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

HELD THURSDAY, SEPTEMBER 24, 2009

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, September 24th, at the Mare Island Conference Center, 375 G St., Vallejo, California. The meeting started at 7:05 p.m. and adjourned at 8:51 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)
- Wendell Quigley
- Chris Rasmussen

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

- Michael Bloom (Navy Co-Chair)
- Jackie Dunn (Navy)
- Heather Wochnick (Navy)
- Jeff Morris (Remedy Engineering)
- Steve Farley (CH2M Hill)
- Cris Jespersen (Weston)
- Dwight Gemar (Weston)
- Gil Hollingsworth (City of Vallejo)
- Paisha Jorgenson (Water Board)
- Carolyn D'Almeida (USEPA)
- Janet Naito (DTSC)
- Sheila Roebuck (Lennar)
- Neal Siler (Lennar)

Community Guests in attendance:

- Diji Christian
- Kim Kulish
- H.A Monteau
- Patricia Monteau
- Susan Nichols
- Joseph Railla
- Bill Stephens
- Marilyn Wong

RAB Support from CDM:

- Carolyn Moore (CDM)
- Doris Bailey (Stenographer)
- Wally Neville (audio visual support)

I. WELCOME AND INTRODUCTIONS

CO-CHAIR BLOOM: Okay, everybody, we will go ahead and get started. Welcome to the September, 2009 Mare Island RAB meeting. I would like to announce first we do not have microphones tonight, so we will all speak loud or as loud as we can. We apologize, we did set them up but there was a --

MR. NEVILLE: Malfunction.

CO-CHAIR BLOOM: Yeah, a malfunction of some sort. So they are not working, but they will be fixed for our next one. So anyways, I'm Michael Bloom. I'm the BRAC Environmental Coordinator and Navy Co-Chair. And we'll go ahead with introductions.

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

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

MR. JESPERSEN: Cris Jespersen, Weston Solutions.

MR. HOLLINGSWORTH: I'm Gil Hollingsworth, I represent the City of Vallejo.

MR. KULISH: I'm a resident, Kim Kulish.

MS. NICHOLS: Susan Nichols, I'm a resident.

MR. GEMAR: Dwight Gemar, Mare Island. Seem like a resident because I'm here all the time, I live in a trailer.

MR. SILER: Neal Siler, Lennar Mare Island.

MS. NAITO: Janet Naito, DTSC.

MR. JORGENSEN: Paisha Jorgensen, Water Board.

MR. RASMUSSEN: My name is Chris Rasmussen, I'm a Mare Island resident.

MS. CHRISTIAN: Diji Christian, tour guide.

MS. DUNN: Jackie Dunn with the Navy BRAC PMO office.

MR. MORRIS: I'm Jeff Morris with Remedy Engineering.

MS. WOCHNIK: I'm Heather Wochnik with BRAC PMO, I'm the lead RPM.

MS. ROEBUCK: Sheila Roebuck, Lennar Mare Island.

MS. MOORE: Carolyn Moore, CDM.

MR. QUIGLEY: Wendell Quigley, RAB member and Mare Island person.

MR. FARLEY: Steve Farley with CH2M Hill.

CO-CHAIR BLOOM: All right. Thank you, everyone. We'll go ahead and get started with our first presentation. It is going to be -- the topic is the Marine Corps Firing Range Remedial Investigation/ Feasibility Study. It's an update on the document that's been sent out as draft. It will be presented and given by Jackie Dunn with the Navy, and Jeff Morris from Remedy Engineering.

II. NAVY PRESENTATION: *Marine Corps Firing Range Remedial Investigation/ Feasibility Study (RI/FS) Update*

Presentation by Ms. Jackie Dunn, Navy
Mr. Jeff Morris, Remedy Engineering

MS. DUNN: So since we don't have a mike, if for some reason you can't hear either one of us at any point in the presentation, just kind of say something and we'll talk a little bit louder here. I am Jackie Dunn, I'm with the Navy BRAC PMO West office. The contractor with me is Jeff Morris from Remedy Engineering. We're here to talk to you about the Marine Corps Firing Range, give you a little bit of an update on where we are with the cleanup of the site. We are in the Remedial Investigation/ Feasibility Study stage. We have had comments from DTSC working through those and are working to finalize the document. Kind of a little bit of where I'm going with this presentation.

Some of you guys know a lot about the firing range, you've seen presentations on it before, some of you guys may not know a thing about the site, so I'm going to give you a little bit of site history here. A little bit of history on previous investigations, previous removal actions. We'll go into the Conceptual Site Model, what are the chemicals, contaminants of concern, what are -- also as well as the MEC hazard assessment and what our receptor pathways are. We'll go into the Feasibility Study with the preferred alternative. And kind of give you an overview of what the upcoming deadlines are. So a little bit of background about this site. The main part of Mare Island, the firing range is located here on the western side of the site. There were three different portions of the firing range, including a rifle range, pistol ranges, and as well some historical outfall locations. We've had a lot of previous investigations that have incorporated looking at chemical contaminants as well as MEC contaminants within the site.

CO-CHAIR HAYES: Try not to use acronyms.

MS. DUNN: Oh, sorry. Chemical contaminants and Munitions and Explosives of Concern, contaminants at the site. We have done an ordnance preliminary assessment where we looked at the extent of MEC munitions contamination across Mare Island. That was done in 1995. We proceeded that with a -- or followed that up with a UXO site investigation, which is an Unexploded Ordnance site investigation in 1996. Basically it was a visual survey and a geophysical survey of this site as well as other ordnance sites around the island. Followed that with an intrusive investigation at different outfall locations across the island, including part of the outfall, Historical Outfall 4S.

There was a lot -- there was a large outfall mass, so we did a Time Critical Removal Action initially -- initial Time Critical Removal Action in 2004 to address some of the potential munitions in this outfall location. Because of the large mass we went into a larger Time Critical Removal Action where we found 1,200, I believe 1,291 anomalies after investigation. Only one of them turned out to actually have munitions related items in that, and we took care of that through the intrusive investigation. As well, we have characterized the site on the far eastern portion of the site through a investigation of the Infrastructure Development Area which is what we call that far eastern portion of the site. So basically the objectives of the RI and then the FS that follows -- the Remedial Investigation and the Feasibility Study that follows it is to summarize all the work that we have done out here through the Time Critical Removal Action, and what the current condition of the site is. Document these results. Describe the site

characteristics. Look at the ARARs, which are the Applicable and Relevant and Appropriate Regulations that apply to our site. Develop remedial alternatives. And come up with a preferred alternative. As well as support the selection of the final remedy of the site. And I'm going to turn it over to Jeff to talk to you about the data that we have. We have 1,100 data sample points. And go ahead.

MR. MORRIS: Thank you, Jackie. This slide here shows all of the soil sample locations from the site that have been collected over the years. A fifty foot by fifty foot grid was placed over the entire Marine Corps Firing Range area, and during the previous investigations the work was conducted on that grid. Basically every sample, every dot on the map here represents a location where soil samples were collected and analyzed for metals. You can see that the active parts of the firing range, this is the rifle range from the firing lines over here to the impact berms on this side, pretty good coverage across each of the active portions of the site.

In addition to every sample, every location being sampled and analyzed for metals, about 20 percent of the sample locations were also analyzed for organic constituents, volatile organic constituents and semi-volatile organic constituents. The legend over here will tell you where those organic samples were collected from. The different colors of the symbols just represent different phases of the work that were conducted during the previous investigations and removal actions that Jackie described. This portion here that's outlined in blue is the 4S Outfall Area. You'll notice kind of an absence of sample locations from there, and that's because these are the sample locations for chemical analysis. Activities that occurred in this area were primarily focused on removal of debris and munitions items. And those excavations continued.

If we look at the next slide, this actually shows the depth of excavations that were conducted at the site. The yellow and orange and red colors represent the deeper excavations, and the purple and blue are shallower. And in this area, the 4S Outfall Area, you can see that the excavations were a little bit deeper and, in fact, often went to the native bay mud material as they removed all of the debris and MEC, munitions items. So since the focus of those excavations were for that material, they weren't looking to collect samples for the metals analysis, so that's why they're absent from that area.

MS. DUNN: You do have, these figures are blown up for you in the very back of your packet, you have a few attachments, so if you're having difficulty reading the smaller figures, you do have a large blow-up.

CO-CHAIR HAYES: We definitely are, that's good to know.

