemented. Weston's done a very good job of doing that. In the Crane Test Area we've excavated about 22,000 cubic yards of petroleum hydrocarbon impacted soil and debris that has been taken out into the H1 landfill and then interned out there.

CO-CHAIR HAYES: Interned, I like that, is it interred? 22,000, you said, cubic yards but you have here tons.

MR. SILER: Tons. It should be tons, excuse me.

CO-CHAIR HAYES: Thank you.

MR. SILER: And then the other thing that we've been working on outside of that area, this is the Petroleum Corrective Action Area, you can see down here in the lower right-hand corner, and that's the area that's been excavated. And we've met the cleanup criteria in this area. This is a view actually looking out to the west, to the Navy's property, of that entire area as it lays open in excavation.

And the other thing that we're working on is actually this area to the east of the Petroleum Corrective Action Area, which is covered by the Feasibility Study/ Remedial Action Plan for the Crane Test Area. And that, the major remedy is going to be a cap. But there are a few areas -- we actually did some additional investigations this year, and there's a few areas that we're going to excavate.

When you last saw this diagram it was very conceptual, it was part of the Feasibility Study/ Remedial Action Plan, and you just had a bunch of rectangles there. As we've done this soil -- additional soil gas sampling work, you can see that these areas have been expanded, and those are going to be removed. So the whole idea of this coming year is to actually complete the Petroleum Corrective Action Plan. All they really have to do right now is either final backfill lifts and get that taken care of, and then go ahead and implement the remedy out here in the eastern portion of the Crane Test Area once that's approved by the regulators.

Okay. In Investigation Area B.2, again this is another portion of the Petroleum Corrective Action Plan. You can see this area right down here. We excavated about 55,000 - 51,000 tons of material out of this area along Azuar Drive. And these pictures show the excavation when it was actually -- remedy was being implemented, digging it right here. One of the other things that we completed was the removal of the green sand that was associated with Underground Storage Tank Site 839. And we completed that action. So that's pretty much everything that we've gotten done, and we're hoping actually to be able to close out Investigation Area B.2-1 here in the first or second quarter of this year. So a few more things that we have to do in this area.

Since I had mentioned that we broke this up, we have a number of different things we have to do in B.2-2. This removal of this free phase petroleum hydrocarbon was only one of the things we have to do. We've implemented a PCB cleanup plan at Building 455. We've removed some pesticides and lead contamination at Building 803. We've done some additional investigations in this area. We had to go back and take some additional confirmation samples. We should have the results back in the next few weeks so we can go ahead and confirm or find out if we have to do additional work in that area. CH2M Hill is going to be implementing a PCB removal action in the storm sewer that comes out of Building 535, and actually a portion of this just goes into the B.2-1 Area. So we're waiting on this, and we should be able to close B.2-1 at that time as we do additional work in B.2-2. Okay.

The major accomplishments in Investigation Area C-1. Again, petroleum seems to be the issue of the year. We actually did a very large removal action at the Installation Restoration Program Site 03. And then we also did a removal action at UST 693. And we have some additional

things that we have to do in this area that we hope to implement this year. We're going to -- although we have an approved Removal Action Work Plan for Building 461 right here. This picture shows a good relationship of all the sites. This is Building 461 right here. This is Underground Storage Tank 693 site right here. And then this area down in here, this is the IR-03 source area. So we've removed petroleum hydrocarbon impacted soil from this area, from this area. We're still doing some groundwater monitoring in both areas. These pictures show -- this right here is IR-03 Site when it was completely excavated.This is backfilling at Underground Storage Tank Site 693. Both of these are about 18,000 tons of material removed from each area. And then the other thing that we have to do is implement the removal action at Building 461, and that is the battery acid precipitate, and then the lead soil that's been -- lead impacted soil underneath the battery acid precipitate.

In Investigation Area C-2, this probably is the most ambitious area, there's over about 250 sites that we're working on in this area at any one time. But some of the large ones that we've gotten most of the documentation done or implemented removal actions are the IR Installation Restoration Program Site 21/ Building 386, 88, 390 area. That's been approved. We're actually going through right now, selecting a contractor to do that work, and hopefully we can start implementing that in the first quarter of this year. We implemented removal actions -- excuse me -- at Industrial Wastewater Pump Station No. 6, which is right to the south of Building 1310. And this is that excavation right here, looking right over here to Building 680. Again, we completed the cleanup plans for Building 680, the PCB sites.

There are 48 PCB sites in Building 680, and we've got the plans approved, and they're actually in there right now working on those sites. And then we submitted a number of sampling and analysis plans for some sanitary sewer sites in Investigation Area C-2. There's a few in C-1. Oil houses and cisterns that are left over in Investigation Area C-2. And then some of the PCB sites that are in Building 742. So hopefully we can get all this implemented in this year. And that's our big goal is to get all this field work completed in 2010 so we can close these sites out in 2011. Go ahead, Myrna.

CO-CHAIR HAYES: For the ones that you describe here, or all 250 sites in C-2?

MR. SILER: Everything.

CO-CHAIR HAYES: In C-2?

MR. SILER: Yeah.

CO-CHAIR HAYES: Wow, Neal.

MR. COFFEY: That's ambitious.

CO-CHAIR HAYES: Did you get a little apartment up here?

MR. SILER: Nope, not done yet.

CO-CHAIR HAYES: Not yet, huh? Might consider it.

MR. COFFEY: Or one of those big old cranes.

CO-CHAIR HAYES: That's where I want my bed and breakfast.

