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

HELD THURSDAY, February 24, 2011

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, February 24th, at the Mare Island Conference Center, 375 G St., Vallejo, California. The meeting started at 7:00 p.m. and adjourned at 8:50 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)
- Chris Rasmussen
- Michael Coffey
- Wendell Quigley
- Paula Tygielski
- Kenn Browne

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

- Janet Lear (Navy Co-Chair)
- Brooks Pauly (Navy)
- Tony Megliola (Navy)
- Neal Siler (Lennar Mare Island)
- Steve Farley (CH2MHill)
- Janet Naito (DTSC)
- Elizabeth Wells (Water Board)
- Gil Hollingsworth (City of Vallejo)
- Dwight Gemar (Weston)

Community Guests in attendance:

- Diji Christian
- Devon Swartz

RAB Support from CDM:

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

I. WELCOME AND INTRODUCTIONS

CO-CHAIR LEAR: Welcome, everybody, to the RAB meeting. And we'll start with introductions. I'm Janet Lear. I'm the base realignment -- sorry - BRAC -- I'm the Navy Co-Chair. Keep it simple.

CO-CHAIR HAYES: I'm Myrna Hayes, the Community Co-Chair.

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

MS. TYGIELSKI: Paula Tygielski from Benicia.

MR. COFFEY: Mike Coffey from American Canyon.

MR. QUIGLEY: Wendell Quigley, Mare Island.

MR. FARLEY: Steve Farley with CH2M Hill.

MS. NAITO: Elizabeth Wells with the Water Board is down there. I'm Janet Naito with DTSC.

MR. HOLLINGSWORTH: Gil Hollingsworth representing the City of Vallejo.

MR. QUIGLEY: Boo.

MR. COFFEY: I heard you're running for mayor.

CO-CHAIR HAYES: Not of this town.

MR. GEMAR: Dwight Gemar with Weston.

MS. PAULY: Brooks Pauly with the Navy.

MR. MEGLIOLA: Tony Megliola with the Navy also.

MR. SILER: Neal Siler, Lennar Mare Island.

MS. SWARTZ: Devon Swartz, I'm a Touro University student.

MS. MOORE: Carolyn Moore with CDM.

MR. RASMUSSEN: I'm Chris Rasmussen, a resident of Mare Island.

II. PRESENTATION: *Update on the Removal Action at Building 742*
Presentation by Ms. Brooks Pauly (Navy)

CO-CHAIR LEAR: Okay. Well, tonight we have a couple of good presentations. The first one is on the update of the removal action at Building 742, and that's presented by Brooks Pauly with the Navy. That will be followed by a presentation given by Neal Siler, Lennar Mare Island, on the implementation of remedial actions at Historic Independence Wharf Area. So we can get started with our first presentation by Brooks Pauly.

MS. PAULY: Great. Thank you, everybody, for coming out tonight on such a wet and rainy night.

MR. COFFEY: You have to do a song and dance tonight.

MS. PAULY: Oh, okay. Who's going to be my accompaniment? Okay. So I think we need to get this going again. And I forget, is it C-2 or F?

MS. MOORE: The mouse comes up from the beginning.

MS. PAULY: Okay. Very good. All right. Again, thanks again. Can everyone hear me? All right.

Today I'm going to be talking about the update on the removal action at Building 742. As you guys might remember, we talked about the action back in August that had happened last year, June and July. And so tonight I'll start with the customary review of where the site is and some of the brief site history. Then I'll briefly cover what we did during the recent removal back in June and July of 2010. Then I'll go over the three quarters of groundwater and soil gas monitoring results that we have. Okay, spoiler alert, there were some unexpected results. Oh, and we've got a late addition. Come on in. I think it is Diji. Lastly, I'll describe our path forward and take any questions that you guys might have.

So our site is located on the east central portion of Mare Island -- of former Mare Island, I should say, within the --

MR. COFFEY: It's still Mare Island.

MS. PAULY: Investigation Area C-2 -- it's definitely still Mare Island, but within the Former Naval Shipyard Area. It's within Investigation Area C-2, and obviously it's within the City of Vallejo. And as you can see in the elevation view here, we've got Building 742 is the lovely salmon colored building here in the middle, and it's located in this industrial area -- former industrial area and current industrial area. It was formerly an ordnance machine shop, as you probably remember from the last presentation. Operated from 1941 to approximately 1972.Our area of interest -- get the pointer here -- is at the southern end of the building. This being the north. Looking up is north on this picture. So we're at the southern end of the building here. Where there was a former degreasing plant, which is right in this area. It's since been removed. And also the grinder foundation sump area which is within this garage bay here. The Former Degreasing Plant or FDP section of the machine shop operated, like I said, during about the same time period, from the early forties to the early seventies. And basically in that machine shop the former degreasing plant was used to degrease metal parts that were made in the ordnance shop.

So some of the things, the features of the former degreasing plant were the two degreasing tanks, tank pits, and the two lye tanks. Wastewater from these types of activities was discharged to the floor drains connected to two sumps. It's in this area. And the grease trap and the sump and the grinder foundation sump. So the grinder foundation sump was in this garage area. Chemicals of concern or COC's in this area are the chlorinated hydrocarbons again for degreasing, and we also often refer to those as volatile organic compounds or VOCs. Historical plans indicate that the tanks were removed and the tank pits filled in in the early seventies, so approximately 1971, as the operations for the ordnance machine shop wound down. So there's also a storm drain that runs east-west along here. And that is where the story began, as there was some storm drain cleaning about 2001, and that was when it was discovered that there were some potential VOCs in the area.

This is just a slide that reiterates the points I talked about before, but I wanted you to have it in writing in case you hadn't had it before.

So as I mentioned, during the storm drain cleaning they noticed that not only was most of the storm drain crushed in that area, but also there were some VOCs detected during the confined space entry by the monitoring equipment. In 2002 the manhole that was actually -- we'll go back, I'll go back. There's a manhole just downgradient from the site that was plugged so that there

wouldn't be anymore -- to prevent any kind of downgradient flow into the strait. And then actually in 2010 when we did our excavation and injection down here, the project work that was last summer, we also plugged the storm drain up here so that this area would be isolated.

All right. Moving on. So just to quickly go over how we got to where we are. As I mentioned, there was the discovery. And then there was a lot of subsurface investigation that was done between 2002 and 2007.It was determined that really only vinyl chloride or VC was found in the groundwater, in groundwater in concentrations that increased the risk of potential vapor intrusion.

So this building not being in use, this was not a time critical removal action, so we went through the process the Navy has to do what they call a non-time critical removal action or an NTCRA, with the goals listed above; basically to protect human health and the environment, and to reduce the potential for vapor intrusion risk for future workers should the building be used. So the actions consisted of the actions listed above which is basically soil excavation in the area of the former degreasing plant and along the storm drain, the crushed storm drain line, and also its manhole that was just downgradient, not the manhole that was plugged further downgradient, but the manhole where the actual original cleaning was taking place.

With vinyl chloride in a low concentration like that, a very standard thing in the industry is to apply ORC. So basically what ORC is is oxygen release compound. And that oxygen, once it's put into the subsurface in the groundwater, would stimulate the microbial populations to degrade vinyl chloride to water, chloride, and energy.

So in this figure you can see where the excavations and the ORC application were done. So basically this was the Former Degreasing Plant Area, and this whole area was excavated all along where the green is. You can see we excavated along the crushed storm drain. This is around the manhole, it's called D1-C85. And then further along down the crushed storm drain until basically we hit some utilities. We didn't want to impact utilities at the site. So pre-excavation activities included doing some borings within the Former Degreasing Plant Area, and taking some groundwater samples there to understand the extent of impacts in that area. Doing the excavation obviously. And then doing ORC application in the areas of the excavation.

And so basically what was done is the ORC was placed in these areas and manually mixed, groundwater was flowing in, and so that created the kind of ideal conditions to mix that up and have that reaction take place. There were certain areas just upgradient as well, so this is the garage bay area, and then there was a storage shed upgradient as well. And we didn't want to impact those by tearing them down so injection of ORC was done in those areas to take care of any potential issues in that area but not do a full excavation.

