MARE ISLAND NAVAL SHIPYARD
RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES
HELD THURSDAY, NOVEMBER 30, 2006

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, November 30, 2006, at the Mare Island Conference Center, 375 G Street, Mare Island, Vallejo, California. The meeting started at 7:06 p.m. and adjourned at 9:04 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)
- Michael Coffey
- Wendell Quigley
- Paula Tygielski
- Kenn Browne

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

- Michael Bloom (Navy Co-Chair)
- David Godsey (Navy Lead RPM)
- David Clark (Navy)
- Patricia McFadden (Navy)
- Carolyn D'Almeida (USEPA)
- Mike Murray (ECC)
- Jeff Sabel (ECC)
- Dwight Gemar (Weston)
- Chip Gribble (DTSC)
- Brian Thompson (RWQCB)
- Cris Jesperson (Weston)
- Steve Farley (CH2MHill/Lennar)
- Neal Siler (Lennar)
- John Kaiser (RWQCB)
- Carolyn Hunter (Tetra Tech)

Community Guests in attendance:

- Bob Bancroft
- Diana Krevsky
- Jim Davies
- Diji Christian
- James Porterfield

RAB Support from CDM:

- David Lange (CDM)
- Doris M. Bailey (Stenographer)
- Wally Neville (audio visual support)

I. WELCOME AND INTRODUCTIONS

CO-CHAIR BLOOM: Hello everybody, welcome. If everybody would take their seats we'll get this show on the road. Welcome everybody to the November Mare Island RAB meeting. We'll start with the introductions. I'm Michael Bloom. I'm the BRAC Environmental Coordinator for the Navy.

Attendees introduce themselves as requested.

CO-CHAIR BLOOM: Thank you. We'll get started with our first presentation. It is going to be given by Mr. Mike Murray with Environmental Chemical Corporation (ECC), and Patricia

McFadden with the Navy. And it's on the offshore munitions and explosives of concern (MEC), and a remedial investigation update. We have a little different title up there, so we'll let you explain.

II. NAVY PRESENTATION: *Summary of Offshore Munitions and Explosives of Concern (MEC) Work/Remedial Investigation Update*
Presentation by Mr. Mike Murray, Environmental Chemical Corporation & Ms. Patricia McFadden, Navy.

MR. MURRAY: Good evening. I'm senior project manager for Environmental Chemical Corporation, substituting for John Bowles who's normally with you. I'm normally in the field, as well as Jeff Sabel who's with me today. We've met—we've entertained many of you at our site, and it's nice to be with you again this evening. I intend to present this evening the preliminary results of our offshore investigations, primarily from the shoreline out into the mud. The presentation outline, we're going to discuss the investigation, the results, the sedimentation and MEC mobility study that we did, the—some conclusions, recommendations, and some milestone dates on when you can expect to see the reports—the final reports come out—the draft final reports.

The Remedial Investigation (RI) was in two phases. Phase one was a geophysical survey that was conducted in 2002 and 2003 to detect the position of anomalies on the surface and in the shallow sediment. Phase two was a follow-on investigation in 2006 of selected anomalies that were detected during the phase one to determine the presence, density, and distribution of MEC in the offshore areas. The goal of the survey—the geophysical survey was from the—the geophysical survey from the shoreline out to ten feet of water. We had two types of sensors that we used. One was a land based sensor; the other was a marine based sensor. The land based sensor was a single sensor pulled by an operator. The marine sensor was a three sensor array that was towed behind the boat. The land based sensor covered the shoreline and mud flat. The marine sensor covered the area of our responsibility that's normally covered with water out to ten feet. The marine sensor was damaged after about 74 percent complete behind the—along the PMA, so the results that—or the data that we used for the investigation was the land sensor data only. The land sensor data represented the most accessible sites and areas. Plus we're limited to a time window on when the mud flats are available during the summertime, so we wouldn't have been able to investigate all the anomalies for both of the datasets. The land sensor detected 6,064 anomalies in three categories. We took a percentage of the categories from 20 to 40 millimeter, from 40 millimeter and larger. And then on the large mass anomalies, which was what we were looking for there, was potential mass burial sites, and we investigated every one of those. And that represents the total number of sites in the PMA and the south shore area. This is the land sensor where it covered. You can see the PMA starting at berth 24 and working south, and then the south shore area. The lines you see that come out from the shoreline are the transections. You'll see it in a little better picture in a minute. The sampling approach was a collaboration between the Navy and DTSC; it combined some random sampling along the shorelines. Transected sampling was performed to determine the density and distribution of MEC from the shoreline out into the mud flats. The large anomaly sampling was intended to look for burial pits. And expanded sampling which is, if you did find the MEC in an excavation hole, we expanded it to determine if it was just a lone item, or if it was potentially part of multiple items that were buried.