MR. SILER: So Investigation Area C-3, some of the major accomplishments were the completion of the Removal Action Work Plan at UST 102. We submitted -- we got approval for

and we have started implement -- started implementation of a sampling and analysis plan for petroleum hydrocarbons at the Historic Independence Wharf Area. We talked about that. That's actually this figure right here. We've got a pretty good idea of the mapping of the free phase hydrocarbon. That's what you're seeing down here. It's a little busy in the small figure right there, but that's what you're seeing right down here. This actually was submitted -- this site characterization report was submitted the day before yesterday, so it is with the regulators right now.

CO-CHAIR HAYES: Can you -- I have never heard the term Historic Independence Wharf Area. I certainly kind of know where it is from Historic Independence Wharf photos, but can you show us where the -- where we're talking about --

MR. SILER: Let's go ahead and just go back to --

CO-CHAIR HAYES: -- on the great map of the world here.

MR. COFFEY: The world as we know it.

MR. SILER: If you go back here to this second slide, the historic independence wharf area is right here. It's a portion right between Dry Dock 4 and Dry Dock 3.

CO-CHAIR HAYES: Oh, okay.

MR. SILER: And initially it was believed that the petroleum contamination that we were looking at in this area was coming from a UST 142. But although we could find some petroleum hydrocarbons residual in this area, nobody could ever find Underground Storage Tank 142. And we started looking back on numerous historical documents, and started looking at photographs from that time, it was just a circle on a map, it was like a 1911 map that you saw it on. We finally found a bunch of photographs that looks like it was a water fountain is what they were actually looking at in that area. So we've actually gone back, talked about this with the regulators, they agreed that probably UST 142 didn't exist. That doesn't mean we have to not deal with this contamination in this area. We've got some pretty significant free phase petroleum hydrocarbon that we have to remediate in this area.

CO-CHAIR HAYES: So is this leased right now to Cooper Crane?

MR. SILER: It's Cooper Crane.

CO-CHAIR HAYES: So you -- they're able to continue their operation with your involvement in their property?

MR. SILER: They've been so far. I think once we get down to the point of removal -- remedial action, we're probably going to have to move them out of that area into a different area potentially, and then go ahead and do the remedy, and then move them back in.

Okay. So -- and the other thing, of course, was the Investigation Area C3 Black Granular Material Removal Action Work Plan. And that work is actually being implemented right now. If you go out there you can see they've actually removed quite a bit of the asphalt cover, they're prepping it to be resurfaced right now, triangle between Dry Dock No. 1, which is right there, Dry Dock No. 2, and the strait right here.

CO-CHAIR HAYES: Did you need your brown water here, coffee?

MR. SILER: No, I'm fine. I'm fine. Thank you very much.

CO-CHAIR HAYES: I was going to get you regular water, then I saw that.

MR. SILER: So the other area here, Investigation Area H2. Again, petroleum hydrocarbons seem to be the major constituent that we were attacking in 2009. We had done some initial excavations in the UST 231 area in 2008, removed about 12,000 cubic yards of material. But we found out that actually the contamination went under Building 231, which you can't see it right here, but it kind of sat right here where the crane is, north south. It went under Building 1331 which sits right back over here. And right here where this excavation is, this is where Building 811 was.

Remember the old locomotive testing facility? There's a paint building right there, kind of a real strange paint building. So we had to go in, abate the hazardous building materials in those buildings, demolish it, and we actually ended up excavating another 5,100 cubic yards of petroleum hydrocarbon impacted soil from these areas. So we went back and did two rounds of soil gas sampling with the petroleum hydrocarbon. That seems to appear to -- the results are pretty encouraging.

We're going to look at closure requests for UST 231 and 243, and implement some of the other investigations and remedial actions in this area that we have to look at. One of the things that we did do, the soil gas sampling, and it looks like it may be associated with a sanitary sewer line. We're going to go back and do some chlorinated VOC soil gas sampling -- soil and groundwater sampling around that sanitary sewer line, because we saw like this halo of soil gas around this area. So we're going to have to figure out what the source of that is, and then implement some sort of removal action in that area.

CO-CHAIR HAYES: So that's the reason for your scientific term of pretty encouraging?

MR. SILER: Yeah. Well, it's encouraging, definitely, from the petroleum hydrocarbon standpoint.

CO-CHAIR HAYES: But you still have this so-called halo?

MR. SILER: But we still have this halo of volatile organic compounds that we have to look at.

CO-CHAIR HAYES: So you're still chasing that site?

MR. SILER: Yeah. So in addition to the investigation areas, there are three major programs that are being implemented. The Underground Storage Tank Program, the Fuel Oil Pipeline or FOPL Program, and then the Polychlorinated Biphenyl Program sites. We made some significant headway into closing out a number of the Fuel Oil Pipeline segments. In 2009 we're addressing the additional 26 segments right now. Again, the PCB program, we closed 21 sites in 2009. And once we get done with Building 680, this will jump by 48, so this will end up being 514, so you'll end up having over 90 percent of the PCB sites closed at that time.

And then, as always, we implement the Long-Term Groundwater Monitoring Program. In fact, they're going to be doing an event here in the next month or so. So we did a lot of work in 2009, and we've got an ambitious program in 2010. It's pedal to the metal. I know Janet really appreciates it that we keep giving her documents every day but, you know, such is life.

MR. COFFEY: It's called employment.

MS. NAITO: Actually they're all going to topple over and I'm not going to be able to get out of my office.

MR. SILER: That's right. So thanks very much for giving me the opportunity to talk about what we're doing on the Eastern Early Transfer Parcel. And if anybody has any other questions, I'd be glad to answer them right now.