Okay, so we've talked about location. And also you can kind of see where -- it's a little hard on this figure -- there were three existing groundwater wells that we sampled before the NTCRA work was done, and two of them, one was in the Former Degreasing Plant Area, and one was down here in the manhole area, and of course, those had to be destroyed during the excavation, but then they were reinstalled.

Moving on. In this slide we're just showing some of the pre excavation pre-remediation sampling that was done, again in the Former Degreasing Plant Area. This is just showing the one direct push boring that was done. It was advanced about 30 feet within the Former Degreasing Plant Area. Soil samples were collected from 18, 24, and 29 feet below ground surface. Our

groundwater sample was only collected from the 24 to 29 foot interval because -- more foreshadowing -- the two other locations did not yield any water for sampling because that indicates a very tight subsurface matrix, or in other words, clay. So we just weren't getting a lot of water down there.

Groundwater samples were collected, as I mentioned, from the existing wells. And they were analyzed for the various -- I'm sorry, this is pre and post remediation sampling. In the pre-remediation sampling we could only get a little bit of water so we just sampled or analyzed for the most important compounds of concern which were like VOCs and metals and such, which you saw, and TPH, which you saw on the previous slide. But for the post remediation sampling, which is what we're doing four quarters of monitoring post remediation to see how well our remediation is going, they were analyzed, the samples were analyzed for all of these different compounds. So VOCs; SVOCs which is semi-volatile organic compounds; Metals; PCBs which is polychlorinated biphenyls;TPH which is total petroleum hydrocarbon, so like basically diesel, gas, things like that; Geochemical parameters such as total organic carbon, TOC; Dissolved gases like dissolved oxygen or DO (more foreshadowing); and microbial parameters like the population and species of different microbes in the ground. And soil gas sampling in addition, especially since our concern is vapor intrusion, we wanted to monitor for soil gas, and we're analyzing for the chlorobenzenes and the chloroethenes which are the primary chemicals of concern for vapor intrusion.

Okay. As I mentioned, after the remediation we are going to do four quarters of sampling. We've done three quarters so far, on the dates as you can see on the slide. So the good news is that the groundwater sampled had no exceedences for SVOCs and PCBs and TPH. Metals results were very slightly above the project action levels or PAL's. And the PAL's were developed using a risk management model to minimize basically the vapor intrusion risks. So they were within the normal range of analysis variation. However, in the Former Degreasing Plant Area and the manhole area, several VOCs, the chlorinated hydrocarbons, did exceed our PAL's. So similarly, soil gas samples had no exceedences for the SVOCs, but they did have VOC exceedences, which is not so surprising.

Now, first of all I want to say that no one can read the text on this slide, so that's why hopefully we've included, at the back of your packet, the -- yay -- the eleven by seventeen figures which will give you a little better idea. It's still very small text for the sample results, so we've also included in your packet tables of the results, of the data.

MR. COFFEY: Next time send it to my Kindle.

MS. PAULY: Okay. So send it to Mike's Kindle. Got it.

CO-CHAIR HAYES: Won't be able to read it there either.

MS. PAULY: Once it's to your Kindle, you're on your own. So hopefully the larger versions will kind of help you take a look. And I did want to point out this is Building 742. So I think we can get the orientation on this slide. And this is the southern portion. And, of course, as you can see here in the green, this is where we did the excavations. So hopefully that will get us an idea.

The point of this slide is really not to see all the details, but to discuss the trends. And so basically what you can see is that in the areas where we have hits of contaminants of concern, our chlorinated VOCs, our chlorinated hydrocarbons, we unexpectedly got concentrations and hits of PCE or tetrachloroethylene, or sometimes called perchloroethylene because it's got the

four chlorinateds;TCE, which is trichloroethylene; 1,2-cis-DCE, dichloroethene; as well as our vinyl chloride which is basically an ethene with one chlorine. And so if you'll remember, originally we only detected the vinyl chloride in the groundwater and we're thinking ORC is used to jump start that [degradation], it will be great. The various populations of the microbes, there are quite a few different kinds of microbes that can use oxygen, an aerobic environment to chew up the VC and get rid of it. So we were expecting that that would happen. And we were expecting just to see decreasing concentrations of the vinyl chloride. What we actually see is not only the PCE, the TCE, and the DCE, but that they go up, and over the three quarters they've gone up and down and fluctuated. And so we see this fluctuation and we're thinking where did this come from? What happened?

So the short story is that the excavation, as you'd expect, disturbed the soil, and disturbed the subsurface conditions, and then when you applied the ORC, typical ORC carrier is basically water -- and jump in here, Dwight, if I misspeak. But it's basically water and possibly a surfactant or basically a soap. And so what happened is that it desorbed some of this PCE, TCE, and DCE from the very clayey soils which had been holding onto them very tightly, so leading to a temporary spike in the levels of these compounds, as you see. And then the concentrations started to fluctuate up and down. And you're thinking, "Why are they fluctuating up and down?" We've got an oxygen rich environment down there. Now, brace yourselves for this next slide, I promise, I was telling Tony earlier, I'm not going to go into a lot of detail on it. But the one thing I wanted to point out on this slide is just the idea that PCE, TCE, DCE, this is the general pathway for how they degrade. So what happens is that microorganisms can and use these compounds for energy, and break off the chlorines, and basically turn it into water and carbon dioxide and energy and a little bit of chloride ions. Okay. So this is just the normal degradation sequence for PCE.

So our first clue as to what was happening was that we did see PCE, TCE concentrations, increase and decrease. So one other thing for the slide is that in chemistry if you have a concentration of something on one side, it tends to push a reaction one way. So if you had an increase in this concentration like here, it would tend to go this way. The reactions don't go the other way on this particular reaction. So you're not going to get things forming, they're just going to degrade and then they don't come back together. So anyway, just to try to achieve balance, they tend to go that way. So this is good for us.

And so in this case we had some PCE come into the system, and the next clue of what was going on was the geochemistry results. So we saw low dissolved oxygen, that is surprising, of course, because we put oxygen into the system with our ORC compound. And then we saw the evidence of the daughter product, so we saw the TCE, the DCE. We did see some vinyl chloride. We actually saw some of the vinyl chloride go up in a few places. And then we saw high total organic carbon or the TOC. And the big clue as to what was going on is we saw high populations of dehalococcoides. The dehalococcoides are microbes -- and this again is just why I wanted to show these slides -- that work on this end of this reaction. So whereas the other microbes for vinyl chloride work aerobically just on this end of the reaction, they don't need a lot of energy to get started, and this part of the reaction is kind of low energy, this part of the reaction is pretty high energy. And so it really does take a little kick to get it going. But apparently we had some dehalococcoides in the soil, and once the PCE and TCE were desorbed off of the clay, they got all excited and started to work. And because they had low oxygen in some areas, for whatever reason the ORC didn't get distributed -- well, the reason is it's clayey soil, it's very hard to get it

to go into the whole matrix. And so you had some low dissolved oxygen in some areas, and the high TOC, which also serves as electron donors to get the reaction started. And so that seems to have helped us get going. And, like I said, once you get the car started, you're essentially rolling downhill with this reaction. And so we are seeing a decrease, a little increase of VC, but now we're seeing decreases as well. So hopefully we will continue along that path. And so like I've said, we've done three quarters of monitoring, we're hopefully going to keep going down that path --

CO-CHAIR HAYES: Brooks.

MS. PAULY: Yes, ma'am.

CO-CHAIR HAYES: Given these results, are you going to continue or are the agencies going to require you to continue monitoring past four quarters?

MS. PAULY: Well, we're going to see what the fourth quarter brings, and then we're going to make a decision at that point, absolutely. Because we gotta make sure we're below all the levels for the industrial use of the area. So at some point this reaction may slow down or stop, or may not have enough energy because there were no high concentrations, not really high concentrations to begin with anyway. At that point it's possible that we could do something else if need be, if the concentrations don't get low enough. So that's kind of where we are too. And I should say that basically the same is true for the soil gas. So again, vapor intrusion being our driving concern here. And happily, we're only over the PAL's in the Former Degreasing Plant Area here, so you can kind of see these little red bits. But they are going down. And VC has gone down, you know, it's actually by more than half from the second quarter to the third quarter. So we're on the way. Hopefully, like I said, that truck will keep going very quickly.