MR. MORRIS: Yeah, I should have mentioned that. In the back there's an eight and a half by eleven of the last two slides that are a little bit more readable. Okay. Over 1,100 samples have been analyzed for what's been called the target metals, lead, copper and antimony. Those are the metals that were of primary concern during the previous investigations. 283 samples were analyzed for fourteen additional metals. Of those sample results, all metal concentrations were below or are below the ambient concentrations or the 2008 Residential Regional Screening Levels. A couple things to note; the maximum lead concentration at the site now is 247 milligrams per kilogram, and we have one arsenic concentration of 55 milligrams per kilogram, which exceeds both the ambient -- or the Regional Screening Level and the ambient value of 36 milligrams per kilogram.

For the organics data there were 210 samples collected and analyzed. Eight volatile organic compounds [VOCs] were detected, and each of those were below the screening levels. Nine semi-volatile organic compounds [SVOCs] were detected. And of those, two polychlorinated biphenyl compounds [PCBs] and five polycyclic aromatic hydrocarbon compounds [PAHs] exceed the screening levels.

For the groundwater there were twenty temporary monitoring wells installed throughout the site. Samples were analyzed from each of the wells for dissolved metals, nickel, selenium, arsenic, antimony, and cadmium were all detected above ambient concentrations from the groundwater samples. And 20 percent of the samples, or five of the wells were also analyzed for volatile organic compounds and semi-volatile organic compounds. There were two volatile organic compounds detected in one of the wells, but they were below -- the concentrations were below screening levels. And no semi-volatile organic compounds were detected in groundwater. What we did then is we took a look at the data that exceeded the screening levels and we did some further evaluation. And this slide describes kind of the process that we went through for the data evaluation.

We looked for every compound detected, every constituent detected. We looked at the maximum concentration and we compared it to risk based, human health based screening levels, both California Human Health Screening Levels, and the Region 9 U.S. EPA Regional Screening Levels. If the constituent was a metal constituent we also looked at the background or the ambient concentration for Mare Island and compared it to that. And any concentrations that were below those values we didn't evaluate any further, we considered those as not needing further evaluation. And we ended up with some remaining constituents, which I'll talk about specifically here in a minute. But after that initial screen what we did is we calculated a 95 percent Upper Confidence Limit on the mean, 95 UCL, and compared that value to the screening level. And the 95 UCL, or Upper Confidence Limit, is a statistical representation of the data. We have a pretty large dataset here, this is a standard way to evaluate the dataset and compare it to concentrations.

As a result of doing that, we basically ended up with five polycyclic aromatic hydrocarbon constituents that were identified as chemicals of potential concern that may need further evaluation. If you look at the second to last page in your handout is a table, it's called Table 5-6. These are the constituents over on the left side that exceeded some screening level and the ambient concentration. So we have lead. The next group there, benzo(a)anthracene down through Indeno(1,2,3-cd)pyrene, those are all the polycyclic aromatic hydrocarbons. We have the two PCB, or polychlorinated biphenyl contaminants. And the arsenic concentration. Those all exceeded the screening levels. So -- and you can see here, you know, how many times they exceeded the screening level, and what the actual screening levels are. But farther to the right of the table there is the 95 UCL or Upper Confidence Limit on the mean concentration that we calculated and compared that then to the screening level. And as a result of doing that, the only constituents that we end up needing to evaluate further are these polyaromatic hydrocarbons. See, I'm used to saying acronyms and it's hard to say words.

CO-CHAIR HAYES: Jeff.

MR. MORRIS: Yes.

CO-CHAIR HAYES: Before you get too far down the line, where did these products come from on the Marine Corps Firing Range? What's your history of how these are -- why these are occurring here?

MR. MORRIS: The polycyclic aromatic hydrocarbons?

CO-CHAIR HAYES: All of 'em.

MR. MORRIS: Any of 'em?

CO-CHAIR HAYES: Any of 'em.

MR. MORRIS: Well, the lead is a result of, you know, the activity at the firing range. The Polycyclic Aromatic Hydrocarbons there are a fairly common constituent in urbanized areas, and the -- I don't know if there were any specific activities at the site that would cause a release of these compounds, but they are fairly common in the environment. Likewise, the polychlorinated biphenyls, you know, I'm not sure exactly where those came from, could have been a storage of oil, application of oil for maybe vegetation control, that was a practice. I don't know that it was used at the Marine Corps Firing Range. But, you know, there's not too many detections. If you look on that table, these were only detected relatively infrequently, at least in terms of exceeding the screening levels. You have four for one of them, and eight in the other. So they weren't -- they're not a frequently detected contaminant like the lead used to be before the cleanup activities were done.

CO-CHAIR HAYES: So everybody's, you know, my yard has all these PAH's in it?

MR. MORRIS: It might. Don't know about your yard specifically, but I can say it's a fairly common contaminant.

MS. D'ALMEIDA: Do you barbecue a lot? If you barbecue, it has it.

CO-CHAIR HAYES: I don't barbecue at home.

MR. MORRIS: So to further evaluate these PAH's, polycyclic aromatic hydrocarbons, we looked at a pathway -- receptor pathway analysis. This is a Conceptual Site Model for the site.

CO-CHAIR HAYES: Do you have a large scale of that in this packet somewhere?

MR. MORRIS: No.

CO-CHAIR HAYES: Or is this it, this little miniaturized --

MR. MORRIS: That's it. That is it. I don't think there's a larger one.

CO-CHAIR HAYES: Did you have some devices we could use to look at this or --

MR. MORRIS: Well, can you see it up here?

CO-CHAIR HAYES: Well, we can't make notes off of it.

MR. MORRIS: Okay. No, this is as good as I have.

CO-CHAIR HAYES: Oh, okay.

MR. MORRIS: On the left side we have the primary sources associated with the firing range and debris from the outfall areas. And then these boxes moving across here are the release mechanisms and the source, secondary sources. And what you end up with over here are the impacted media. Surface soil and subsurface soil are the impacted media at the site.

Groundwater is impacted. We have some contamination there. However, it's not of sufficient quality to use for domestic purposes and so some of the pathways are incomplete, and I'll talk about that in a second. The surface water is, is not considered a significant pathway, there's no permanent surface water bodies at the site. The surface water runoff is not considered significant. There's no evidence that there's an impact associated with surface water.

Over here on the left side are the different receptors that have been identified for the site, and those are based on the potential future uses of residential and recreational use. Those are the planned uses for the site. And so we've got a future adult child recreationalist, recreational user, future adult child resident, and a future construction worker as the potential receptors at the site.

And these are the different pathways; ingestion, ingestion, absorption, or inhalation. And as I mentioned for surface soil, all three receptors, it's a complete pathway to surface soil. For subsurface soil the only complete pathway is to a construction worker. Surface soil is defined as zero to one feet. And future residents and recreational users are not likely to be exposed or have contact with subsurface soil, just a construction worker. And then in terms of groundwater, it's incomplete for the recreational and residential user. And then for the construction worker it is possible that during construction activities, installation of utilities or trenching, they could encounter groundwater; however, typically that would be a short-term exposure of a limited duration.

There are typically controls to keep the water from the trench during the construction activities. There's worker protection and equipment. And so exposure to contaminated groundwater in that -- under that scenario is considered insignificant for the purposes of the risk assessment. So for the pathways that we have and the contaminants that we have, we did additional evaluation of these polycyclic aromatic hydrocarbons. And one thing to point out is there has been a change in some of the toxicity criteria for those compounds since some of the earlier work was done. In 2004 the EPA residential PRG was 0.062 milligrams per kilogram. And that's at the time that most of the work was done. And in 2008 that was -- or prior to 2008 that was changed to 0.015 milligrams per kilogram, so it's a lower value. So what we did is we took the concentrations of those contaminants and we converted them to benzo(a)pyrene equivalents using the EPA recommended potency equivalent factors, which is a standard EPA methodology for calculating risk from these type of compounds. Benzo(a)pyrene is the most toxic from a carcinogenic standpoint. And the other PAH compounds are similarly acting, and they can be added together to calculate a risk. If you look at the last page of the handout is Table 5-9, and that shows each of the -- there's our five PAH compounds over on the left. The equivalency factor that is developed by EPA that we applied. So basically, as an example, if you take the first row there, Benzo(a)anthracene, the equivalency factor is 0.1, our exposure point concentration was calculated to be 0.052, and you multiply that by the equivalent factor to get a benzo(a)pyrene equivalent concentration, and that's the 0.005. And those are all added together. At the bottom you have a total of 0.107. And that's the total concentration and benzo(a)pyrene equivalents then that's used in the risk calculations for these constituents. And as a result of those risk calculations, these are the conclusions from the risk assessment.

The current Human Health Hazard Index, which is an indicator of non-cancer effects, is below one for all scenarios. And one, the significance of the value one is, less than one is not generally considered to need further evaluation, and so we're below one for all of our constituents. The estimated excess lifetime cancer risk for the future resident is 1.7 times ten to the minus six [1.7×10^{-6}], which is on the low end of the risk management range. That's used in EPA guidance,

risk assessment guidance and decision-making. And then the excess lifetime cancer risk for the other receptors, the recreational user and the construction worker are both below the ten to the minus six [$1x10^{-6}$] value. I'll turn it back to Jackie to talk about the MEC hazard assessment.