The investigation method is as follows. We used digital GPS to reacquire the target, and then the investigation teams searched the one meter radius to four feet around the pin flag. The anomalies were identified. It could have been scrap metal, it could have been ordnance. If it was MEC or MD which we call munitions debris—that's ordnance related material that's explosive free—those items are tracked on a tracking log from cradle to grave. If we did find them, we did a five foot step-out to make sure that that was the only item in the area or if there were others. We had an independent quality control that wasn't part of our production teams that investigated one hundred percent of all of our anomalies, because we were afraid that if we excavated the hole and then went back a day or two later, that the dredge—that the spoils would have been pushed back into the hole by the tides. We couldn't tell if the hole was a hundred percent clear. On the shoreline in the marsh areas, we filled in the excavations on the mud flats. We let the water do it, the incoming tide do it so we can maximize our investigation in mud. And we investigated 1,897 of the 6,064 anomalies with the land sensor data collectively, which represents approximately 31 percent. This is an area near dike twelve where we actually found a number of items—I'll go through it in a little more detail later. But you can see, the thing I want to point out here is the water is up to their mid-calf. They're well off the beach area, up onto the beach area from the mud flat. It was very difficult. We found about 23 small MEC items. So you can see the gentleman over here using the screen to actually screen through it looking for small arms and small fuses and primers that were present. This is in the PMA area along the Mare Island Strait. This is just to give you an example of what it's like out there in the mud. These people were already just about up to their calves in mud, and they were wearing mudders, which are like snow shoes for people that walk in the mud. And they—just to investigate that area alone they were constantly up to about their mid-calf in mud. We began our sampling in IR-04. IR-04 starts just south of berth 24 and comes over south—just north of what we call the PMA north. We investigated 354 targets in this area, including that one transect that you see here that runs straight out. And we didn't find any MEC, and we didn't find any MPPH or munitions debris. This area was solely utilized for sandblasting of ships and ship related parts and there's—it's always been combined as part of the PMA because it's physically located within the gates. But it didn't have any MEC related things there. Up to the left—this is a quick view of IR-04. Up to the left you can see the cranes on berth 24. You can see the hard packed area, it's almost like asphalt. In the picture on the right you can see what's called the abrasive blast material or the green sand that was used for sandblasting. The residue was pushed out of that cove up until 1950 and forms a crust area, a crusted area. In this you can see our guys out here on the encrusted area working. We physically had to pick through the encrusted area to be able to get down into the mud. The next area is what we call PMA north. It, again, runs along the Mare Island Strait from just south of building 223 down to building A159. We had 796 targets in this area, and that's the distribution with the transect. Again, we found no MEC in this area. We did find five munitions debris items which were expended primers. If you look here where it says Hotchkiss one pounder 1994, there was one emergency action in 1994 that recovered a live MEC item there. And the squares that you see off the transect eleven there up on the shoreline, which is the onshore area, those were some previous onshore investigation results. But there was no MEC found except for that one item on two investigations; one on-shore investigation did that in the late nineties, and we did it in 2006. This shows you the PMA on the side of building 223. You look out over the marsh and the wetland area; you can see some guy working in the marsh and the wetland area working on an excavation hole. This is the transition area on the bottom left that goes from the wetland marsh area down to the mud flat, that's being eroded by the ferry traffic that rips large pieces of land mass off. In the three or four years that we've been

involved we've noticed about four or five feet of shoreline, in some cases, that's been eroded away. And then to the far right is the transition down to the mud flat in the PMA.

This is PMA south which extends from building 159 to building A15. Here we bias the transect somewhat along the seawall, as you can see. And then the transects that you see go out are on either side of former pier structures that were demolished in the late forties. We investigated 380 targets here. And this is where—the majority of the MEC that we found. We found 11 MEC items, and 225 munitions debris items. And I'll go through exactly what the items were in a minute.

This is the concrete rubble from demolishing some of the piers that were out behind building 266. This is what demolished our underwater sensor. To the far top right you can see us doing a sweep where we picked up these cartridge cases that were lying out behind the mud, on the mud behind 266. The blue paint was some biodegradable paint we used just to mark them so that we can shoot them with a GPS. And then here's that same photo on the bottom left of the guys working in the transect right out behind volume 226. And you can see the other debris out there.

Now we're shifting to the south shore, the west part of this area. This is what we call area A, which is between pier 35 and dike twelve. There were 115 targets, three transects. We found two MEC items, 1.1 inch projectiles, and fifteen munitions debris items. You see the little sign up there that says drainage creek? There's a drainage creek that drains from the Western Magazine area at low tide into this area. We didn't find any MEC up to the right side of that. To the left side of that as you're looking at it is really the west, and that's dike twelve. And a lot of dike twelve, the physical wooden part of dike twelve has been demolished, as you'll see in the next picture. The top right is dike twelve where those guys are digging where they found those two one pounders.