So our path forward, as you mentioned exactly -- good foreshadowing, Myrna, thanks -- we submitted the Draft Project Summary Report, which is basically just a report that talks about what we did last summer. So we submitted that to the agencies mid-November. They got us comments right away -- thank you very much. And we're working on getting those finalized. And the next round of sampling is in April. And then after that the groundwater and soil gas monitoring report will discuss the four quarters and be submitted as a draft to the agencies, probably around July. And at that point obviously, as soon as we get the results we'll start trying to figure out what the next best step is so we can keep the project rolling as well. Hopefully all the concentrations will be below the PAL's in the fourth quarter. But if they aren't, we do have, as we mentioned back in August, the option of possibly doing a risk assessment on the data that we do have, and we may have enough data to show that the risk is within the acceptable range, like I said, for an industrial site, which this is. So as we mentioned before, this land use for this area is industrial with the usual restrictions against residential, housing, schools, and hospitals, and things like that. So that is the plan. Are there any questions? Yes, Gil.

MR. HOLLINGSWORTH: (Unintelligible.)

MS. PAULY: You can just yell at me, I'm married, I'm used to people yelling at me.

MR. HOLLINGSWORTH: Let's try that. I have a quick statement or a lead into it and I have a question.

MS. PAULY: Okay.

MR. HOLLINGSWORTH: That building is probably, of the already non-committed buildings on Mare Island, is probably one of the best examples of a building that would bring businesses to Mare Island and jobs. And so my question is, and I can only think of one other building on the island that is more marketable than that building, and that's right across the street in 680.So here's my question. The work that you have left to do that, is that in any way restricting the leasing of that building if we were able to find it [a company to lease the building]? And keep in mind where that building sits. You know, we've got that shipbuilder or ship breaker coming down the waterfront now, hopefully expanding his business more and more and more. And that is a natural place for either him, or a like industry, to pick up and go into. So my question is, can you think of anything that would restrict us from using that building anytime soon?

MS. PAULY: I don't know of anything at the moment. And we've certainly talked about the possibility of that. It sounds like that might be a better question for our BEC.

CO-CHAIR LEAR: No, I don't see any reason why that building couldn't be used. I think we've seen some data that Lennar and CH have done that doesn't show any kind of an issue inside the building. And for this particular project I think probably all we have left is groundwater monitoring and possibly some additional injections potentially to keep those levels down in the outside area.

MS. PAULY: It would just be periodic gating off of that area if we needed to do something in the area. But the building itself, we have no plans to do anything within the building. And Devon.

MS. SWARTZ: Yes, I'm an environmental health -- I'm taking an environmental health class at Touro right now, and so I'm doing a project, and so I'm relatively uninformed about this project that you're talking about. And I was just wondering what the stimulus behind it in terms of who the agencies are that are either requiring it, or is it the Navy that's doing it on its own accord?

MS. PAULY: Well, it's not really on our own. Obviously we work very closely with the agencies, with DTSC and the Water Board and EPA, so absolutely. Are we allowed to talk about the contract and the Navy retained condition? I think we are.

CO-CHAIR LEAR: Sure.

MS. PAULY: Okay. Basically when the property was -- there was an early transfer of this property by the Navy to Lennar, and subsequently to the city -- I think I'm saying that wrong. But basically there was an early transfer of this property out of Navy control. However, as part of that transfer, there was a legal agreement that there were certain things that, if found, the Navy would retain as a Navy retained condition, and we would be responsible to clean up. So that's how that started.

MS. SWARTZ: And then what is the DTSC.

MS. PAULY: Oh, I'm sorry, the Department of Toxic Substances Control.

CO-CHAIR HAYES: I'm vindicated.

MS. NAITO: You're right.

CO-CHAIR HAYES: Acronyms. One day I told you those acronyms would catch up with you.

MS. PAULY: So true. So true. Any other questions?

MR. COFFEY: Brooks, just in order to complete the picture.

MS. PAULY: Michael, absolutely.

MR. COFFEY: The area of the storm drain that was excavated was only the crushed section; right?

MS. PAULY: Right. And we would have even gone a little bit farther down to where we thought that -- down to where the other storm drain, the manhole was located, but we ran into a bunch of utilities, and it just didn't seem to make sense to go any farther with it because --

MR. COFFEY: This did run into the strait though; right? Originally the storm drain ran right into the strait?

MS. PAULY: The original storm drain did, however it had been crushed for years and years, so it wasn't running as a storm drain for quite a long time.

MR. COFFEY: Any idea what crushed the storm drain? What was it constructed of that it would get crushed, clay pipe?

MS. PAULY: Some of it was clay.

MR. COFFEY: So old.

MS. PAULY: It was very old, exactly. Just from the shifting and just from age, yeah, absolutely.

MR. COFFEY: So beyond that manhole where it was plugged, did you guys ever investigate what's beyond that manhole? I mean it wasn't of any interest or any necessity to clean?

MS. PAULY: My understanding is that there were samples at the strait that were -- that indicated no impacts.

MR. COFFEY: Okay. Thanks.

MS. PAULY: Sure. Good completion to the picture. And did I see -- yes, Neal.

MR. SILER: Yeah, Brooks and Gil and Janet, just to give you some more information about this Building 742. It will be a while before we can actually reuse that building or have it leased out because there are five or six PCB sites that are currently being remediated in there, so it will take a while.

MS. PAULY: Okay. And so they would preclude, that remediation would preclude the use of the whole building?

MR. SILER: Until we get closure of those sites. And then once we do that, then it would seem like you would be able to go in and use the building.

MS. PAULY: Okay.

CO-CHAIR LEAR: But nothing in this particular project would preclude it.

MS. PAULY: That's a good point, though, Neal, yeah. I didn't want to discount your PCB sites. Any others?

(No response.)

MS. PAULY: Perfect. Thank you all so much.

III. PRESENTATION: *Implementation of Remedial Actions at Historic Independence Wharf Area Investigation Area C3*

Presentation by Mr. Neal Siler (Lennar Mare Island)

CO-CHAIR LEAR: And our second presentation is by Neal Siler, and he's going to be presenting implementation of remedial actions at Historic Independence Wharf.

MR. SILER: Okay. As Janet mentioned, the subject of my talk is implementation of remedial actions at Historic Independence Wharf. And what I'm going to present tonight is summarize the remedial actions that took place between September, 2010, and February, 2011, at the site. I'm going to show you some photographs of the work that actually took place. And I'm going to discuss the path forward.

Now, the last time I talked about this site was back in June of 2010, and at that time we told you what we were going to do. And on this slide we're going to tell you what we did. So how I'm going to do that, I'm going to who you --

CO-CHAIR HAYES: We also saw that site on our RAB tour --

MR. SILER: That's correct.

CO-CHAIR HAYES: -- so that wasn't exactly the last time we heard about it.

MR. SILER: That's correct. And so I'm going to talk about the location, give you an idea of where it's located. The description and the background. The proposed remedial actions. What actually took place. Talk about the path forward. And answer any questions that you may have.

So going back, the site is in the southeastern portion of Mare Island. Covers an area of about 2.2 acres of a property, that's used for industrial purposes. It got its name from the fact that from 1857 to 1937 it was used as a wharf for a receiving ship. And that receiving ship was the U.S.S. Independence which was commissioned very, very shortly after the end of the war of 1812 and 1815, and actually was kept in service until 1913 at Mare Island. After that time, other ships -- it was actually demolished -- other ships were used as the receiving ships at that location, one of them being the U.S.S. Intrepid that was actually constructed here on Mare Island. And then in 1937, when the Navy's needs changed and they wanted another dry dock, they actually decommissioned the wharf and put in Dry Dock 3.

So the constituents of concern at the site are petroleum hydrocarbons, as diesel and as motor oil. And they found those constituents over a number of investigations that took place between 1997 and 2010 involved trenching, soil boring, groundwater sampling, and an ultraviolet optical screening tool program, a removal action. So quite a bit of work had gone in here before we actually went in here and did the work that I'm going to talk to you about tonight.