MS. DUNN: So the remedial investigation kind of looks at two parts; it looks at the chemicals; we also, being a former munitions -- finding former munitions there.

We've applied the EPA Munitions and Explosives of Concern Hazard Assessment Methodology, it's in interim status right now. Basically what this methodology does is it provides a relative numeric approach to quantifying the potential explosive risk at a former munitions site. The framework has multiple input factors that basically describe the characteristics of a munitions response site. And you assign weights and certain scores based on the type of munitions versus the future -- or along with the future intended use of the site, basically to assess the potential for an explosive hazard at the site in the future. The out category is a relative numeric score that corresponds to a MEC hazard assessment category, whether it's one through four, which I'll explain in a second. The hazard assessment is set up into three different functional components based on the severity of the type of hazard present, as well as the accessibility of the public to the site, and the sensitivity of whatever that potential item is.

Based on the calculation of the hazard, you end up with a numerical score putting you into a Hazard Level 1, 2, 3, or 4 scenario. And let me explain that for a second. A Hazard Level 1 score is a high score that indicates an extremely high potential for an explosive incident in the future based on the site conditions as well as potential contact with any items. Hazard Level 2 is a high potential for an explosive. Hazard Level 3 is a medium potential. And Hazard Level 4 is the lowest potential, a low potential for a future explosive incident at the site. Our post-TCRA we have removed munitions related items and RAD items down to the bay mud, down to four feet, down to eight feet in some cases as you've seen in the colored figure in the back of your packet. And we do not believe that there are any -- we don't believe that there's a potential for any other munitions left present there. We have indication that there's low potential for future explosive scenario at the site. Overall when it comes to chemical contaminants and munitions related contaminants, we feel that we have adequately characterized the site. Based on previous actions we have removed -- we have removed lead contaminated soil, we have removed MEC items, and we do not believe that further remedial action is required for chemical contaminants.

We also, to say again, we have calculated a Hazard Level score of 4, which is a low probability of a future explosion hazard at the site, explosive incident. So taking this information and moving onto the feasibility study. We have site specific remedial action objectives. Particularly our goal is to address that we are in a Hazard Level 4 scenario in terms of munitions. We feel that we have adequately removed the potential for any items there, but we would like -- we would like to focus on protecting human health and safety by preventing contact with MEC items, as well as restore the site to a condition compatible with the planned recreational uses in the area as well as the residential land use.

So we have actually looked at a more concise list of alternatives here. One is the standard no action alternative. No remedial action, no implementation of any sort of controls, which is a standard Alternative 1 in a feasibility study. The other alternative that we have evaluated is the implementation of institutional controls. Basically to prevent exposure in areas where there could be a potential unacceptable risk to human health and the environment at the site. Land use covenants basically incorporate these restrictions into enforceable restrictions enforceable by

DTSC. So in evaluating the alternatives for seven of the nine criteria, the last two being -- that we would add in after a proposed plan, the public input and regulatory acceptance. But in evaluating with the CERCLA with the seven criteria, looking at protection of human health and the environment, compliance with ARARs, effectiveness, reduction of toxicity, short-term --

CO-CHAIR HAYES: Maybe you could not use ARARs or explain what they are.

MS. DUNN: Okay. Will do. ARARs are the Applicable and Relevant and Appropriate laws, Regulations that apply to the site. So how do each of the alternatives compare to -- are they in alliance with the laws and regulations set forth that are identified through the remedial investigation process that we talked about earlier. It's done both with an analysis of federal laws and state laws, and in association with DTSC. And the main points here are the difference between Alternative 1 and Alternative 2, which Alternative 1 is the No Action, and Alternative 2 is the Land Use Control, comes in a couple of spots. It comes in overall protection of human health and the environment. What we believe is the effectiveness, as well as the cost. And the Land Use Control that we are talking about is a institutional control to prevent digging without notification. And we believe that that is the most protective of human health and the environment. We also believe that that has a lot more effectiveness than not doing anything or not saying anything in the areas of the outfalls. However, there is a cost associated with implementing a land use, an institutional control, but in order to -- for protection of human health and the environment; we feel that the implementation of a land use, of this type of Land Use Control in the outfall areas where we have found munitions is the most protective.

It is an overall higher level performance than Alternative 1, which is a No Action alternative, and provides greater protection for future uses for the recreational user within the areas of the former outfall locations. So kind of upcoming dates as to where we're going. We're working with the agencies to finalize the Remedial Investigation/ Feasibility Study Report in October of 2009, next month. We're working at preparing the Proposed Plan and RAP to give draft to the agencies in November. With a fact sheet coming out in December of 2009. The public comment period we expect to be in January of 2010. With the Record of Decision/ Final RAP coming out the spring of 2010. And the Record of Decision to document the institutional control or whatever the -- the institutional control is the preferred alternative, but to document whatever the agreed upon final alternative is.

MR. QUIGLEY: Yeah, so what I'm getting is they're going to -- is the firing range going to be open, all of it, or are they going to be closing specific areas of it that can't be used?

MS. DUNN: It will all be open. What's -- the proposed future land use here is both residential in certain areas as well as recreational open park space. And the current areas where there's excavations, there's plans for up to eight feet of soil layer to be imported and put on top of the current ground surface, so the only, the restriction is for digging. So that we did excavate to bay mud, we did excavate four feet, but the Land Use Control would be in the area of the outfall location where we found munitions in the past, but there's eight feet of soil on top of that. So it's just for digging notification if there is going to be deep digging in the future.

CO-CHAIR HAYES: Okay. Well, I have a few questions so I guess I'll get started. What -- going back to Jeff's presentation first on, I guess it's slide -- I can't really see it, I guess as we age you'll have to make these things different -- it's something like nine, I guess. I'm not clear what you meant. If you could repeat what you meant by residential -- my note is -- not to be expected, not to be exposed in the one to two foot. And was that groundwater or was that soil?

MR. MORRIS: That was soil and so --

CO-CHAIR HAYES: Why wouldn't a residential person go digging in one foot?

MR. MORRIS: From zero to one foot --

CO-CHAIR HAYES: Yeah.

MR. MORRIS: -- it is a complete pathway, they may encounter that. Deeper than that it's not a significant pathway.

CO-CHAIR HAYES: And the surface water, you said there was no impact of the site to residential and recreation.

MS. DUNN: We don't have a current surface water body on the site, and it's not considered the location of a surface water body, and so that is considered an incomplete pathway.

CO-CHAIR HAYES: Well, won't surface water occur once you put residential and you cover a bunch of the surface and you put parking lots and -- I don't get -- the surface water from the soil is what you're talking about?

MR. MORRIS: Surface water as a media and a pathway to receptors. So if you had a surface water body on site that had been impacted by side activities, had contamination in it, and then users were exposed to that or that migrated to a different media, a different area that would create a complete exposure pathway.

CO-CHAIR HAYES: So you're saying that none of the soil in the zero to one if it was, if there was run-off from it, and it got into a puddle, would be -- would create any kind of impact for any kind of receptor, drinking water out of that or splashing into the receptor's mouth or anything like that?

MR. MORRIS: That's right, that's considered insignificant pathway.

CO-CHAIR HAYES: Okay. Well, this, it was -- this new EPA guidance was interesting on munitions, I've not seen that. I mean, not that I sit around looking for stuff like that, but it's interesting, and I'd like to see a presentation sometime on it so that we're up to speed on what it, how you came to these numbers and how it's going to be applied in the future. For example, whether the Navy's going to be using that same interim guidance for the south shore and the PMA. And anyway, I think it would be a good topic for a training session for the Restoration Advisory Board members.

CO-CHAIR BLOOM: Got it.

CO-CHAIR HAYES: In this LUC, in this Land Use Control or institutional controls on the property for -- specifically the Historic Outfall 4S, will there be -- how is that, is this property going to be different than -- say -- the order that was required of the Navy and Weston, I guess, on the other outfalls from DTSC where I think they have to monitor for, on the levee edges for potential munitions like once a quarter or something like that. Is that going to be required on this? And if not, why not? And will the Land Use Control or institutional control include, besides no dig, will it also -- I can't read my own handwriting -- will it also include whatever else you usually have in that?

MR. JORGENSEN: Like inspection, you mean, or something like that?

MS. DUNN: Sorry, I probably rushed through this a little too much.

CO-CHAIR HAYES: Will the housing -- will you restrict the building of housing on the outfall area?

MS. DUNN: Right now we're just in the proposed preferred alternative stage, the actual --

CO-CHAIR HAYES: I know, that's why I'm asking you now.