(No response.)

CO-CHAIR HAYES: Okay.

MR. SILER: Okay. Well, thank you very much.

CO-CHAIR HAYES: Thank you, Neal. We have our first of two public comment periods. This is an opportunity for any member of the public who's with us this evening to question or comment on anything, whether it's on our agenda or not, or whether we can do anything about it or not. We just welcome you to speak your voice. Also an opportunity for RAB members to bring up a topic that is not currently on the agenda.

(No response.)

CO-CHAIR HAYES: No. Well, let's take a ten minute break and come back.

(Thereupon there was a brief recess.)

IV. ADMINISTRATIVE BUSINESS (Myrna Hayes)

CO-CHAIR HAYES: Hello. Well, it's that time. When -- I ask you to please convene, reconvene for our next round on the Restoration Advisory meeting here. And we have administrative business and announcements. And it says Myrna and Michael. And I don't have any, and Michael's not here. So the big thing would be that if you have any corrections to, changes you feel should be made to the December 3rd meeting minutes, if you can remember back that far, please let Michael or me know about them. Okay. So moving right along, we have the focus group reports and discussion that goes along with that. And our -- I'll go in the order of the ABC on down. And so that would be the community outreach focus group. And Wendell Quigley currently chairs that focus group. And Wendell, do you have a report for us?

V. FOCUS GROUP REPORTS

a) Community (Wendell Quigley)

MR. QUIGLEY: No, ma'am.

CO-CHAIR HAYES: Hmmm. Maybe in 2010 we'll have to figure out how to reach out to the public through Wendell's group there. Natural resources, Mr. Karr. We're very pleased to have you back with us this evening.

b) Natural Resources (Jerry Karr)

MR. KARR: Oh, thank you. Thank you. Really nothing to report other than getting geared up for the Flyway Festival.

CO-CHAIR HAYES: Oh, yeah. Yeah. You brought the rain, I suppose, to fill those ponds up.

MR. KARR: That's right, I got to have the water or there's nothing to look at.

CO-CHAIR HAYES: Okay. Well then, Paula Tygielski, technical focus group report.

c) Technical (Paula Tygielski)

MS. TYGIELSKI: The only thing I have to report is that we were trying to schedule the meeting for January, and it didn't happen yet, so it will probably be in February.

CO-CHAIR HAYES: And the meeting was about? I know I got --

MS. TYGIELSKI: Offshore.

CO-CHAIR HAYES: -- all hot and bothered about it --

MS. TYGIELSKI: The offshore.

CO-CHAIR HAYES: Yeah, the offshore, yeah, all right, good, with the Navy. We did try to schedule a date, but get your calendars out for February. And, of course, your menu to decide what kind of food you want for that night, because I can imagine it's going to last for more than an hour. Okay. We have coming up the City report, Mr. Gil Hollingsworth.

d) City Report (Gil Hollingsworth)

MR. HOLLINGSWORTH: Nothing to report.

CO-CHAIR HAYES: Thank you.And Lennar update. In addition to the update that Neal gave, and this one will be given by Steve Farley with CH2M Hill.

e) Lennar Update (Steve Farley)

MR. FARLEY: Nothing to report, Neal did it all, he stole all my thunder tonight.

MR. COFFEY: Oh.

MR. FARLEY: No, just kidding.

CO-CHAIR HAYES: There's more thunder out there, I can tell you that. No.

MR. FARLEY: I've got an eleven by seventeen handout, if you didn't grab one, snag one before you leave tonight. Let's start with a few photographs. The one in the upper right is some -- laying some new storm water pipeline out in the Triangle Area. And I think Neal touched on the Triangle Area, the area between Dry Docks 1 and 2. This is part of the capping work that we're doing for the black granular material that is in the subsurface there.

In the upper left there's two photos of Building 680. I'm not sure how many folks have had a chance to look inside that building, but it's pretty dramatic. And the photo in the upper left is some work we're doing for some of the old pits that were in there. They had pieces of equipment that sat down in these bays. And so those bays are being worked on. In the lower left, this is the interesting one, is where we're removing the periscope towers that are inside the building. And you can see all the super structure work there and all the work that needs to be done, cranes and such that have to be brought in to remove those structures. Myrna?

CO-CHAIR HAYES: Well, two things. Pouring slurry backfill shallow bays. Could you remind us why that would be a remediation task?

MR. SILER: Yes.

CO-CHAIR HAYES: And then can you also tell us why removing the periscope towers would be and why you are removing them?

MR. SILER: Okay. So let's take it two parts. The first part is pouring the slurry in the shallow bays, that's part of the remedy for PCBs in Building 680. We wrote a work plan some number of

months ago, and the remedy for some of these areas is to scabble. And I think we've all heard about scabbling sites where you remove some concrete. In the case of Building 680, the remedy that's being used there is to encapsulate some of these low levels of PCBs. And so pouring the slurry into the Bay is the first step necessary in order to bring the slab level up so that a continuous level floor can be constructed on top of it. In the bottom, the reason that's being removed is cause we have to do work underneath it. So the only way to get in there and safely do the work in the areas underneath the periscope towers is to remove them.

MR. COFFEY: Is there a reason that they're pouring concrete around a storm drain?

MR. SILER: Yeah, I'm not sure -- I think that's probably a slurry, I don't think it's actually concrete, it's a slurry of some type. I don't think it's actually concrete.

MR. COFFEY: Why slurry, why not backfill it?