So the constituents of concern at the site were total petroleum hydrocarbons [TPH] as diesel. And we're cleaning those up at levels that were above the Tier 2 Screening Level which is 2,100 milligrams per kilogram. And I think the highest concentration of diesel that we encountered at the site was about 22,000 or 23,000 milligrams per kilogram. And then we also have total petroleum hydrocarbons as motor oil. The cleanup level there is 5,000 milligrams per kilogram. Again, the highest concentration that we discovered at the site was about 24,000 milligrams per kilogram in a soil sample.

Now, when you see that term "separate phase petroleum hydrocarbon," that's kind of telling you that we actually have product that's actually in the soil and in the groundwater. So that's like a million parts per million and so that's pure product when you have that.

So what we proposed to do was: Remove the separate phase petroleum hydrocarbons. Excavate soil that was impacted by petroleum hydrocarbons above the Tier 2 Screening Levels. Evacuate groundwater that was in the excavation that could have been in contact with the source materials. Inoculate the excavation with ORC, or an oxygen releasing type compound. Then we're going to collect confirmation samples. Backfill the excavation. And restore it to its conditions that we could use it again in the future.

Now, as we've said numerous times, and Brooks had it in her slide, the remedial action objective, the first one is actually protect human health and the environment. And from our standpoint is to restore the site to the extent necessary to support the existing and future use at that area which is a commercial/industrial use. Now, this slide right here just shows you what the site looked like before we actually implemented any remedial actions. You can see it's very, very close to the water. You can see this -- Cooper Crane actually is our tenant at the site. So what we actually did was we removed soil that was impacted by petroleum hydrocarbons, about 9,600 tons. We removed separate phase petroleum hydrocarbons, about 10,000 gallons that were evacuated out of the excavation. We also removed TPH impacted groundwater, about 64,000 gallons. The product was actually disposed of off-site. We were actually lucky enough to be able to dispose of the majority of the groundwater under permit to the Vallejo Sanitation and Flood Control District storm drain on the site -- sanitary sewer, excuse me.

We also collected 55 confirmation samples. We had some that were above. Where they were above we actually overexcavated those areas. But when we actually got down to the entire excavation, nothing was left in place above the Tier 2 Screening Levels. We inoculated the excavation. After we actually put in drain rock, about 3,800 tons of drain rock, put in about 6,000 pounds of a compound that is an oxygen releasing compound called EHC-O. And the only difference between that and ORC is ORC is a compound that's manufactured by Regenesis, and EHC-O is a compound that's produced by Adventis, so it's just a different manufacturer. And then we also put in 12,000 pounds of a microbial nutrient supplement to stimulate the biologic activity, to break anything else down. We backfilled the excavation. Had about 6,200 tons -- 5,200 tons -- excuse me -- of soil, about 1,100 tons of class two base rock, and then covered the excavation, after we installed the infrastructure that we needed for that site, with four inches of asphaltic concrete. Of course, it wasn't over there, since we took this out, we wanted to make sure that these remedial actions take hold and there isn't any problem down the line, so we did actually install six groundwater monitoring wells and initiated a groundwater monitoring program.

Now, we performed that initial program in February, and the maximum diesel concentration that we found was about 150 micrograms per liter. Maximum TPH as motor oil that we detected was about 470 micrograms per liter. So both of those concentrations, at least in this first event, are below the Tier 2 Screening Level of 640 micrograms per liter.

So what this slide shows here is the extent of the excavation. We originally proposed that the actual surface area was this large area right in here, and then there's two small excavations, one to the north and one to the northeast over here. It covered an area of about 11,000 square feet. Turned out it covered about 17,000 square feet of surface area. And the average depth of the

excavation is about twelve feet deep. So you can see here this shows you the extent of the excavations. These are the concentrations of the confirmation samples. We also took soil samples when we installed the wells. There's three of the wells right there. There's one right there, one right in the middle of the excavation, and one upgradient right here.

This slide shows you the results of the groundwater event that we just initiated. All three of these wells that are right along the strait, they were non-detect. We had one in here was about 120, and one was about 150, and then we had this one background well up here.

So this next series of slides show you the work as it progressed on the island. The one on the left shows you the initiation of work which we started removing the asphalt about September 30th of last year. This is an early stage of the excavation. You can see the petroleum product floating on the groundwater right there. This slide on the left of -- this slide or the photograph on the left side shows you the excavation at a mature stage. You can still see some of the free product on top of the groundwater here.

And then, of course, whenever you dig on Mare Island you never know what you're going to find, and we did find a lot of infrastructure through here. If you look at the eleven by seventeen figure that Steve Farley prepares, there's another picture of this on it. You can see a slide of one of the excavators actually pulling out a lot of piping, just a lot of metal that was in there. But we actually found these. Now, somebody originally thought maybe these may have been the tanks that were there, but they were put in such of a jumbled way, they were just on top of each other, that I don't think they were the tanks, although they were full of oil saturated sediment when we pulled them out. And then the next slide shows you a closeup of one of these boxes. It was about two feet by two feet by four feet long, so about 110 gallons, so not very much capacity. And the other thing that we found was we found this lead and brass artifact that we salvaged from the excavation, and we stored that for the museum. But this I think has something to do with some sort of water transmission. And again, it was just kind of thrown in there in the area. Because when you have a reclining figure like that -- if you've ever been to the Vatican museum or the Louvre, that's very, very reminiscent of a river God. And so that's why I think this thing had something to do with water. I'm not sure too, if you look here on the stamp right here, 1842, New York. It was manufactured in New York. So it's one of those little interesting things whenever you poke a shovel in the ground out here at Mare Island, you never know what you're going to find.

So the next slide shows you where we're starting to backfill the excavation. This is the drain rock that goes in. The one on the right shows you the spraying of the EHC-O compound, the oxygen releasing compound, as they sprayed it in the base of the excavation. The next slide shows you the geofabric that was laid down on top of the drain rock. And then they're starting to backfill with soil at this slide here. And the soil that we use is actually one from one of the stockpiles that we have on site. We sampled it and presented the results to the regulatory agencies, and received permission to go ahead and use that soil as backfill on the site.

This next slide shows installation of the monitoring wells. You see they're direct push, and they're actually pre-packed screened, well screens right there. Usually they went from about four feet to about 19 or 20 feet below ground surface.

So what's next at this site? We've done one groundwater monitoring event, we're going to do three more. Looks like we'll do those probably in May, August, and November. We're going to be submitting a report of all the remedial actions that took place, hopefully we can do that next

month. We'll also submit the first quarter groundwater monitoring results, implement those three remaining groundwater monitoring events, prepare a groundwater condition assessment, and see if it makes sense to go ahead and stop the monitoring at that point, or if we need to do more monitoring and evaluate it if we have to do additional remedial actions. So with that, that concludes my presentation. If anybody has any questions, I'd be glad to answer them.

MR. COFFEY: Neal, since this was originally the Independence Wharf Area, was that open water when the boat was there?

MR. SILER: There was actually a wharf. There was open water there, it's part of a fill area obviously when they put the dry dock in. There was an area that kind of went out, it was kind of a marshy area as it went down to the strait, and then the actual wharf itself went out, and it was an L-shaped wharf, and it went parallel to the strait.

MR. COFFEY: So the entire area was filled in?

MR. SILER: It appears it was filled in.

MR. COFFEY: Any idea with what or from where?

MR. SILER: I couldn't tell you, you know.

MR. COFFEY: Because I mean it looked like -- you know, the dark -- in one of the picture it looked like a lot of dark soil, looked like it may have been mud or something.

MR. SILER: Well, you're probably going to get down into mud that's actually been deposited --

MR. COFFEY: River silt.

MR. SILER: -- from the strait, so that's what you're probably seeing there. Yes, ma'am.

MS. SWARTZ: What is the geofabric made of?

MR. SILER: It's kind of a plastic material, so it's laid down -- it actually has some able to breathe through it. What we're trying to do is actually make sure nothing falls through to that drain rock so we have a good solid base when we actually do the backfilling. Myrna.

CO-CHAIR HAYES: Did you ever tell us, and I was just daydreaming, what was the source of this product?

MR. SILER: If you remember back to the presentation I gave last June, it was always thought to be this underground storage tank that was associated with Building 142.

CO-CHAIR HAYES: But you never found it.

MR. SILER: Nobody could ever find that storage tank.

CO-CHAIR HAYES: Maybe that was the problem.