MS. DUNN: So the actual details is something that will be in the Land Use Control Remedial Design which is part of our post-RAW documentation. But the proposed alternative is just for a Land Use Control for digging within the areas of the outfall locations.

MS. NAITO: I can answer part of the rest of it just because I've had so much fun going through all of the firing range documents.

CO-CHAIR HAYES: I'm glad you had that fun, I'll have it some other way.

MS. NAITO: Okay.

CO-CHAIR HAYES: I'll take your word for it.

MS. NAITO: When they went, they've done a lot of excavation and a lot of sampling in this particular area, so the one place where the -- there were two places where they found MEC, and that was in the two outfall locations. This isn't like some of the other dredge ponds where soil was moved around and spread around and so they have, it was pushed up against the levees. And so that's why they have to go out and continually inspect the levees. The information we have is there was a dredge outfall, it's flat, stuff got buried, there was a lot of material in those outfalls, but that it was then filled in afterwards, they didn't have a lot of movement around. I could have that wrong, but that was my understanding that I got from the various different reports that I've read. People can correct me if I'm wrong.

MR. HOLLINGSWORTH: You're right.

MS. NAITO: Okay. Not usually but --

MR. MORRIS: One thing I can add to address your question about the type of restrictions and whether or not they would be similar to the previous ones. When we -- the details of the restrictions will be worked out in the post-RI/FS phase. But when we met with DTSC back in January with Chip Gribble, he told us, "You need to go look at these other land use covenants, because that's what I suspect you're going to end up heading towards at this site." So there will -- I think there will be some continuity.

CO-CHAIR HAYES: Well I would hope there would be because, you know, regardless of what clever new device you use, the fact is that as far as I know you can't find every single munition no matter how great your contractor was, and I do have a lot of confidence in the contractor, in Weston's work. So I would just think that, especially since you're proposing residential and recreational on this property, that the Land Use Controls and similar kinds of uses or mechanisms for protection would go across the entire island, not willy nilly here and there be different. Because I think that makes it difficult for whoever you're intending to enforce this. What I'm curious about, and I always have been, is who's going to go around and check the backyards to make sure people aren't digging or that the -- are you going to have a metal -- anti-metal detector use in your loop? It doesn't say anything about any of this stuff so, of course, I have to ask.

MS. DUNN: In the area of the outfall locations, that's actually part of the proposed open space area.

CO-CHAIR HAYES: Oh, well, that would be helpful if we had a map that showed that. I'm not picking on you, I'm just, you know, we're early and often communication here.

MS. DUNN: Right. And so we'll have -- there will be almost eight feet of fill material that's on top of where that excavation occurred and where that area is.

MR. MORRIS: And there won't be residential use or residences in the area of the restrictions, that will be explicitly prohibited by the restriction.

CO-CHAIR HAYES: All right. That would be good to be in here for your future presentations. Do you have a map that shows -- an image that shows the proximity of this property to the Western Magazine in any of your materials here tonight?

MS. DUNN: I can point them out on the map. This is where the Marine Corps Firing Range is, right here. And this is the Western Magazine down here.

CO-CHAIR HAYES: Uh-huh. And the Western Magazine, I assume that the planning for all of the residential and the recreational in this area, including on the Marine Corps Firing Range, is expected to have all of its surface water run into the Western Magazine, all of its storm drains.

MS. ROEBUCK: It does run to the west to the Western Magazine.

CO-CHAIR HAYES: Well, I guess I'll express this concern again. And I think I've done it a few times over the past few years. What is the Navy planning to do to ensure, and your contractors and your future land users, to ensure that that endangered species habitat within the Western Magazine is not -- where the Navy has been ensuring that un-immuted tidal marsh comes in, and you have tidal flow of salt water into that property, that you won't have a significant fresh water or contaminant run-off surface water impact on the Western Magazine as you drain into that property, including from this site?

MS. ROEBUCK: I can answer that for you, I think.

CO-CHAIR HAYES: Could you come up here so I don't have to go like this, Sheila?

MS. ROEBUCK: Sure.

CO-CHAIR HAYES: I might stay like that, sort of like Lot's wife.

MS. ROEBUCK: In the Western Magazine a lot of the storm water is flowing to the Western Magazine ponds, that's the plan. And before we were allowed to have an easement from the Navy to allow that to occur -- that drainage to occur. We had to demonstrate that the way that the drainage would go in would not affect the salt marsh harvest mouse or the habitat associated with it. So we did a couple of things. We looked at the hydrology of the pond, and how much during various floods that pond level would come up, and how it would affect the habitat around it so it wouldn't get flooded. And in addition to that we had someone come out who was, I forget the exact term, but she's certified to look for, specifically, habitat associated with the salt marsh harvest mouse. She's a specialist in that. And she went through the area to make sure that those areas that -- where the water would come up or where the water would flow from drainage wouldn't affect the salt marsh harvest mouse habitat. And in addition to that, there is a requirement for treatment of the storm water before it goes in so that the water quality is such that it wouldn't -- it wouldn't have a deleterious effect either.

CO-CHAIR HAYES: Well, this is all news, and no presentation has indicated any of that to date. And it's been rather annoying me, and I don't think that you've yet addressed the salt water, the impact to the salt water, the amount of flow of fresh water that you're expecting to drive into that property by the amount of surface that you'll be covering with impermeable surface.

MS. ROEBUCK: We can give you a presentation, Myrna, about that, it's not -- I don't want to sort of steal their thunder, but we can certainly do that, and we have studied it.

CO-CHAIR HAYES: I'm not sure it's stealing their thunder, it's a Navy presentation tonight, and I feel that that is a direct nexus. If this property is going to, has contaminants on it, and they're going to flow onto that property, or potentially, then I think it's something I can bring up. I don't think it's irrelevant to this topic. Or if everybody else in the room disagrees, fine. But I think we're supposed to be able to ask any question about any topic here, so --

MS. ROEBUCK: Well --

CO-CHAIR HAYES: Sure, I'd like a presentation about it.

MS. ROEBUCK: Like I said, I'd be glad to give you a presentation, Myrna. I can't give you all the data right now because I wasn't prepared for that discussion tonight.

CO-CHAIR HAYES: I'd appreciate that.

MS. ROEBUCK: Okay. Those are all of my questions.

CO-CHAIR BLOOM: Any other questions?

MS. DUNN: Yes, ma'am?

MS. CHRISTIAN: I have quite a different question. What page are we on here?

MS. DUNN: Fourteen.

MS. CHRISTIAN: It's really a very simple question and probably has a very simple answer, and that's fine for me. The current Hazard Level score corresponds to a category 4 determination. Indicates the site has a low potential for an explosive incident. Then we drop down and it says, "Previous investigations and removal actions at the MCFR have resulted in site risks that are appropriate for the intended future uses." And the next statement deals with the explosive incident. Is that the only risk involved here? Is this the only thing we're looking for is whether or not it's explosive? Because that -- this statement confuses me, "Previous investigations, removal actions have resulted in site risks that are appropriate."I guess my question would be what site risks are appropriate for the intended future uses? I mean probably very obvious.

MS. DUNN: It's a good question. Through the remedial investigation we have looked at both chemicals, potential chemical contaminants as well as anything associated with potential explosive hazard based on what has historically happened at the site. And that through the risk assessment analysis we have gone through an evaluation of potential chemical contaminants based on previous sampling from our activities. And using EPA methodology, the risk assessment analysis we've resulted into what -- what's the word I'm looking for? -- our risk assessment concluded that based on -- our risk value is below what the --

MR. MORRIS: What would be required for further risk evaluation.

MS. DUNN: What would be required for further risk evaluation.

MS. CHRISTIAN: Can you just say a couple of things that would fall into this category, these things that are appropriate for the intended future? I mean I really don't know, and I just was really curious about that.

MR. MORRIS: Well --

MS. DUNN: Oh, the question is to this sentence right here, "Site risks that are appropriate for the intended future uses?"

MS. CHRISTIAN: What are some of those risks? They might be very important to me.

MR. MORRIS: Right. So that statement is intended to describe that the evaluation of the risk assessment that's been conducted supports that the concentrations that remain at the site of chemical constituents are okay for the planned uses. Now, there's two types of uses in two different parts of the site; residential in some parts, and recreational in others. So by, you know, what we're trying to say is that.

MS. CHRISTIAN: So it's chemical then? I think that's all I needed to differentiate.

MR. MORRIS: Yes.

MS. CHRISTIAN: Okay. Thank you.

CO-CHAIR BLOOM: Okay. Any other questions?

MR. RASMUSSEN: Yes, I do. I do. Do you have any idea how much material from the work that was done, what appears to be five or six years ago, that seems to be when the major excavation work on this site was done, how much material was removed out there? What was the extent of the excavation and the removal?