MR. SILER: It's essentially backfill. There's lots of different types -- I mean, you know this. There's lots of different types of backfill being used. That's been engineered. The City's approved it, the City's involved in the specifics of how that storm water pipeline is being installed. So I don't have the details on it, but the City is involved in that. We have to meet all the City codes and all the policies and such.

So moving onto the lower left. The various documents in review are listed there. A number of significant documents coming up, the IA-B.1 FS/ RAP, a Remedial Design Work Plan. Documents in review, the Implementation Report for B.2-1, which is what Neal mentioned a short while ago, and then a few other documents out there. Neal mentioned the Fuel Oil Pipeline and PCB sites, and if you add all those up, it's something on the order of 800 sites collectively. And to date we have something on the order of 650 or so of those sites that have been closed. And even Building 680, I think there's some on the order of almost fifty sites collectively inside that. And just, by the way, a lot of these sites, like inside buildings you'll see three or four, and in case of Building 680, a lot of sites. A lot of them are just very, very small sites. They can even be identified as a stain on the floor. So you can have a PCB site identified as a six inch diameter stain on the floor. So it's not as if a lot of these sites are, you know, large rooms or large areas of contamination, it's just how the Navy identified their sites.

And if you look at the main part of the figure, you'll see that all of the PCB sites, which are shown in the white circle with a blue ring around it, they all have either an AL or a UL after it. The ones that have the AL after the building name stands for assessment location, and then they're numbered sequentially one, two, I think as many as five or six at the site. But those stand for assessment locations, that's the nomenclature that the Navy used to identify their sites. So you can see the number of PCB sites. And there's on the order, including Building 680 which is listed as just one site, there's about six or eight other PCB sites that we're actively working on. We've got a number of them that we've received approval to go ahead and proceed with the work. There's three more that will begin in the Installation Restoration site 21 which is inside Building 386.

And then a couple of other things for IA-B.2 and B.2-2 and B.2-1. If you look at those two, they're different color patterns. B.2-1 is shown now in blue, last month it was shown in green. And it just represents the evolution of the closure of the sites. B.2-1 is moving much more quickly to closure. And I think, again, as Neal mentioned, the subdivision of the seven original

IA's is being done in order to move things along, close areas that can be closed, get 'em back into development, and in that way, you know, foster development in the City of Vallejo.

Building 461, Neal -- that's in the upper right-hand corner of IA-C1. Neal showed a photograph of the work that's going to be done there, it's the battery acid precipitate that's underneath the floor. Another one is IA Pump Station 4, Industrial Wastewater Pump Station 4, and Oil/ Water Separator T2, which are also up by Building 461. We've got some actions that are planned for that area, in particular Building 461. Agencies are currently reviewing some data, and our recommended path forward for the Pump Station 4 and T2 area.

Also up in that area is IR-07/20. That's an area that used to have some above-ground acid neutralization tanks, and we have some groundwater monitoring that we're going to be doing up there soon. Neal -- again, Neal also mentioned the IR-03 area. We've got some groundwater monitoring that's going in there. Neal actually showed some of the excavation that was recently performed up there for the Fuel Oil Pipeline source area. And that has been backfilled. The wells that were destroyed during that removal action have -- are going to be replaced. We've got approval from the agencies to do that, and so we're going to go out and replace those wells and then do some groundwater monitoring. So I think those are the highlights. Again, the -- I guess the main thing is that a number of these sites are moving towards closure. We have a lot of work to do in 2010, but the agencies are helping out greatly and things are moving forward.

CO-CHAIR HAYES: And, of course, so are we.

MR. SILER: Well, of course, that goes without saying, that's why I didn't say it.

MR. KARR: Steve, in Building 680, have all the wood blocks been removed? And what's their distribution?

MR. SILER: The wood blocks, about 90 percent of the wood blocks have been removed, and they're being taken to -- I think they're just being taken to a landfill, they're not going to an incinerator; right, Neal?

MR. SILER: No, they're going to Kettleman.

MR. FARLEY: Yeah, they're going to Kettleman. Has anybody every seen those wood blocks? They're pretty fascinating.

MR. COFFEY: Oh, yeah.

CO-CHAIR HAYES: Well, Wally told us the best story about them, that they got replaced rather frequently, they aren't like historical wood blocks.

MR. FARLEY: I was just interested in the fact that can you imagine the labor of putting those things down the first time, and then every time one would pop up, having to replace them?

CO-CHAIR HAYES: Well -- or every time one got too saturated, huh? That was what you were telling us, Wally. Yeah, they're part of history.

MR. COFFEY: A lot of trees.

CO-CHAIR HAYES: Oh, well, yeah, right, so here's my job again here. Something about the next, the next folks on the agenda. That would be Cris Jespersen with Weston Solutions.

f) Weston Update (Cris Jespersen)

MR. JESPERSON: First up is an update on the Sanitary Sewage Treatment Plant Outfall. In late December, removal of some mercury contaminated sediment was completed from the Sanitary Sewage Treatment Plant Outfall, which is just off the western shoreline of Mare Island. And we had to perform the work, due to the location, during a three day period when the tides were high enough to access the site. A crane mounted barge was used to excavate the shallow sediments to a minimum depth of one and a half feet. You can see in the top photo there -- and I think Dwight is trying to rival your artistry, Steve Farley.

MR. FARLEY: I took that photo.

MR. JESPERSEN: It essentially shows you the silhouettes of the crane mounted barge there.

CO-CHAIR HAYES: It's cool.