MR. SILER: Could well be. But they, like I said, they did all sorts of geophysical investigations, did intrusive excavations, trenching, you know, soil borings. You could find petroleum hydrocarbons, but you couldn't find any source that you could say that's what we're looking at right there. Wendell.

MR. QUIGLEY: Was there anything attached to this 1842 piece?

MR. SILER: No.

MR. QUIGLEY: Was it attached to anything?

MR. SILER: No, it wasn't attached to anything, it was just kind of laying on its side in there.

MR. COFFEY: Probably a throw overboard piece.

CO-CHAIR HAYES: Sure.

MR. QUIGLEY: Think so? Interesting.

CO-CHAIR HAYES: How did you determine which was the 10,000 gallons that were disposed of off-site and which got pumped to the sanitation district? I mean, where did those two sources come from?

MR. SILER: Well, the reason that it was disposed of off-site is you had actually pure product, so you had oil in there, and then you had oil mixed with water in there. So when you look at the stuff, and even the stuff that we pumped out, it's stored temporarily in storage tanks, and then we actually test that material. Now, usually if we know it's going to go off-site, when you see the oil and you see the oily water, obviously we're not going to dump that in the sanitary sewer, we know that has to go off-site. But then when you look at the Vallejo Sanitation and Flood Control District and the water looks pretty clear, then there's a number of parameters that they ask you to test for.

CO-CHAIR HAYES: Yeah.

MR. SILER: Usually there's metals, there's total phenolics, there's TPH, there's pesticides and PCBs, and then you have to make sure that you do it to the correct method. Like for pesticides and PCB's you want to use method 8081 and 8082, they'll reject that, so you have to use [method] 608. So you have to make sure you're doing everything that they need to according to the Clean Water Act to meet the requirements.

CO-CHAIR HAYES: Yeah, I am aware of that, but thank you for the rest of the folks. What I was trying to determine is, that's a lot of water. Will that water then be moving back in? I mean what -- you don't have any -- I mean you're not trying to keep it dry or anything like that?

MR. SILER: No, there's no way you could keep it dry unless you wanted to build a coffer dam or something around there, and that would get really expensive.

CO-CHAIR HAYES: I know that. I know how you could do that, but what I'm trying to say is not -- is not -- is did you have any reason to or what you were doing here was just taking all the groundwater away that met the criteria, and then at some point you were at a point where you didn't need to take any more of it away?

MR. SILER: And that's exactly what happened as we did these results because when you saw this water mixed with the product, the whole idea of evacuating the water is to remove mass, as much mass as you can, because the free phase hydrocarbon is source material. So you want to get that out of there as much as you possibly can. And once we started to see the water clear up quite a bit, then we started putting it in different storage tanks. We filled the storage tanks that looked like they were very, very heavily contaminated or contained a mixture of water and product. When it started to clear up we put that in different storage tanks. Any other questions?

(No response.)

MR. SILER: Thank you very much.

CO-CHAIR LEAR: Okay. This brings us to the first public comment period. If anyone has any comments?

MR. BROWNE: I'd like to make a comment here. I brought some cake and coffee tonight for a couple of celebrations. One is for the Flyway Festival that was just completed this month, very successfully, and I think Myrna is going to do a report on that later.

CO-CHAIR HAYES: You can do a report, that would be fine.

MR. BROWNE: But we had probably the best weather ever, seventy degree weather. Great new location. The new building worked out very well. And lots of people showed up. And I know that I did a hike and a half on Friday, and also a hike on Sunday, and had over sixty people total for the hikes. So we had a great turnout. And everywhere I went I saw lots of people coming up to that, so I just wanted to acknowledge Myrna and everybody who came out for the Flyway Festival.

And the other celebration is that I'm retiring from the RAB. My wife and I are moving back to New York to be near our children and our grandkids at the end of April, May, so this is going to be my last RAB meeting. So enjoy the food.

MR. COFFEY: Thank you.

MR. QUIGLEY: We'll miss you here and we'll miss you at church.

CO-CHAIR LEAR: Okay. So we've got a ten minute break unless you want to --

MR. FARLEY: I had one other thing to add. One is, to echo what Kenn just said, that I had several colleagues and actually folks in Petaluma that I know that attended the Flyway Festival and had a great time. They got to go places they normally don't get to go and with folks who knew something about those locations, so everybody had a great time. So thanks to the entire gaggle of folks that helped out with that.

The other thing is there's a website for the ship that came into Dry Dock 3, the Solon Turman. There's a website down here at Western Dovetail, the manufacturing facility -- did they make drawers and cabinets and --

CO-CHAIR HAYES: Dovetail drawers, only drawers.

MR. FARLEY: Dovetail drawers. Anyway, they've been kind enough to put up a webcam in that window. And if you go to that website, www.drawer.com I think it was.

CO-CHAIR HAYES: www.drawer.com.

MR. FARLEY: They have updates. It used to be every minute, but I think it's a little longer than that. But they've got a really nice panoramic view, and they also have a slow motion or actually a fast motion speeded up motion of when they brought the ship into the dry dock. And as you stand there and watch it actually come in, it doesn't look like it's moving around very much. And when you see that thing sped up at -- what was it? -- probably ten times its normal speed, you really get a sense for how much that thing was moving around when they were pulling it into the dry docks. So anyway, just heads up if anybody has any interest in that.

CO-CHAIR HAYES: He also has, further down on that page, scroll down, he has his first attempt, Max's first attempt at a HD movie on it. And he did a good job, it's a good movie of the whole -- of the whole process. And I guess I would like to follow up with what Kenn and Steve

have mentioned now, might as well. And that is that I really would like to thank a huge team of people who mobilized to put the Flyway Festival together in a new building. And that is always a tremendous challenge. Any of you who are construction managers just know that mobilizing to a new location just presents challenges and opportunities. And we were really pleased that Lennar agreed to allow us to use the building that we had the festival in this year. And I specifically looked for a building that was close to the entrance of the new walking trail that has been opened at the landfill area. And I think the building did work out really, really well. It had electricity and running water, though one restroom of the two did not operate for the entire weekend, but it does operate again now, so -- And Kenn, I just want to -- and I would specifically like to thank CH2M Hill and Weston Solutions for their tremendous financial contribution that made the festival possible because it does take money to put on a big event like that.

And I'll pass around a wonderful letter to the editor. My friend said today it sounded like the night before Christmas, the story about the Flyway Festival, written by a woman from American Canyon who's been a long-time contributor to the art show for the festival. So it's a pretty amusingly written article or letter to the editor. Kenn, I don't think that cake and coffee provided by you can possibly -- could possibly help us celebrate the contribution --

MR. GEMAR: Should have brought beer, Kenn, come on.

CO-CHAIR HAYES: Yeah. We were supposed to bring that, apparently. There's no way that we can really begin to describe the contribution that you've made over these decades, I think, at Mare Island. Not only serving on the Restoration Advisory Board -- I guess you would be the third longest serving board member after Paula and me -- but also your taking the initiative to begin to guide hikes at a time when it was not at all easy to get access to guide hikes, both at the Flyway Festival, from the very first event, which was actually hosted by the Navy sixteen events ago prior to the Flyway Festival, you scheduled an outing, guided walk as you did this last week, and worked with the Navy to make that possible, and had every bit as enthusiastic a turnout as you did at this one. And I want to thank you for also opening up the walks to the historic shoreline long before we got it together to open the rest of the south end of Mare Island to the public on a regular basis, and your commitment that you've continued to make those monthly walks happen. So it's going to be hard to fill your shoes, as they say, with all those guided walks, but I imagine you've probably guided, what, maybe 3,000, 5,000 people?

MR. BROWN: I don't think that many.

CO-CHAIR HAYES: Oh, I do. Yeah. Yeah. Yeah. It sounds like a good number anyway. And we'll look forward to visiting you in Brooklyn. All right.

CO-CHAIR LEAR: Okay. I think we have our ten minute break for cake.

(Thereupon there was a brief recess.)

IV. ADMINISTRATIVE BUSINESS (Myrna Hayes and Janet Lear)

CO-CHAIR LEAR: Okay. So we're at administrative business. And as always, the meeting minutes for last meeting, if you'll get any comments that you have to Myrna or myself in the next few weeks, that would be greatly appreciated. Did you have any admin?