MS. DUNN: During 2003 and 2004, during the initial Time Critical Removal Action we removed and characterized approximately 13,000 cubic yards of impacted soil. And in the final TCRA in 2005 and 2006 excavated 12,600 cubic yards of impacted soil. And then also in that far eastern, in the Infrastructure Development Area, Lennar had also excavated 900 and -- approximately 940 cubic yards of lead impacted soil. So 27,000 cubic yards. Dwight, did I miss an amount there?

MR. GEMAR: That sounds pretty close.

MS. DUNN: Did that help you, Chris?

MR. RASMUSSEN: Yeah, thanks.

CO-CHAIR BLOOM: Okay. Thank you. We're going to go ahead and adjust the agenda just slightly. What we'll do is take our first public comment period, and then after that we'll go into our break. And then, Neal, after the break, if you don't mind, present after the break. Okay. So we will open for public comment. Is there anybody with public comment in the first public comment period?

(No response.)

CO-CHAIR BLOOM: No. Okay. We'll take our break.

(Thereupon there was a brief recess.)

CO-CHAIR BLOOM: We'll go ahead and get started with our second half. All right. Our next presentation will be given by Neal Siler with Lennar, and it is on Underground Storage Tank 693, a remedial activity update.

III. PRESENTATION: *Underground Storage Tank (UST) 693 Remedial Activity Update*
Presentation by Mr. Neal Siler, Lennar Mare Island

MR. SILER: And now for something completely different. Now, the only reason that I'm here tonight is because the person who was supposed to give this presentation, Dave Hodson, came up with a lame excuse as to why he couldn't be there. He tells me he's getting married tomorrow. And so I said, "Dave, you know, if you're going to set parameters, you better do it now because after tomorrow it's over." I said, "What are you, a man or a mouse? He said, "Eek, where's the cheese?" So that's why I'm here.

So, as Michael said, I'm going to talk about, give you an update of remedial activities at Underground Storage Tank 693. And how I'm going to do that, I'm going to give you some information about the background and the history of the site. I'm going to talk about the proposed plan that we put forth. I'm going to talk about the actual implementation of that program as it developed in the field. And then I'm going to talk about some additional work that we were going to have to do. And a schedule for the implementation of that additional work.

Now, to give you an idea where Underground Storage Tank 693 is located, it's located in Investigation Area C-1 which is in the northeast corner of the Lennar Mare Island property. It's located about 500 feet from Mare Island Strait which is off here to the east. You can see this circle here tells you where the site is. It was a fuel storage and distribution facility that was associated with submarine and repair and a fueling operation. The site really consisted of four underground storage tanks that were composed of concrete that were used to store diesel.

Now, the history of the site. These tanks were installed in 1942, and they were in operation until about 1994. In 1990 it was first noticed that there was a potential that these tanks were going to be leaking, and that came from a failed leak integrity test. After that time period the Navy did a number of investigations, and it was thought that the reason that they leaked was because these were concrete tanks, and at the roof of the tank and the sidewall it was not sealed with anything, and so when overfilling operations occurred it appeared that the fuel actually leaked out that joint right there. So in 1994 the Navy made the decision to go ahead and take all these tanks out of service. They removed the fuel out of them. And then in 1997 they demolished them in place and removed them at that time period.

Now, between 1997 and 2009 when we actually did this removal action, a number of investigations took place. I'm not going to go over them. Usually there are numerous investigations, there are too many to count. Janet and Paisha, they stay up, you know, days and nights, and they anticipate these documents, and they just love reading them, but I'm not going to go over all of them right now. But when we started looking at this we found that there were some very high levels of constituents of concern, mainly the diesel component in the fuel. There was about 16,000 milligrams per kilogram diesel in the soil. There's about 190,000 micrograms per liter of diesel in groundwater. And the depth to groundwater usually ranges from about six to eleven feet below ground surface, and it flows to the east toward Mare Island Strait.

Now, I mentioned to you I was going to talk about the proposed plan that we were going to put -- going to implement. And the first thing that we did was we did some potholing because we had some data gaps, so we wanted to see if there were some additional areas where we could either find contamination in place or get outside that footprint of the contamination that that potholing was to occur. Then we were going to excavate areas where we found the petroleum hydrocarbons in excess of the cleanup levels. And you can see right here the cleanup levels that we developed with the Water Board and the Department of Toxic Substances Control were under three feet in depth, 500 milligrams per kilogram. Greater than three feet in depth it's 5,000 milligrams per kilogram.

We proposed to excavate down to twelve feet below ground surface, which was the bottom of those concrete underground storage tanks. And then we were going to be collecting confirmation samples in the bottom of the excavation and in the sidewall of the entire excavation. And usually we take a sample about every 20 feet on a grid surface. So we put it on a grid surface and take samples on the grid in the bottom. And then usually in the sidewalls we take them, because we have those two different cleanup levels, you know, one above three feet and below three feet, we take a sample in that zero to three foot range, depth range, and then one below that three foot depth range. So what we actually did between June 15th and September 11th of 2009, we did the trenching, the excavation, and the backfill operations. We had to temporarily relocate a building that was located on the northwest portion of the area. And I'll show you pictures of that in a little bit so you can see what that looked like. But as we excavated we figured we were actually going to excavate about 10,000 cubic yards of material. We ended up excavating about 12,100 cubic yards of petroleum hydrocarbon impacted material. And we disposed of that material off-site at the Hay Road Landfill in Vacaville, California, which is a Class II landfill.

Now, the confirmation sampling or the previous exploratory sampling that we did, we collected about 225 soil samples, 60 of those were collected during the pothole where we delineated any data gap areas that we could find. And then as far as the confirmation samples, we collected about 165 confirmation samples, 65 in the base of the excavation, and about 100 in the sidewall samples. And except for two locations, which I'll show you on a map that comes up later on in the presentation, the base samples, the maximum concentration was about 965 milligrams per kilogram total petroleum hydrocarbons as diesel. And if you look at that data, I don't have it all here tonight because there's just so many samples it's hard to see on a map. But the next highest concentration was about 790 milligrams per kilogram, went down to about 179 after that. And the vast majority of those were about maybe 40 to 50 million grams per kilogram. A number of those were in single digits, two, five, nine, seven, that's what we were seeing at the base of the excavation.

Now, on the sidewalls, in the upper three feet the maximum concentration left was 346 milligrams per kilogram. Again, after that maximum concentration it dropped off quite significantly. Again, we had maybe a few that were over a hundred milligrams per kilogram, but the vast majority again were in the single digits. And then higher than that was the maximum concentration that was left in the depth range below three feet. And again you can see there the maximum concentration was about 4,290. We had a few that were in the 3,000 range. And again, they dropped off quite rapidly after that into a few hundred milligrams per kilogram at that point. And what we also did was that, because we're trying to recycle materials, we had a number of soil stockpiles on the site that we had developed during some construction activities

that we had. We did some additional testing of that material. We presented the results of those tests to the Water Board and to the Department of Toxic Substances Control. And they gave us permission to go ahead and reuse that material that we had stockpiled as backfill on the site. And if you ever go down by Nimitz -- not Nimitz, excuse me -- by Azuar Drive down by Building 637, very close to the corner of Kansas, that was Stockpile number 345, and we actually use that material to backfill this excavation and another one that we're doing immediately to the west, which is Installation Restoration Site 03.

So the next slides, next few slides just give you some pictures of what occurred. I mentioned to you that that Building 845 had to be relocated. That's considered to be a historic structure. It was thought to be a guardhouse, but it's actually an old pump station. So you can see it right there. So what we had to do to relocate it, we had to wrap it real tight, make sure that it was taken care of. And we actually only moved it maybe about a hundred feet. We actually moved it right over here as we expanded the excavation to the north in this direction right here, and to the west. The next slide gives you an idea of what the excavation looked like. It was in progress. And actually where that truck is situated, and where that excavator is, we actually excavated material off here to the east toward this building right here. So that was all gone by the time we had done that.

Again, that's that Building right here, 845. This shows you the backfilling operation right here. And now where that building was located, Building 845, this is where it was located right in that area right there. We're looking down at a different angle from where that building was located down into the backfilling operation. And then the last slide is what the site looks like today after it's been backfilled, and Building 845 is back where it was originally located.

Now, I mentioned to you that there were a couple places where we were not able to meet the cleanup criteria, and those were these two areas right here just right on this northern edge right here. And the reason we stopped is because we needed to get this hole backfilled, that's kind of dangerous to leave a hole open. And then the other fact is that we were coming up right along Nimitz Avenue right here, and so we had to kind of stop here and kind of reevaluate the situation. You can see we've left about 6,180 milligrams per kilogram diesel in place right here at the six foot depth.