MR. JESPERSEN: And this crane actually excavated the sediment and placed it into twenty cubic foot -- or excuse me -- twenty cubic yard bins that were on a separate barge. And the photograph below that shows the bucket and the bins there. And actually the excavation was performed when the mudflat was exposed at low tide. And we used a specially designed clam shell bucket that's known as an environmental bucket, which essentially eliminates the release of sediments during the dredging activity. Sediments have been sampled, and we're going to transport them to a commercial landfill for disposal. The excavated area was surveyed after the work to confirm that we removed the depth of sediments that we had put in our work plans. And preparation of a Post Removal Completion Report is currently underway to document the work. And we're hoping that this removal action completes the cleanup of the site that was specified back in 2002 under the Remedial Action Work Plan of the Western Early Transfer Parcel.

CO-CHAIR HAYES: Wow.

MR. JESPERSON: Next up is an update on the Investigation Area H1 containment cap. And the installation of the geosynthetic materials for the remaining portion of the engineered cap. And the area H1 Containment Area was continuing in December. The preparation of the final subgrade for the geosynthetics continued as weather permitted and was nearly complete. You'll see below there some of the subgrade preparation. However, progress on the geomembrane installation, the final two feet of cover soil has been slowed down by the recent rain events, actually frequent rain events. And we will continue work and hopefully wrap things up as soon as the weather conditions allow.

And finally an update on the work in investigation -- excuse me -- Investigation Area IR-05 and the Western Magazine Area. Our UXO technicians completed some checks of areas within IR-05, which is located down in the south end of Mare Island, within or near some berms that are adjacent to excavation areas. And it's tidal areas that we hadn't geophysically surveyed due to standing water conditions. A few remaining munitions items or munitions debris items were recovered from these areas. And due to the discovery of these items in the wetland area of IR-05, the perimeter of wetlands within the Western Magazine Area where also checked with some handheld magnetometers to minimize impact on the pickleweed habitat. We identified several hundred metallic anomalies when we did this. And a sampling of these anomalies will be investigated to determine if munitions items are present, or if the anomalies represent inert items like scrap metals and other items like that. So that's what we accomplished in December. I'll take any questions you have.

CO-CHAIR HAYES: What's the status of the Paint Waste Area besides probably being full of water?

MR. COFFEY: Six feet deep.

MR. GEMAR: We did complete the excavation of the site, and we have done all of our radiological sampling and surveying, and it does appear that we have completed, you know, the radiological removal. And also we've done our geophysical survey and checked the remaining anomalies, the metallic anomalies, and none of those were MEC. So the actual footprint of the site is done. However, when we were putting in a silt fence just to the north of the site to allow for digging up a little step-out area to prove that there was no more RAD in that area, we had a few RAD items pop out of the ground.

MR. COFFEY: Jumped right up at you.

MR. GEMAR: Imagine that. So the Navy has requested that Weston provide a modification to the contract -- or a request to modify the contract to do a geophysical survey and radiological survey of approximately one acre on the north side toward Building 505, which is pretty much an upland area, just to make sure or determine if there is more to the site than what we think there was. And so the Navy is currently pulling together funding for that. It's not a big effort, but it's basically an investigation effort. And so we're not a hundred percent sure that the site is done, but the original footprint is done, and so that looks real good.

CO-CHAIR HAYES: Okay. And I guess that might -- I might follow up with a reminder of what I think I said -- no -- I know I said a few months ago, that I'm beginning to wonder if possibly RAD, but MEC issues are more pervasive on the north end of the island.

MR. KARR: No acronyms, I'm sorry.

CO-CHAIR HAYES: Yeah.

MR. COFFEY: Smack.

MR. KARR: What's MEC?

(Laughter.)

CO-CHAIR HAYES: Munitions and Explosives of Concern.

MR. FARLEY: By Jove, I think she's blushing.

CO-CHAIR HAYES: Well, these minutes will be fun tonight.

Well now, where was I? Over yon, over there on that big wet spot on the north end of the island, maybe we have -- should revisit that whole area. I know that without the Navy here to, you know, pale while I'm blushing, I think that maybe there are more pervasive munitions and explosives of concern issues up there in the wetland areas than had originally been thought. And I don't know if they're just out there lying around, if they're in --

MR. COFFEY: Popping up.

CO-CHAIR HAYES: -- Popping up, if they're in defined ponds or if they're outside of ponds, if they're on the edges like in ditches somewhere. I just think -- ooh, I hate the thought of it, but maybe we have to think a little differently. This Paint Waste Site seems to have been a lesson, and maybe we'll just go on learning lessons for another century here. But it took 'em a century

and a half to mess it up. Okay. The next report I suppose would be either the U.S. EPA, the Cal EPA Department of Toxic Substances Control, or the San Francisco Bay Regional.

g) Regulatory Agency Update (Janet Naito, Elizabeth Wells, Carolyn D'Almeida)

MR. COFFEY: Water Quality Control Board.

CO-CHAIR HAYES: -- Water Quality Control Board.

MS. NAITO: It just said Water Board.

CO-CHAIR HAYES: Right, Water Board. But not water boarding.

MR. COFFEY: Well, that's no fun.

CO-CHAIR HAYES: Okay. So you can choose. Which one of you wants to speak to us first?

MR. COFFEY: Janet, Janet, Janet.