CO-CHAIR HAYES: I already made my administrative comments.

V. FOCUS GROUP REPORTS

CO-CHAIR LEAR: Okay. All right. So focus group reports. Community, Wendell.

a) Community (Wendell Quigley)

MR. QUIGLEY: Yeah. I have a question for Gil. It's about this, so it goes around. It's about the ponding water there on Azuar. All of the local people are all disturbed about that. Oh, it wouldn't even be for Gil, I'm sorry, it would be for Neal. For the ponding water there on Azuar and Dump Road, like right now tonight it's about eight inches deep, and I talked with you about it as well.

CO-CHAIR HAYES: I brought it up.

MR. QUIGLEY: Yeah. Yeah. But I also talked with the Co-Chair and them about it. Do we have any update for it?

MR. COFFEY: That was a while back.

MR. QUIGLEY: Yeah.

MR. COFFEY: Obviously not. Moving on.

MR. QUIGLEY: Moving on.

CO-CHAIR HAYES: Well, the construction manager for Lennar, Brian McDonough, said they were waiting for the grasses to take hold so that the -- because they have some of the drains still clothed or filtered or whatever, and so the storm drain's capacity is diminished right now until that grass cover grows in at the -- I think you're talking about the Crane Test Area. However, I do go there quite frequently to close, open and close that gate. And I did mention at the last meeting or whenever we had this conversation, I'm beginning to lose track myself, that at a minimum that needs to be signed, "Subject to Flooding," and it is not yet signed. And I mentioned very specifically something very personal, and that is that my head injury is due to hydroplaning. And I'm right with the residents in saying that if you have a mechanical problem, which that is, a temporary, hopefully, mechanical problem, and it is due to the environmental cleanup, that you will take some measures to warn people or to detour people.

I'm with Wendell, I didn't know which route to go when I approached on Saturday night, it was fully flooded, A and Azuar. I did not know what direction to go to get out, to avoid that water. And it is directly related to the environmental cleanup of that site.

MR. RASMUSSEN: Myrna, there's another area ponding next to the Alston building, I think it's on the Nimitz side.

CO-CHAIR HAYES: But it's signed at least, it says, "Subject to Flooding."

MR. RASMUSSEN: Well, yeah, but it's still pretty bad and it's been that way forever. And there's a drain right there that is revealed when it finally dries up.

CO-CHAIR HAYES: Well, you know, every -- Mare Island is an island, and a sinking island at that, a sinking ship, and I can't expect that every single site on the island that floods is going to be resolved; but this one is, I don't recall it flooding like that until after the remedy was in place for the Crane Test Area. And I do believe the construction manager that the drains themselves are constrained by the filter cloth until, you know, you're sure that run-off isn't going to impact the storm drain system. So, you know, those might be more long-term fixes on some of those other sites, or maybe there is no fix. But signage is a minimum. And I know there are other

locations on the island where "Subject to Flooding" signs are posted. And that seems just logical to cover your risk, just your insurance risk.

CO-CHAIR LEAR: Okay. So I'm going to follow up with this. Who would we call to get some action on this? Would that be Gil? Is that the city?

MR. HOLLINGSWORTH: No, it's not.

CO-CHAIR LEAR: No?

MR. HOLLINGSWORTH: No, that -- those roads haven't been turned over to the city, they're part of -- it's part of the environmental issues.

MR. SILER: I'll bring it to Brian's attention to see if we can get that resolved.

CO-CHAIR LEAR: Okay.

MR. QUIGLEY: Thank you.

CO-CHAIR LEAR: Is that the end of your report?

MR. QUIGLEY: Well, I'd also like to know what's happened with the old jailhouse now that they've dug it all out and filled it all back in, if I dare ask.

CO-CHAIR HAYES: Why isn't that on the agenda?

MR. SILER: What they're doing right now is there --

CO-CHAIR HAYES: Could you use the microphone?

MR. SILER: -- taking out the underground storage tanks at the site. So they just started to initiate that, and that will probably be taken care of probably in the next six to eight weeks, I would imagine.

MR. QUIGLEY: Thanks, I'll pass that on.

CO-CHAIR HAYES: That brings up, if you do have actions like that taking place that it sounds like are environmental issues, it would be helpful if you could go ahead and schedule that type of topic for the agenda. And maybe we could have that on the March agenda. Because I was not aware of what you were doing at all, it was a complete surprise. I think it's important to circle back around early and often is the RAB law, communication about environmental cleanup early and often.

b) Technical Report (Paula Tygielski)

CO-CHAIR LEAR: Technical report, Paula.

MS. TYGIELSKI: Nothing to report.

c) Technical Report (Paula Tygielski)

CO-CHAIR LEAR: City report.

MR. HOLLINGSWORTH: Nothing to report.

MR. COFFEY: Nothing about that ranking of our wonderful City of Vallejo?

d) Lennar Update (Steve Farley)

CO-CHAIR LEAR: Lennar?

MR. FARLEY: We have a handout that we brought tonight. Let me start with the lower left corner where there's a series of tables referring to the number of documents and the types of documents, etcetera. And there are two things I want to point out. One is, if you'll look at the titles of those documents, you'll see a lot of them are requests for closure or implementation reports. I mentioned last month that those types of documents are such that we're coming to the end of the cleanup and hoping to get approval for certification for those sites as being closed.

The other thing I want to mention here, and Janet mentioned something to me just a little while ago, the documents that are in review and the significant upcoming documents, these tables are really intended to be highlights. There are many, many, many more documents in review by the agencies that are listed here. And I hope I haven't given anybody the misimpression that these are the only documents being reviewed, this is truly just the highlights. So thank you for making sure I clarified that, Janet.

Let's go to the photographs. Let's go to the one in the upper right. That's a rig that's abandoning or destructing or destroying a well, depending on how you want to refer to it. Basically it's getting rid of a well that's been out there. It's done under county requirements. And what you're actually seeing there is -- the white, the tall white thing in the middle is actually the well casing. In many cases we're able to just pull the casing out and then backfill a hole with grout using a tremi pipe. Sometimes you have to drill the well out to destroy it. But in this particular case we're able to actually pull the casing out. So you can get an idea of the diameter of the casing. You can get -- in this case you can get an idea how deep that well was. So, just an example of a well abandoned. In the lower --

MR. HOLLINGSWORTH: Can I ask you a question? And this is just for my own knowledge, I'm not questioning. But why do you have to go to that extent? Why can't you just walk away from it, cap it off some way and walk away from it?

CO-CHAIR HAYES: Good question.

MR. FARLEY: Yeah, it is a good question. Well, first of all, it's a county requirement to do that. And it's -- if you boil it all down, it's for protection of the groundwater system. Even if it's not a drinking water well or a drinking water system, it's just to make sure that the well doesn't cause any problems in the long-term and is not a conduit. And the other thing is that over time, if you have wells in for a very long time and they're not checked and, you know, if you don't look for damage to the well, sometimes heavy equipment drives across the top of a well, and if you don't inspect it on a fairly regular basis it gets damaged. And that's not a very good thing for the groundwater systems in general. We don't have drinking water in the shallow zone to speak of --

MR. COFFEY: Thank God.

MR. FARLEY: -- but the idea of abandoning those wells is to keep from inadvertently causing some problems.

CO-CHAIR HAYES: Keep Timmy out of the well?

MR. FARLEY: Yes.

MR. MEGLIOLA: Keep Jessica out of the well.

MR. FARLEY: Yes.

(Thereupon there was simultaneous discussion.)

MR. FARLEY: And the other things is you can imagine how many wells are in the county, they've got a very rigorous program for that, of permits and inspection, so that sort of thing. So good question.

If we go to the photograph on the left-hand side, that's an example of the work that Neal talked about during his presentation for the Independence Wharf work. In the upper left is a photograph taken from the south side of Building 69, up about three flights, and you can see the number of activities going on, those are drill rigs. And there's actually three drill rigs in there, and then another rig that's doing some development of the wells. There are various kinds of wells, borings, injection borings, remediation wells, monitoring wells. There's a lot of activity going on here. And although it's hard to tell where the individual points are, I just wanted to show how much work is going on in a very small area all at the same time.

CO-CHAIR HAYES: These are great photos, Steve, as always.