There's about 15,100 [milligrams per kilogram] petroleum hydrocarbons as motor oil at this location right here. But what we're going to do is we're going to go back in and take some additional borings out into the street, and also to the west across there to see what the extent of that is, and to see if it's feasible for us to go ahead and excavate that material and to actually go through with a new plan as we go forward. Now, the one thing that we did do, because I mentioned to you we had some high levels of groundwater impacts as far as diesel in the groundwater. After we removed the material, the whole idea of this is we're beheading the plume, we're cutting off the head, removing the source material so the body withers and dies. So we're hoping after we do that -- that's exactly what we're doing.

We've reinstalled six monitoring wells, and we actually did that earlier this week. We're going to start quarterly groundwater monitoring of those wells starting next week. And those additional borings that were going to go to the west of those two areas that I showed you, we're going to start putting those in next week. We're probably going to have to do a traffic plan. We may do some borings in Nimitz Avenue -- do as close as we can here in Nimitz Avenue, and across Nimitz Avenue toward Building 599.

So that's the end of my presentation just to give you an update, give you an idea of what we proposed, what we've done, where we're going. If you have any questions, I'd like to answer them at this time.

CO-CHAIR HAYES: I have a couple of questions.

MR. SILER: Sure.

CO-CHAIR HAYES: Why would this site not have been suitable for an in situ remediation?

MR. SILER: It could be, but it would take a lot longer to do that type of a remedy. Because if we could do something --. Usually when you do that you have an active operation in place, they do it a lot at refineries or places where they actually have a -- something where they don't want to impact the ongoing operations. And here, because we had an open area, it was a lot easier for us to go ahead, remove this material, take care of it as fast as we can right now, get it closed up, and get it signed off.

CO-CHAIR HAYES: And in terms of the groundwater, your groundwater monitoring, do you have -- have you done any sampling of the monitoring wells that you've installed? Have you --

MR. SILER: No, we haven't done that yet because those wells only went in this week and -- so they've installed those wells, they've developed them, they want them to equilibrate, and then next week they'll go ahead and go back in and do the sampling.

CO-CHAIR HAYES: All right.

MR. QUIGLEY: Is this a housing area?

MR. SILER: No, this is an industrial area.

MR. JORGENSEN: Just south of here.

MR. SILER: It's just right to the south, right there at Building 461. It's near Building 461 to the south.

MR. QUIGLEY: Can I ask you a question that's just a little off?

MR. SILER: Why not, Wendell?

MR. QUIGLEY: Okay.

MR. SILER: I'm used to it.

MR. QUIGLEY: On the old jail, have they decided what they're going to do with those tanks?

MR. SILER: The old jail?

MR. QUIGLEY: Yeah, the old jail.

MR. SILER: You talking about Building 84, in that area?

MR. QUIGLEY: Yeah, the tanks below it.

MR. SILER: Right now we have a program in place that we're looking at to potentially do some additional sampling in that area and possibly be able to close those tanks in place. We don't have all of the -- of the, you know, final pieces in place for that program right now, but that is something that we're looking at right now.

MR. QUIGLEY: thank you. Thank you. Thank you.

MR. RAILLA: I just wanted to ask you the method of compacting. And you said the dirt is from Mare Island, and do you test it after the compaction, you know, what's the bearing value.

MR. SILER: I couldn't tell you what the bearing value is of that dirt right there. But what we do is we run a number of rollers over it, we get it up to a certain level. And then after that, when it gets up to a certain level, probably above five feet, and above that we actually do a lot of nuclear gauge density tests on it to make sure it's compacted. And usually in an area like this it would be a minimum of ninety percent relative compaction.

MR. RAILLA: Joe Railla, R-A-I-L-L-A.

MR. SILER: Anybody else have any questions? Well, thank you very much.

IV. ADMINISTRATIVE BUSINESS (Myrna Hayes and Michael Bloom)

CO-CHAIR BLOOM: Thank you, Neal. And we will go right into our administrative business and announcements. I would say if you have any comments on the meeting minutes from August, please get them to myself or Myrna. Any other announcements? With that, we'll move into our focus group reports. And first is community group which is Wendell.

V. FOCUS GROUP REPORTS

a) Community (Wendell Quigley)

MR. QUIGLEY: Well, actually I've asked a couple people here, I've asked about six of them and two have come, Sue and Kim. But I didn't get to go to the last big meeting, and she presented her report there, the Living Rivers Council, and I gave everybody here a copy of that. It's just everyone is real concerned, and I'm getting lots of phone calls, on H1 still to this day. And I've -- I thought that it was really going to be closed a year ago, that was my understanding. And then, of course, as things went on I knew that they were going to keep it open and put some more on. And now we're looking at, hopefully, November of this year, are we going to cap -- put a cap on this thing and be done with it?

MR. GEMAR: Yes.

MS. NAITO: Cross your fingers.

MR. GEMAR: There's no crossing fingers, it will get done.

MR. HOLLINGSWORTH: There are a number of things piling up that makes that date hard and fast. One of insurance, DTSC's requirements and things like that. So within reason, I mean if we get a flood here tomorrow, well, we have a problem. But within reason it's on schedule.

MR. QUIGLEY: All right.

CO-CHAIR BLOOM: Anything else, Wendell?

CO-CHAIR HAYES: I don't see anything in this, Wendell, about H1. It talks all about D1, so I don't know --

MR. QUIGLEY: Well, true, but --

CO-CHAIR HAYES: So I'm not quite sure how that relates.

MR. QUIGLEY: But this presentation, and there have been others, but my questions are mainly about H1 and when are they going to, you know, stop piling dirt there and put a lid on it.

b) Natural Resources (Jerry Karr)

CO-CHAIR BLOOM: Okay. Thank you, Wendell. The next is natural resources. Do we know how Jerry is? Have you heard?

CO-CHAIR HAYES: No.

c) Technical (Paula Tygielski)

CO-CHAIR BLOOM: Okay. We will move on to technical subcommittee, but Paula's not here. Gil, City report.

d) City Report (Gil Hollingsworth)

MR. HOLLINGSWORTH: Nothing to report.

e) Lennar Update (Steve Farley)

CO-CHAIR BLOOM: Steve, Lennar update.

MR. FARLEY: I have a handout. If you didn't get one, grab one up here before you leave. A couple things going on here. Let's start in the lower left corner with the documents in review, upcoming documents that -- those four categories. The new thing since the last handout under documents in review, the IA or Investigation Area C-3 BGM, or Black Granular Material, Remedial Design Work Plan is in review by the agencies. Under upcoming public comment periods there's a public comment period for the IR 15 FS/RAP which will occur sometime late Octoberish, the exact date isn't settled, but sometime in that timeframe. Under significant upcoming documents, the Draft for Public Review, IR-15 FS/RAP and the Draft Final IA-C2 RAP, are two new documents that have -- that are coming up since the last, our last RAB meeting.

Site closure status. There's one additional FOPL or Fuel Oil Pipeline segment that's been closed. Looking at the main body of the figure, there's a number of petroleum underground storage tanks listed here in the orange boxes. Those are either going through the closure process or long term groundwater monitoring is either started or will start soon.

In the lower portion of the figure, the IR-21 Building 386, 388, and 390 area, we're preparing the Final Feasibility Study/ Remedial Action Work Plan which will be in October. Field work is planned for January of 2010. And just to refresh everybody's memory, the public comment period on that, on those documents ended mid this month. In the IA-C3 Triangle Area, there's a Remedial Design Work Plan for that area that was recently submitted to the agencies. IR-15, which is just slightly northwest of the triangle, I mentioned a minute ago about the draft final -- or excuse me -- the Draft for Public Review FS/RAP. That went to Lennar for their review, it's going to the agencies soon. And the draft fact sheet and CEQA initial studies had been submitted to the agencies for that. So that site is moving along very nicely.

In the upper corner of the site, in IA-C1, the IR-720 area, there's a long-term monitoring plan that's in preparation that should be coming out soon. The purple area that's labeled as IA-B.2-1, that's a subset of IA-B that's proceeding along a separate pathway for getting closure. It's a relatively simple portion of IA-B, and so that site is proceeding along with an implementation report in preparation, we think that will be coming out in a couple of months.

Lastly, Neal mentioned the work that has been completed at UST or Underground Storage Tank 693. There's an adjoining site that's referred to as IR-03 or Installation Restoration Site 03, that's

an area where there's also been some excavation work done. These figures show examples of some of that work. That work is continuing. Much of the area -- most of the area has been backfilled, and we're just working on a few final things. There's also a series of ground monitoring wells that will be installed, we're working with the Water Board on the specifics there. And then lastly, to address an earlier comment about 693, there's been something on the order of about 10,000 tons, Chris, of material that has been hauled off from there. And that material also went out as Class II to the Hay Road Landfill. So if there's any questions, I'd be happy to take them.