MS. NAITO: Well, I've been busily reviewing all the many documents that have come across my desk, so I didn't have time to compile the number. But for -- I know that for Lennar's side of the Eastern Early Transfer Parcel, I've done two of the three remedial actions plans that came in since our last meeting. I think I'm behind about fifteen PCB or other small removal action, either site characterization or implementation reports or work plans. But most of the big documents I've gotten off my desk. For the Navy side, I'm treading water. I'm not too far behind on any of their documents. But for your information, Myrna, yesterday we sent out a letter approving the Draft Final PMA Housing Tech Memo assessing MEC as a chemical of concern. The final document should have been released today or tomorrow.

CO-CHAIR HAYES: That is some wonderful news, a long time coming. If -- for those of you who don't know where the PMA housing is --

MS. NAITO: I'm sorry, Production Manufacturing Area.

CO-CHAIR HAYES: Area. And we know it as the Naval Ammunition Depot Ordnance Workers Housing that's a part of the Naval Ammunition Depot National Historic Register District, which makes up the national historic landmark part of that. And the housing area is about seven acres and includes six houses and a lot of other structures and buildings. And there was a long time there -- for a long time there has been a concern on the part of the agencies that because of at least two known explosions that occurred in the Naval Ammunition Depot area, that there could have been kickout from those explosions onto those properties, making it -- making it necessary to do some investigation or remediation of that housing grounds, which is ultimately to come into the park area, the regional park area known as the Mare Island Shoreline Heritage Preserve right now. So this is very good news that after many, many years of the Navy and the Department of Toxic Substances Control, and I don't know who else in the regulatory arena working hard on this, this is a big hurdle, a big step forward, because what it means is that now all we have to do is convince the Navy that they should remediate the lead in soil -- which they don't believe they need to do, but they're not here to defend themselves -- and any other contamination issues, whether it be asbestos or whatever. And then that property can be transferred to the City, to the state, and granted back to the City so that it could become part of the park. Janet's making a furrow on her forehead.

MS. NAITO: That was like the biggest loop to get back to the City.

CO-CHAIR HAYES: It always comes back to that.

MR. COFFEY: Welcome to bureaucracy.

CO-CHAIR HAYES: Well, thank you for your report and that's wonderful news on the last part of it there. Elizabeth or Carolyn.

MS. D'ALMEIDA: If you'll pass me the microphone there. We've started reviewing the Area K Remedial Investigation Report. I've gotten some assistance from Dr. Clarence Callahan who was our toxicologist ten years ago, way back when Emily and I were working on this, and he reviewed some of the early documents on the Ecological Risk Assessment. And he retired, unfortunately, and went to work for the state of Hawaii, and now he's doing consulting, and I've got him back as a consultant.

CO-CHAIR HAYES: Cool.

MS. D'ALMEIDA: So it's great to hear his voice today on the phone when we were discussing this. And that's the main thing that we're working on. I've got, of course, a stack of PCB reports that are kind of backlogged because I've been working on getting comments out on a major document for another site, and that's just about -- that letter is just about ready to go out. So then as soon as that's done I can get back to my PCB letters. And that's about it.

CO-CHAIR HAYES: And Elizabeth, you actually have a presentation?

MS. WELLS: I do.

CO-CHAIR HAYES: So welcome.

MS. WELLS: Thank you.

CO-CHAIR HAYES: Elizabeth Wells, relatively new to us, Project Manager for the Navy portion of Mare Island from the Water Board.

MS. WELLS: Thanks, Myrna. Thank you, Myrna. So I got a little kick in the pants at the last meeting for not reporting, so I'm going all out with an actual presentation. And so the first thing I wanted to tell you is to remind me about the acronyms as we go through.

And I wanted to tell you a little bit about myself. So I've been on this project now since November 1st, I think. And before I tell you about Mare Island, I live in Berkeley, I have two children and I'm a soccer mom, and I like to travel. But I'm a civil engineer and I did environmental consulting for 19 years before I came to the Water Board. I took a five month break, took a deep breath, and then went to the Water Board. So I've been here almost three years. And I also work on Moffett Field, so that's down in Mountain View with the Statue of Liberty of the west, otherwise known as Hanger 1. And they also have a very active Restoration Advisory Board. So it's really nice to be at two bases that have active boards. I also work on a couple of private sites.

So why don't we just get right into the presentation. This is my contact information, I think it's on some of the other -- So what I wanted to tell you about today was the official Water Board report, and then actually I wanted to talk a little bit about some things that the Water Board itself is doing. So the Water Board is actually a board of people appointed by the Governor. Right now there are eight members of the Water Board. They meet once a month. And I am staff to the Water Board. So if you read the letters that the Water Board puts out, it will usually say, "Water Board staff says," or "Water Board staff's comments are." So what I've been doing on

this project is trying to figure out where everything is. So I carry this handy dandy little map with me wherever I go, and I send Janet e-mails asking her what IA whatever is. And I have actually been driven around part of the site twice. We were supposed to go behind the gate today, but since the Navy didn't show up --

CO-CHAIR HAYES: You could have called the number on the gate which would have been me.

MS. WELLS: So anyway, I haven't been behind the gate yet, so I'm hoping to do that next. That's the first thing. The other thing is I have been reviewing documents. There are some underground storages tanks that are remaining, and Brooks Pauley and I have talked about them, and we've developed a path forward for UST 993-4, 266, and 225. So there's going to be a work plan that's going to be coming out doing some additional work at each of those three sites. And then also I reviewed the SST -- I don't know what that stands for outfall.

(Thereupon simultaneous discussion occurred.)

CO-CHAIR HAYES: Sanitary Sewer Treatment Plant Outfall.