MR. FARLEY: Unfortunately I didn't take any of them. Thanks for pointing that out, Myrna.

CO-CHAIR HAYES: They're still good.

MR. FARLEY: Let's go to the main map. If we start in the upper right up by IR-03 you'll see a label for Building 461. We've submitted an implementation report for that. IR-0720 we're doing groundwater monitoring, looking for closure on the groundwater. Same thing for the area at Oil Water Separator T-2 and Pump Station 4. We've actually recently received closure on UST 693. Thank you to the agencies for that. For the area IA-C1, we're revising the remedial action plan, the document that lays out what remedies are going to be implemented.

If you look down where the IR-15 is, sort of the square green box, that's IR-15 which is where the drilling is occurring. Next to that are some identifiers for fuel oil pipelines, FOPLs, and those pipelines we've done some soil gas investigations there recently, we're doing some groundwater monitoring. Just for the sake of sort of long-term knowledge, I guess, the FOPLs, these fuel oil pipeline segments, are typically named with this sort of three codes, if you will. In this case it's G1/6/7E. And that refers to the location of the fuel oil pipeline, the diameter of the pipeline, what buildings it connects to. For example, the B493/971, that's a pipeline that goes between those two buildings. The Navy had a fairly formalized way of naming that because they had something on the order of 45,000 feet of pipeline out here, so they had to keep it organized with grids and that sort of thing.

Coming down to -- Myrna, you asked about the UST 84, we're doing the removals, the UST removal down there. We'd be happy, I think, to give a presentation on that next time. I think we've done a couple of presentations for that building in the past, but we'd be happy to give an update on that for next month.

CO-CHAIR HAYES: Well, the past presentations were that you were going to tear the building down, that was it. I mean, that was what you thought your option was. So that's the latest that I know. And we did a site visit about -- I don't think it was at the last RAB tour, but the one before.

MR. COFFEY: Yeah.

CO-CHAIR HAYES: And you didn't know what the you were going to do about it. So I don't care how many presentations you've given, it's an update.

MR. FARLEY: This is -- yeah, I understand what you're saying. This is a slightly different issue. This is a UST that's outside of the building. But maybe it would be worthwhile to give that presentation just to clarify the two things from one another. We prepared a draft implementation report for the Building 386/388/390, and the IR-21 Area, which is the building that's located just to the north of the C-2 label. For Building 680 we're preparing some responses to comments on the site closure for that building. I don't know who had -- I think there was a RAB tour, Myrna, to the Building 680; is that correct?

CO-CHAIR HAYES: (Nodded head.)

MR. FARLEY: And then next to that there's Building 688. There's some pits inside that building that we're cleaning up. We have to remove some steel plates, flush -- there's some sort of a crust of just dirt, and it's not really sediments, but it's dirt, and that material is going to be removed. The pits are going to be cleaned out.

And then the last thing that I'll touch on here is we're preparing for IA-C2 the Draft for Public Review Remedial Action Plan. So those are the highlights for this month. I'd be happy to take any questions.

(No response.)

e) Weston Update (Dwight Gemar)

CO-CHAIR LEAR: If there's no questions for Steve, then we'll go on for the Weston update.

MR. GEMAR: All right. Hopefully everyone had a chance to pick up a flyer for the Weston Solutions update. And I've tried to use a larger font size now to try to fill in a page. So it's basically -- the fieldwork is definitely winding down and has wound down. But as you can see on the left-hand side, we have been busy on documents. Two documents were approved by DTSC, both related to the munitions removal work down at the Western Magazine Area and IR-05. And if you look on the background photo, of course, the Western Magazine Area is those buildings kind of on the left-center column there in the background, and IR-05 is the land mass right at the very bottom of of Mare Island.

And also there is a number of documents that have been submitted for review. An annual report for our monitoring of the Western Early Transfer Parcel which is the old dredge ponds and the areas out on the western side of the island. As well as a remedy completion certification letter. The last -- technically the last remedy that was implemented was the trail itself, so, you know, we're basically requesting DTSC to review that and to indicate whether they are in concurrence that we're done with the remedial work related to the property that was transferred way back in 2002. Another big document that was submitted was the Draft Final Remedial Investigation Report for, again, for IR Site 05 and the Western Magazine Area. And that's under somebody's desk right now, a prominent location. We submitted the draft, a completion report for the time critical removal action that was done at the -- at IR Site 05. And again that was done last year. And then we submitted a closure certification report for the containment area portion of Investigation Area H1 or basically the landfill area.

And then a couple of documents that the Navy is looking at right now is a completion report for the rest of Investigation Area H1 documenting the cleanup work that was done, and then a post closure permit application, post closure care plan that will be submitted to DTSC after the Navy review. So quite a few documents in the last month or so.

And then in the upper right just a note there that the trail -- we did a little repair work from the heavy rains, and put a bike rack out there in the parking lot. And noted that quite a few people have been using the trail, especially during the Flyway Festival. So that's gratifying to see some folks taking advantage of the trail.

And then one note also related to IR Site 05 there at the south end of the island, we did get a request as part of the review process from DTSC on those munitions reports that there was a number of locations where one of the technicians had wrote in their log book that they had seen some, you know, stained soil or odor that they noted. And DTSC wanted us to go back and take a look at those sites. So we went out in early February, when the weather was still pretty nice, and punched 42 holes in the ground at those locations. And had a geologist out there to observe. And six locations looked like they were of interest either due to petroleum odor or a green dye which had been noted in the log book. So we took samples at those locations, and as soon as we get results we'll take a look at those concentrations, if there's any contaminants there. And if there are any that exceed the screening criteria, we'll incorporate those into the remedial investigation report, and have a path forward on that. So that's all I had.

CO-CHAIR HAYES: How -- how deep are these slight petroleum odor green dye sites? I mean 42 of them, that's pretty precise. And six had some odors or colors. That's like totally needle in haystack stuff. But why didn't just an extra scoop shovel or two get passed -- pass over those 42 sites when you were out there playing in the mud?

MR. GEMAR: Well, unfortunately, the answer is that those comments were just overlooked before. When the UXO technicians were out there, they were looking for bombs basically, and they dug a lot of holes. They dug about 3,800 holes out there. And so not all of their comments, you know, surfaced in terms of their logs. So these all are pretty shallow. They're four foot holes. And some of the comments were just below the surface like a foot or something like that.

And we think the green dye is actually a fluorescent dye that was used by the Navy for either -- for a material that they used with their life jackets so that if someone was in the water that the dye would make it easier for the rescue folks to spot them. Or in some cases they used dye to -- with spotting charges on practice rounds so that they, when they fired them in the water, they could see where they're landing in the water, this dye would be released into the water. So we're working with our laboratory to try to identify what those compounds are. We think that they'll be just a non-toxic type organic molecule, but we need to have them run the analysis and determine if they can match it up with one of the compounds in their library of chemical compounds.

MR. QUIGLEY: I just want to thank you for getting the trail, the erosion taken care of. As a person who walks it every day, I appreciate it, and getting it reopened. Thank you very much.

MR. GEMAR: You're welcome, Wendell.

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

CO-CHAIR LEAR: Regulatory update.

MS. NAITO: Let's see, I'd like to thank everybody for giving me the two and a half feet of new documents that are currently taking up floor space in my already over-crowded cubicle, I'm so looking forward to reviewing all of that. We conducted a site visit, and I'd like to thank Dwight for not making me walk the entire trail. We wanted to make sure that the repairs had been done before the Flyway Festival. And as you've probably read in this and in the Navy update, we've

been plugging away at reviewing all the documents that have come in and issuing comments or approval letters on them.

MS. WELLS: Well, I would like to thank all the parties and Janet because I have no idea what reports come in, and I call her and ask her which ones I'm supposed to review, even though the Navy and Lennar give me tables and tables and red boxes of when things are due, and I can't keep them all straight.

But some of the things that the Water Board did do, we issued a closure for Underground Storage Tank 693. And we've got the closure for Underground Storage Tanks 742 and 102 in process. We provided comments on a report for Underground Storage Tank Site 231.

We closed somewhere -- we closed a bunch of the fuel oil pipeline sites. I know there's another one that's in process right now D.14, B.290, and W or something like that. And --

CO-CHAIR HAYES: Sounds good.