CO-CHAIR BLOOM: Okay.

MR. FARLEY: Thank you, Michael.

CO-CHAIR BLOOM: Thanks, Steve. Next is Weston update, Cris.

f) Weston Update (Cris Jespersen)

MR. JESPERSEN: Thanks, Michael. We also have a handout. And at the top we've got the status of various documents. We have in the review cycle, I won't go through all those. Let me just start with the update on the Sanitary Sewage Treatment Plant [SSTP] outfall. And that is that we've developed a scope of work and prepared a pre-construction notification to start removal of three hot spots that have elevated concentrations of mercury out at the SSTP outfall or in the vicinity of the SSTP outfall. Right now we estimate the total volume of these hot spots is about 300 cubic yards. Not a real large volume, but those of you who have been in presentations earlier on this site may recall that the logistical challenges out there are considerable. To the west you've got a lot of very shallow tidally influenced mud flats, and to the east you've got pickleweed dominated tidal marsh. So it's a difficult area to get in and out of.

Ultimately the timing for the field work is going to depend on a review by the Corps of Engineers and some other agency stakeholders to permit the removal of the sediments under a nationwide permit, and also availability of our subcontractor to perform this work during periods where the tides are high enough to access the site. So right now we're shooting for a late November timeframe. The next up is an update on IR-05 soil excavation. And there was a revised new Explosive Safety Submission [ESS] for the Naval Ordnance Safety Security Agency's approval. They have approved that document, and now the ESS is being reviewed by the Explosives Safety Board for their approval.

We're thinking that will take place by the end of the September. And once we have those approvals, we've got about 15,000 cubic yards of soil above the ecological risk criteria of the site that are going to be excavated and consolidated within the remaining portion of the Area H1 cap. And again, this will be done after the area at IR-05 has been checked with magnetometers, and we remove any magnetic anomalies to make sure we're not taking into UXO items into the landfill.

Next up, the Containment Area cap installation schedule for Investigation Area H1. Right now we're scheduling the geosynthetic materials or the installation of the geosynthetic materials for the final area of the containment area to begin during the week of October 19th. And it's currently scheduled to take about five weeks once we get started. And right now we've got petroleum impacted soil from the Navy on the property just east of area H1 being incorporated as subgrade material prior to the installation and completion of the final cap. And then once the geosynthetic material has been installed, we will have a final clean, two foot soil area cover on

top of that material, the placement of the fill material at the H1 Containment Area. And then finally, for those of you on the island, I'm sure you've noticed a lot of truck traffic, a lot of activity going on during the months of June and July.

We had up to 30 trucks a day being used to haul 40,000 cubic yards of clean imported soil to the DRMO area and vicinity for use as backfill on Navy property, after we completed the excavation of petroleum contaminated soil there at the DRMO. Since then we've been using 40 ton offroad haul trucks to be used on adjacent Navy property from the DRMO and send it to the area H1 Containment Area. And to date we've moved 50,000 cubic yards of soil from Navy property, 15,000 yards of soil from some other adjacent properties. And these are both being done under a petroleum corrective action that was approved in August.

And then finally we've also moved an additional 10,000 cubic yards of material from the Navy's Parcel XVI, Paint Waste Area. Again, that's all going into the Investigation Area H1 Containment Area. That's it for September. Been a busy month. But if anybody has any questions, I'll be happy to answer them.

CO-CHAIR HAYES: What route have you been using for these vehicles?

MR. JESPERSEN: That's for Dwight since he's here on a day to day basis.

MR. GEMAR: The two DRMO sites we just haul parallel to Dump Road, so it's just, you know, west of Azuar. And the Paint Waste Area we actually have a sifting location where we take the material to run it through a mechanical sifter, and then we haul that to H1 so that actually goes even further west.

CO-CHAIR HAYES: So they aren't anywhere near the residential this summer so far?

MR. GEMAR: No. No. I mean, yeah, the DRMO and all that, they go straight west into the H1 area.

CO-CHAIR HAYES: That's a relief, I'm sure, for people living here in that area.

CO-CHAIR BLOOM: Okay. Thank you, Cris, Dwight. Regulatory update, Janet.

g) Regulatory Agency Update (Janet Naito, Paisha Jorgensen, Carolyn D'Almeida)

MS. NAITO: Nothing to report.

CO-CHAIR BLOOM: Carolyn.

MS. D'ALMEIDA: Let's see. I received ten PCB closure letters from the Navy for within the Production Manufacturing Area. Last Friday I went out with Izzat and Mel and we looked at those sites. And this week I've got letters out for all ten of those sites. I think most of them are -- were approved, some with comments, and then there were a few that still need some sampling data, and just asking to get the data and then resubmit.

CO-CHAIR BLOOM: Thank you. Paisha.

MR. JORGENSEN: The last two days have been field trip days. Yesterday I visited ten UST sites with the Navy, mainly on the south end of the island. And all of those the Navy has requested closure, so I asked to go see them before I granted closure. I think most of them we're going to be able to close no problem. Then today we visited the Paint Waste Area, excavation in the DRMO, and Crane Test Area petroleum excavations, which was quite interesting. There are

some big, big holes in the ground right now, a lot of debris being hauled out of there. One of my really good looks into the ground here at Mare Island.

And other than that, I've let the Navy know and Lennar know that as of October 30th I will no longer be at the Water Board, so I won't be attending anymore. So letting you all know. I don't know who my replacement will be yet. If they don't have one, most likely John will just be attending in my place, as he usually does. But he's taking his daughter back to college this week, so he's not here. So that's --

CO-CHAIR HAYES: So you'll be at one more RAB meeting?

MR. JORGENSEN: I'll be at October's RAB meeting, yes.

CO-CHAIR BLOOM: Since it's on the 29th.

MR. JORGENSEN: Yes.

MR. FARLEY: Paisha, you know, obviously we're sad to see you leave the program, but I think everybody here would really get a kick out of hearing what your plans are. So if you don't mind sharing?

MR. JORGENSEN: Sure. I'm going to become an accountant.

(LAUGHTER.)

MR. FARLEY: I didn't know he had a sense of humor.

MR. JORGENSEN: My wife and I are taking off to New Zealand and we're going to bike tour and travel for the next seven months at least, starting in New Zealand, maybe going to other places, we don't know. So we're taking off.

MR. QUIGLEY: Good for you.

MR. JORGENSEN: Thank you.

CO-CHAIR BLOOM: Thanks, Paisha.

MR. HOLLINGSWORTH: Probably more money in that than working for the state.

(LAUGHTER.)

CO-CHAIR HAYES: You've got all those furloughs anyways.

VI. CO-CHAIR REPORTS

CO-CHAIR BLOOM: Well, next is our report. Do you want me to go, do you want to go?

CO-CHAIR HAYES: Sure, you can.

CO-CHAIR BLOOM: Yeah, okay. I'll go first. We've had a lot of field work going on. You picked up the monthly progress report. The first one reported on is the DRMO or Defense Reutilization and Marketing Office. We began the work there mid-August, it is still going on. To date approximately 45,000 cubic yards of petroleum impacted soil have been removed, and that material is being placed into the H1 Containment Area as subgrade. We're still continuing that work. We still need to do the work on the petroleum impacted soil underneath and adjacent to Azuar Drive. A portion of Azuar Drive began to be closed I believe on -- was it Monday? -- on Monday to prepare for the removal. In addition, the other removal that we have going on is at

the Paint Waste Area, which everybody's heard about. We've been continuing that. In this report that's typed in here, as of September 14th, which was a little bit ago, there were 333 radiological items removed and twelve MEC items that were recovered. Since then -- I've received an update today -- there has been an additional, I don't know the exact amount, but an additional at least 300 to 350 radiological items since September 14th. And I believe four more MEC items? Dwight, correct me if I'm wrong.

MR. GEMAR: I think so.

CO-CHAIR BLOOM: Since September 14th. It does say here we are working six days a week to complete it before the rainy season. And we expect to end that by the end of October.

We also had some work going on back at IR-04 where we were sorting and removing some remaining debris, oversized debris that was there, left over from a removal action. The oversized debris is being recycled, and the large concrete blocks that were there are being crushed and disposed of off-site. We've had two public comment periods begin a few days ago, and we had a public meeting for Investigation Area A2 last night, and for Building 742 this evening. Investigation Area A2 is on the Proposed Plan Remedial Action Plan. And for Building 742 it was on the Draft Final Engineering Evaluation/ Cost Analysis.