MS. WELLS: Sanitary Sewer Treatment Plant Outfall. And then the Former Degreasing Plant Action Memorandum. The Marine Corps Firing Range Proposed Plan. I have letters that are going to be going out for those two in the next couple -- in the next week. And IA is Investigation Area. Right? IA A-2, the record of decision is actually sitting -- I believe that's what that is -- is sitting on our, the tables right there, we're right in the middle of reviewing that. And then we had -- as Carolyn mentioned, we're looking at the IA-K, Remedial Investigation Report. We had a meeting with the Navy today, or a conference call with the Navy today to discuss with us what's in there. It's three binders that are about this big. So I'm slowly being encapsulated in my cubicle. It's a little sad.

So the other things I wanted to tell you about actually are the Regional Monitoring Program and the stream and wetland systems protection policy. And the reason that I wanted to tell you actually is it's relevant to Mare Island, it's relevant to anybody that lives in the Bay Area, because it's information that has to do with the Bay and things that the Water Board itself is doing. And every year I give a presentation on the Regional Monitoring Program, every November I give an update on it to the Moffett RAB, and I thought that if you guys are interested, I can do it for you guys as well.

CO-CHAIR HAYES: Yeah.

MS. WELLS: Okay. The Regional Monitoring Program is a program where contamination in the Bay is monitored, is sampled. So there are sampling stations around the Bay that are sampled for specific constituents or chemicals of concern. It's a collaborative effort that's done between the San Francisco Estuary Institute, SFEI, and the Water Board. And the results are published every year in a really nice magazine booklet called, "The Pulse of the Estuary," that's put out by the San Francisco Estuary Institute. So every year I can also bring copies of these for you. Or you can get them, I believe, on-line. And there's some, if you didn't get one, I think there might be some more in the box under the table. And I do not personally participate in this program, but it's really important for me to let you guys know what the Board is doing. Okay.

So there's a picture of it. There's a picture of it. Okay. So what "The Pulse of the Estuary" does is every year it publishes the results of the monitoring program. So again, RMP is the Regional Monitoring Program. And then each year it -- they tend to pick one Topic to focus on. This year

they have focused on sediment. So there are several different articles by people who are either at the San Francisco Estuary Institute or researchers that they work with about sediment. And so there's some information there about dredging, about suspended sediment in water, how they use soil cores to determine information. And then the other thing is sediment quality objectives, which I'll talk about a little bit more. So copies of this can be obtained at SFEI.org, and I also put the phone number on there for you. Okay. Sediment quality objectives.

MR. COFFEY: New acronyms, oh boy.

MS. WELLS: I know it's an acronym, sorry, I didn't know that rule. So the protection -- that's right, the State Board established the protection of aquatic life in bays and estuary sediment quality objective in 2008, and it became effective August, 2009, by approval of the EPA. What's important, which is a really interesting development and what's coming forward this year, is that there's going to be a protection of human health sediment quality objective coming up for adoption in 2010. And I think one thing that I took away when I was reading this document was that the data that's been collected recently shows that 39 percent of the stations where they sampled around the Bay exceeded the aquatic life sediment quality objective. Now, what I don't know, and we can look into if you're interested, is where were the sampling locations relative to Mare Island. If you're interested I can go back and see if I can find that out.

CO-CHAIR HAYES: That would be part of your report?

MS. WELLS: I don't know if it's in here or not, I can look.

CO-CHAIR HAYES: Can it be part of your future report?

MS. WELLS: It can be part of my future report. Is that an action item? Okay. All right. And then I wanted to just bring this up. The stream and wetlands systems protection policy. One of the things that I really enjoy about working at the local Water Board, at the San Francisco Regional Water Board is that we have mandatory trainings once a month. And one of the trainings was on stream and wetland systems protections and policy. And it's way outside my area of expertise, but what stood out to me at the training was that the regional board is going to have a proposed basin plan amendment. So the basin plan is the document that talks about the water usage and water quality within our -- within the watersheds and the water basins in the region. So Region 2 has its area, Region 3 of the Water Board would have its area. And the basin plan amendment is going to address beneficial uses, water quality objectives, and implementation plans having to do with streams and wetlands. The state and the regional board are working together on this. And the other thing is that the state is going to come up with a definition for wetland. And Janet is clapping her hands.

CO-CHAIR HAYES: As compared to the Corps' definition?

MS. WELLS: Yes. So this is one thing, this is the primary.

CO-CHAIR HAYES: Hmmm, suspicious.

MS. WELLS: This is the primary reason that I brought this up is that it was undergoing scientific peer review in November, and there is going to be a period when the public can review the definition and comment on it, and can review, I believe, the basin plan amendment.

MR. COFFEY: How?

MS. WELLS: That is what I will find out for you.

MR. COFFEY: Action plan.

MS. WELLS: And then there will be a hearing in the fall where also public comments typically can be taken. And that's it, that's my update. Are there any questions?

VI. CO-CHAIR REPORTS

CO-CHAIR HAYES: Well, thank you very much. That -- you earned your keep for the last three months of your work here; didn't you? I just wanted to note a little bit of history that Mare Island, at the south end of the island, high on a bluff overlooking the Bay, we have our very own Bay model, and it was built in the 1920's, and it was an Army Corps project and, of course, it's somewhat dwarfed now by the Bay model in Sausalito that just got, I heard something like $8.9 million in the federal stimulus package. And I assume that was to do some sediment -- contribute to some ongoing work on sediment and probably sea level rise impacts or potential impacts. But speaking of sediment in that model, we read that they used Gilsonite soaked in water seven days to create the sediment model -- modeling sediment for this little bay model. It was completely functional. The tides came and went and all of that. Very cool, and something that desperately needs protection and preservation. The fennel has come up through it and broken it up, but it's got the Napa River and the Carquinez Strait pouring into the Bay, it's very darling.