MS. WELLS: I know. And --

MR. COFFEY: Love the detail work.

MR. QUIGLEY: It's those brownies.

MS. WELLS: Yeah, so we're just plugging away. And I would just like to suggest that we figure out who's going to bring snacks to the next RAB meeting, because I think it's quite nice that we get to have dessert.

CO-CHAIR LEAR: I think Wendell raised his hand.

MR. COFFEY: Yes.

CO-CHAIR HAYES: We'll help him raise his hand.

MR. QUIGLEY: Oh, the puppy treats I'll bring.

VI. CO-CHAIR REPORTS

CO-CHAIR LEAR: Okay. The Navy report. Well, we've been speaking a lot about the Flyway Festival, and this was the first year that I got to attend, and it was a beautiful day and we really enjoyed being up here. We had a lot of people stop by the booth and a lot of interest in the RAB and the environmental program, so that was really nice. Glen from the caretaker's site office helped escort the hikes, so that was appreciated as well. They have really helped out a lot. They don't ever come to the RAB, so not everyone knows them, but the caretaker's site office is really good at supporting us up here on Mare Island.

So we also did work at IR-17. We have been doing groundwater monitoring up there as a followup to the removal action. So I think they were out there today, yesterday and today sampling wells. Although it may have been a little wet, so maybe not, maybe they'll finish up next week. So then we have a couple more quarters of monitoring out there, and then we'll evaluate how things look, and results will be recorded at the end of that time.

We've also been continuing on the decon work for the eight buildings in the PMA. We finished removal of the asbestos in Building A-248. The demolition of A-216 is pretty much complete. And I think last time we reported on the drain line that had some explosive residue, and that residue is still being stored in A-180.

CO-CHAIR LEAR: So we've got thirteen truckloads of asbestos that's been removed, and over thirty trucks of metal and over fifty trucks of concrete. At the end of that project those buildings will be certified free of explosive residue. And it's expected to continue into next month.

CO-CHAIR HAYES: I wanted to tell you two things or comment on two things on that building decontamination. One is that if there was anybody planning to be out in that neighborhood the 28th through -- which is Monday?

CO-CHAIR LEAR: Yeah, the 28th is Monday.

CO-CHAIR HAYES: Through Wednesday, I think, the team has, at least the last notification I got was that -- that there's a safety arc on that property for those three days. So don't plan to go out there unless you're with Island Energy or something like that.

MS. PAULY: And it's from about seven to three.

CO-CHAIR HAYES: Seven to five or seven to four, something like that. And then the other thing is that I noticed that they are grinding up the concrete and dumping it where the frogs were croaking away. And it was like, of all the property area that they could have ground concrete on and maybe put it on asphalt, it was sort of disappointing to see that this big wetland that had formed full of croaking frogs is now kind of mooshed.

MR. QUIGLEY: Freaked out.

CO-CHAIR HAYES: They croaked, I think.

MR. COFFEY: The frogs have croaked.

CO-CHAIR HAYES: But are they going to be taking the concrete away, do you know? It says 52 truckloads but, you know, the ground-up concrete, is it going to be actually disposed of off-site or given away or sold or whatever, do you know?

CO-CHAIR LEAR: The concrete that had a little bit of explosive residue on it, although it's not at hazardous levels, we're asking them to go ahead and dispose of it just for appearances sake if nothing else. But the other concrete is being used on the site for access to the buildings and for drainage control. That is an industrial area and that's for industrial reuse. So that's what it's being used for, at the PMA.

CO-CHAIR HAYES: Not the conditions we were told it was going to be like.

CO-CHAIR LEAR: Okay. Well, to my knowledge it's an industrial area planned for industrial reuse, and in the interim we will be taking care of the maintenance in that area, and we need to be able to access the buildings and to take care of fire breaks and --

CO-CHAIR HAYES: You already have.

CO-CHAIR LEAR: So then in addition to that, we submitted five documents during this reporting period, and we received comments or concurrence from the DTSC on four documents, and comments or concurrence from the Water Board on two. We do hold the regular BCT meetings, and the next one will be on Thursday, March 24th. And also as a reminder, we did move the next RAB meeting to March 24th. And that's it for me. Do you have anymore comments?

CO-CHAIR HAYES: I do. I want to give anybody who is interested in a document prepared by and distributed by the California State Lands Commission a copy of their document called, "The

Public Trust, Your Rights to Enjoy California's Waterways." The topic came up at the last Restoration Advisory Board meeting regarding what types of recreational use could be used, developed on public trust lands. And I just want to note there's a synopsis of some of the major landmark court decisions regarding public trust properties. And I could refer you to -- I know this is terribly technical, but that's why you're on the Restoration Advisory Board; right? In the middle of the list is something called "Restrictions on Use of Public Trust Assets for Local Benefit," and that is Mallon versus Long Beach, that's a 1955 ruling, and that is the ruling that you'll want to look at in terms of what types of recreational activities are appropriate on public trust lands. So I just went ahead and ordered some of these for folks who are interested in those lands. Since around 3,500 acres of Mare Island's approximately 5,600 acres will ultimately be granted land from the State of California to the City of Vallejo with these restrictions, if you will, or encumberments on them. So it would be good for you to kind of have an idea of what that involves. And Gil and I are both probably local experts on the topic; right, Gil?

MR. HOLLINGSWORTH: (Shrugged shoulders.)

CO-CHAIR HAYES: Could you hand me that newspaper article?

MS. NAITO: Oh, you're going to need longer arms.

CO-CHAIR HAYES: You'd be surprised. Well, I'm not going to read you this whole letter to the editor, but I just thought it would be fun for you, if you didn't already get a chance to look at it, to maybe read the last paragraph into the record because basically this woman from American Canyon is taking umbrage, I guess, with all of the bad news that Vallejo has gotten. And I really appreciate her kind of linking the Flyway Festival to some good news. And she says, "We have -- a few days ago in the news was the announcement that Vallejo was less than, less than another place, less than another city, and so on. As we all saw at the Flyway Festival, Vallejo was more than all the wonderfulness together in peace and harmony. We have to remember all who put this wonderful exhibit together, all the hiking people, all the bird watchers and finders, and all the exhibit people, and all the picture hangers, teachers, tellers, and all the food bringers, everyone together showing that Vallejo was the most and the best and the beautiful. Flyway, Flyway, Flyway home to beautiful, wonderful Vallejo, California." So just for the record, I think sometimes we don't really appreciate the effort that we are making, that the environmental remediation team's contractors, like she said, the food bringers, the bird watchers, the bird finders, it is all of us working together to make sure that Mare Island is a place that is safe for public enjoyment or commerce, for all the things that the City of Vallejo has planned for the island.

And I was once asked by a reporter when would my job be over, did I believe, at the Restoration Advisory Board? And I said when all the locked gates are no longer locked that are locked because of environmental contamination, environmental concerns. So the Flyway Festival was a real triumph in that we had more open areas than ever before open to the public for public use during that weekend because we'd done the environmental cleanup that makes reuse possible.

MS. TYGIELSKI: How many years have we been doing this RAB?

MR. QUIGLEY: Sixteen; right?

CO-CHAIR HAYES: I think it will be seventeen in April.

MR. QUIGLEY: Seventeen.

MS. NAITO: Hey, you can drive without parental supervision now.

MR. COFFEY: Now you can call it your own baby, pretty soon it will be legal.

CO-CHAIR HAYES: I think maybe we'll stick with just learner's permits on Mare Island. I'm not going to get into the insurance of the 16-year-old driving.

CO-CHAIR LEAR: Okay. Thanks everybody for coming. And see you March 24th.

(Thereupon the foregoing was concluded at 8:50 p.m.)

LIST OF HANDOUTS:

- Presentation Handout – Update on the Removal Action at Building 742
- Presentation Handout – Implementation of Remedial Actions: Historic Independence Wharf Area, Investigation Area C3
- Presentation Handout – Features within the Eastern Early Transfer Parcel (EETP) – CH2M Hill/ Lennar Mare Island
- Presentation Handout – Mare Island RAB Update February 24, 2011 – Weston Solutions
- Navy Monthly Progress Report Former Mare Island Naval Shipyard February 24, 2011