The public comment period is through October 21st for both of those documents. And we had many, many documents that we submitted since the last RAB meeting, 19 of them. A lot of them PCB -- ten PCB reports Carolyn said, a few underground storage tank reports, and a bunch of CERCLA documentation that is on here. We did receive comments from DTSC on the Investigation Area Summary Report at the Mare Island Strait, and also on the Site Management Plan and from the EPA on some site cleanup plans. But there are more than what's listed on here as Wednesday we received more from Carolyn. And the Water Board submitted comments on one, two, three, four, five, six tank reports, on the Non-Time Critical Action Removal Action Work Plan for Site 17, as well as an Investigation Area A2 with the Petroleum Corrective Action Plan Completion Report. And actually comments on the Building 742 EE/CA that I didn't get typed on here before it went to print. Our next BCT meeting was held today, and our next RAB meeting is Thursday, October 29th.

For November we normally would have it the fourth Thursday of the month, obviously that's Thanksgiving, so we will shift that to the first Thursday in December which is December 3rd. Everybody make a note of that, we'll also have some time to remind folks on that. I'm also working on a RAB tour again, a fall RAB tour, most likely. I haven't come up with some firm dates yet, but I'll be working with Myrna and others on that, looking at most likely the second weekend in November, but we'll get that ironed out. And more to follow on that. Any questions? Gil.

MR. HOLLINGSWORTH: Just so I get my schedule straight. We're going to have a meeting October 29th. And then the next meeting will be December 3rd?

CO-CHAIR BLOOM: Yes, right.

MR. HOLLINGSWORTH: And then the next one will be at the end of January?

CO-CHAIR BLOOM: Yes.

CO-CHAIR HAYES: Right.

CO-CHAIR BLOOM: Okay. Myrna.

CO-CHAIR HAYES: I'll be quite quick. Our next second Saturday at the Mare Island Shoreline Heritage Preserve is October 10, and that will actually be our 19th second Saturday we've held since we started them in April of 2008. So you're welcome out 9:00 a.m. to 7:00 p.m. It's free. And we do that through an agreement with the City of Vallejo. And it's kind of an October theme with, you know, pumpkin carving and gourd painting for masks, and a flashlight cemetery tour in the evening. So come out. It's actually -- again, reminder that the reason we get to do that on that property is because the RAB did a good job, and the environmental cleanup team did a good job, and we were able to have that property transferred from the Navy to the City to the state to the City, and now to the public. So it does pay off to sit here and go through all these documents and, you know, you and Paisha and Janet particularly.

MS. NAITO: Carolyn, you like company?

CO-CHAIR HAYES: Since you got credited for -- sure -- for digging through all of them. And then the next day, October 11 is our third Lost Boats Memorial honoring the crews and the boats that were built here at Mare Island, seven that were lost at sea during World War II. And that's Sunday afternoon, October 11. Again, those activities are all free, and you can see me about the websites if you'd like, or just Google it.

MS. CHRISTIAN: The date on that, Myrna?

CO-CHAIR HAYES: October 11th.

MS. CHRISTIAN: October 11th, thanks.

CO-CHAIR HAYES: That would be the 66th --

MS. CHRISTIAN: No, I'm involved in that, I have to open the chapel for you.

CO-CHAIR HAYES: Okay. So that's it.

CO-CHAIR BLOOM: Thank you, Myrna.

CO-CHAIR HAYES: And I wanted to note that in our meeting last night about your RAB Investigation Area A2 that I did, I believe I requested that we have some topic on the RAB for, I don't remember what it was, but I think it had something to do with the dredge, well, ditches that might have, where dredge material might have flowed into before there was actually pipes or before there was actually dredge ponds on the -- I think mostly on the north end of the island, though maybe even that 4S Outfall was a result of that. I remember these photos at the National Archive where the dredge material was just flowing, free flowing off to the side of some houses, you know, a long time ago. So I just am concerned that since that Paint Waste Site was found, and something at 3E in the north part of the island, that maybe you should at least look at some maps or bring that back as a RAB topic to tell us about what that might look like on some old photos if you have them.

CO-CHAIR BLOOM: Got it down.

CO-CHAIR HAYES: Okay. All right. That's it.

CO-CHAIR BLOOM: Thank you. With that, we'll go into our second public comment period. Any public comment?

MS. CHRISTIAN: Yes, not comment, but this I received in the mail, and I'm trying to figure out why they said it was to be tonight here but nothing has happened, as far as I know, on the Remedial Action Plan of FS/RAP. Have we done it?

CO-CHAIR BLOOM: Yes, that was last night.

MS. CHRISTIAN: Was that last night? Supposed to be the 23rd.

CO-CHAIR HAYES: No, it was 6:00 o'clock.

MR. QUIGLEY: Today is the 24th.

MS. CHRISTIAN: Oh, today is the 24th? I'm sorry. Pardon me. I'm sorry. Okay. I missed it obviously.

CO-CHAIR BLOOM: Any other public comment?

MR. STEPHENS: I just returned from a three day meeting with the Navy and attended a conference that was co-hosted and attended by EPA, and there's a -- stemming from a lawsuit in New York City District, three of EPA and headquarters and head office of EPA are considering major alterations in PCB MINS thresholds. Has anyone here heard anything about that?

CO-CHAIR BLOOM: I have not heard that.

MR. STEPHENS: Well, the Navy NAVSEA is involved in this, and the Legacy Command was there as well.

CO-CHAIR BLOOM: Okay.

MR. STEPHENS: And it affects Navy historical assets, and so none of that, and I can give you the names if you want later, Mike, but none of that has filtered out here?

MS. D'ALMEIDA: Is this in respect to PCBs as a CERCLA contaminant, or in respect to TSCA? Because there hasn't been any movement that I'm aware of under the Toxic Substances Control Act.

MR. STEPHENS: You haven't heard anything?

MS. D'ALMEIDA: I haven't, so yeah, I'll give you my card and you can forward me what you have and I'll look into it.

MR. STEPHENS: Bill Stephens, S-T-E-P-H-E-N-S.

CO-CHAIR HAYES: Any other public comment?

MR. RASMUSSEN: I'd like to thank Cris and Weston for the information about the traffic out here this summer in regards to H1 particularly. Is this, what I'm about to say true, that when H1 is capped and closed by the end of this year, that all future excavated soil for Mare Island is going to go off island?

CO-CHAIR BLOOM: Yes.

CO-CHAIR HAYES: Uh-huh.

MR. RASMUSSEN: Somewhere?

CO-CHAIR BLOOM: That is a true statement.

MR. RASMUSSEN: Okay.

CO-CHAIR HAYES: If it's contaminated.

CO-CHAIR BLOOM: Well, yeah.

MR. RASMUSSEN: Well, if it's not contaminated, where might it go on Mare Island? Where will it be used?

CO-CHAIR HAYES: Like these backfills for --

MR. RASMUSSEN: But are we going to start seeing piles of dirt accumulate again in various places around the island? Some of it should have been removed recently.

CO-CHAIR HAYES: Well, you know, Neal used an example in tonight's presentation that it was clean material that they used to backfill a contaminated site, so I just clarified that just for the record.

MR. RASMUSSEN: Okay.

CO-CHAIR BLOOM: Any other public comment?

(No response.)

CO-CHAIR BLOOM: All right. We'll adjourn. Thank you everybody.

(Thereupon the foregoing was concluded at 8:51 p.m.)

LIST OF HANDOUTS:

- Presentation Handout – Marine Corps Firing Range, Remedial Investigation/ Feasibility Study (RI/FS) Update – Navy
- Presentation Handout – Underground Storage Tank (UST) Site 693 Remedial Activity Update – CH2MHill/ Lennar Mare Island
- Features within the EETP – CH2M Hill/ Lennar Mare Island
- Mare Island RAB Update September 2009 – Weston Solutions
- Navy Monthly Progress Report Former Mare Island Naval Shipyard September 2009

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February 3, 2010
DCN: CAPE-3218-0003-0001

Ms. Diane Silva
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San Diego, California 92132

Subject: Navy Contract No. N62473-07-D-3218, Task Order 0003, Community Relations and RAB Support for Former Mare Island Naval Shipyard, Vallejo, California
Final September 2009 Mare Island RAB Meeting Minutes

Dear Ms. Silva:

Enclosed are two hard copies (one bound and one unbound) of the Final September 2009 Mare Island Naval Shipyard Restoration Advisory Board (RAB) Meeting Minutes for inclusion in the Administrative Record. Also enclosed are two CDs containing the native file of the document and one complete PDF copy.

If you have any questions or require additional information, please call Shelley Samaritoni or me at (858) 268-3383.

Sincerely,

Larry Davidson

Larry Davidson, P.E.
Program Manager
CDM Federal Programs Corporation

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N. Meilahn, CAPE (w/o)
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S. Samaritoni (w/o)
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