So, now I have the privilege of giving the Navy Monthly Progress Report in their absence. So I want to draw your attention to their report that you may have a copy of, that they have added Building 824 to their Polychlorinated Biphenyl Program, and that now brings their total up to 64 sites. Building 824 contains low level of PCB contamination, it contains transformers actively operated by Island Energy. 29 of the 64 PCB sites have U.S. EPA approved PCB Site Cleanup Plans. And a lot of that fieldwork has already begun. Their Time Critical Excavation at the Paint Waste Area, as Dwight already mentioned, is complete. And total radiological and geophysical surveys for the Paint Waste Area are still underway, as Dwight said. I wouldn't have had to repeat that, but a total of now 1,052 radiological items and seventeen munitions and explosives of concern items had been recovered at the PWA before they – you -- are now widening your review area.

The Navy began a Non-Time Critical Removal Action fieldwork at Installation Restoration Site 17 of Building 503 in December. And those are on the north end of the island right near the festival headquarters, I guess, a little bit north of that. And they temporarily removed portions of the railroad track along Azuar Drive -- and I wondered what that was -- and also removed vegetation, and installed a silt fence, and three groundwater monitoring wells were decommissioned -- you could read this, I don't need to read it -- on January 11. So they have excavation activities that are scheduled to begin at that site in March of 2010. And they're continuing excavation of petroleum soil under and adjacent to Azuar Drive and Dump Road, and north of Dump Road in the vicinity of the former Defense Reutilization and Marketing Office. And that, as of January 15, 134,000 cubic yards of soil had been removed and put into the Investigation Area H1 Containment Area known to us as the landfill. And that was, I guess, along with those other two areas, that that material was also consolidated into the landfill, was it not, from the Lennar parcels that Neal commented on earlier; wasn't it?

MR. GEMAR: That's correct.

CO-CHAIR HAYES: Yeah. All right. It's getting to be a lot of dirt. After confirmation sampling results are obtained for the excavation floor and sidewalls, the excavation areas are or

were being backfilled until the rain put -- probably put a temporary hold on that. And the Azuar Drive corridor backfill has actually been completed. And the road bed and then the final grading or paving will be completed in February if our weather turns around. And all of the field work is expected to be completed in February and, again, weather permitting. The Navy submitted 21 documents during the reporting period and I will not go through all of those, it looks like a lot of documents, a lot of work. And that must mean that your piles are even higher when you add the Navy's to everything else that's going on at Mare Island, at the regulator's camp there. And I think that just about completes the Navy's report.

We'll be looking to our next Restoration Advisory Board meeting on the 25th of February, that's a Thursday. Thank you to those of you who rearranged your schedules to come out a week early, it just makes it a little -- since we didn't have a RAB meeting since the beginning of December, it's good to kind of get started a little early in January. And it also helps those of us who are working on the Flyway Festival to have a little bit of breathing room between the RAB meeting and the festival. And so that brings up the co-chairs report. And since the Navy's not -- Michael's not here, he didn't specify anything specific other than reviewing their report with you tonight. He didn't add anything to that as the co-chair. And what I will add is that if you didn't get a flyer for the Flyway Festival, that is coming up February 5, 6, and 7, on Mare Island. Thanks to the City of Vallejo for leasing us the building again at the north end of the island, Building 897. And the expo is open there 9:00 to 4:00, Saturday and Sunday, the 6th and 7th, with evening reception and opening on Friday evening at 5:30. And a number of outings throughout the Bay Friday, Saturday, and Sunday, as well as about twenty outings here on Mare Island on those three days.

So I want to thank our sponsors and all of our volunteers and people who are contributing in many different ways to the success of the 14th annual San Francisco Bay Flyway Festival. And I just want to note that in January of 1996 the Navy actually hosted our first event. It was not called a Flyway Festival, so this actually will be our 15th event held here at Mare Island. And on that weekend there was no place on Mare Island that -- or on that day that was not accessible to the public, even though we had environmental work to do, and that continues to be the case through the tremendous cooperation at the City of Vallejo, Lennar Mare Island, Weston Solutions, and the U.S. Navy. We're able to have escorted, guided, self-guided walks and outings throughout the island, both focusing on history as well as on the natural resources of this wonderful place. So thank you very much. And there's always time to give donations or volunteer your services.

And this brings us to the last public comment period. And there again, you still have a chance to step up, speak your mind, ask us a question. If we don't know the answer, we'll certainly ferret out who that might be, who could answer the question for you.

(No response.)

CO-CHAIR HAYES: Okay. Wake up. It's time to leave. We adjourn the meeting for this evening.

(Thereupon the foregoing was concluded at 9:01 p.m.)

LIST OF HANDOUTS:

- Presentation Handout – IR04 Remedial Investigation, Mare Island Naval Shipyard – Navy

- Presentation Handout – IR04 Remedial Investigation, Mare Island Naval Shipyard - Figures – Navy
- Presentation Handout – Eastern Early Transfer Parcel (EETP) Update – CH2MHill/ Lennar Mare Island
- Features within the EETP – CH2M Hill/ Lennar Mare Island
- Mare Island RAB Update January 21, 2010 – Weston Solutions
- Presentation Handout – Water Board Update
- Pulse of the Estuary – 2009 Bay Sediments: Past a Tipping Point
- Navy Monthly Progress Report Former Mare Island Naval Shipyard January 21, 2010
- Flyway Festival Handout