These are the wooden remains of dike twelve. And back behind dike twelve about eight or twelve feet is where the land mass of—really the eastern side of IR-05 has been eroded back. We think the one pounders that we found there may have been a result of IR-05 which is a disposal area, and could have been a kick-out or could have been something that was buried. It's the wooden structure that was decayed or was demolished that the items may have been behind it and went out there. Because there's no history in area A, it doesn't have any loading piers, there's no history of any MEC handling on piers associated with it. The top left just shows you a cross view at low tide.

The bottom left is a bad picture but they're digging. And this bottom right is what they thought was an old pier which turned out to be an outfall support pilings. This is area B. This is probably the most accessible area in the south shore. By that I mean you could drive up to it in a car, get out and walk down the sandy beach, and then you have the mud flats exposed at low tide; 460 targets here. We found—this is where we found the majority of the MEC in the south shore. 23 items, small fuses came out of that one anomaly that you can see up there. A couple primers and fuses over here to the west side of it.

An interesting point—if I could just make it up here where you see the very top two, 1990 emergency response actions recovered 5,000 pounds of MEC items out of there. And then Weston did a follow-up investigation after the subsequent investigation, and they found 1,559 items. The point here being is that 95 percent of the items that have ever been found in the south shore have been found within a radius of about one hundred meters base of dike twelve. There have been other things, but the majority—the bulk of it has been right there. This is a picture of area B. Top left you're looking out towards dike twelve and dike fourteen at low tide. You can see the nice sandy beach area. There are some rocks that are fairly easy to walk on. This is dike fourteen

looking back at the beach area. And this is some guys doing an investigation along the shore. Some of the areas in the shore area we couldn't physically get our land sensor—we call that an un-surveyable area—and we picked up those areas doing what we call a mag fight and dig approach, we would lay them off and just begin to dig everything that we found in that area.

Area C is the area from dike twelve to pier 34. 293 targets investigated. We found five MEC items, 20 millimeter rounds right by transect twelve. The rest of the area on either side was clear and set for some munitions debris items, mainly primers and fuses. This is, again—this is out on the mud flats looking back, top left; top right is the same thing. This is looking from the beach area over to pier 34. And this shows you how big the mud flat is, a negative minus two MLW tide or greater, and it's pretty firm with those rocks there that you can walk on. We also in 2005 -- towards the end of 2005 we did a sedimentation and MEC mobility study. To determine the sediment accumulation rates we used geochronology which is using radioisotopes, lead, and Cesium, which are the most popular ones that have been used for sediment characterization.

We used sediment or sedflume analysis to determine the erosion rates, critical stresses, bulk density, and particle profiles. And then on the last one, to determine MEC mobility we looked at environmental conditions, storms, things like that that would have the necessary forces to be able to physically move it. Dr. Craig Jones who works for Sea Engineering did the study. They're out of Santa Cruz and have done a lot of work in the San Francisco area. The conclusions—the results that he came to -- and I'm paraphrasing this, his study is over a hundred pages and will be attached to our remedial investigation.

The sediment erosion potential, that the tidal current doesn't create erosion in the PMA or the SSA—significant erosion in the PMA or SSA. What does create most of the erosion is the vessel traffic, and now the vessel traffic is primarily the ferries. The PMA shoreline is going—experiencing long-term erosion, and the south shore has reached equilibrium or net depositional. The conclusions he came to is MEC buried in the PMA may be exposed by the erosion created by the vessel wake but will generally remain in the same area. MEC buried in the SSA will likely remain buried in the south shore area. One thing that adds a little bit of further proof to that is we have a geophysical prove-out area where we have over 45 targets that we buried in 1999 at different orientations, different depths, different sizes, from twenty millimeters all the way up to six inch rounds. We've gone out there and surveyed them, and every year that we've done the work—and that's six years now—and there's been no significant movement—measurable movement in any of those targets. In summary of the RI results we investigated 1,897 anomalies. Approximately 31 percent found 41 MEC items, live items; there was a lot of scrap. We completed the mobility study and we again did our geophysical prove-out for the fifth time. No measurable movement on the different targets that we put out there. This is the summary of the MEC in the PMA and the south shore area. 11 MEC in the production manufacturing area, as you can see. Small items as well as some large items—larger caliber munitions all the way up to five inches. In the south shore we found 38 items, most of them small, the largest 20 millimeter, and the one pounder that was found—two one-pounders found out in area A.

Some of the conclusions are as follows. The majority of MEC located in the PMA and the SSA behind 266 -- building 266 in the PMA, and the shoreline area of dike fourteen in the south shore. The offshore MEC findings correlate with the on-shore in that if you draw a circle around building 266 about one hundred meters, and draw a circle around the end of dike fourteen about a hundred meters, that will encompass about 90 -- over 95 percent of all the MEC that's been found on land and—on shore and offshore. Again, the SSA had more items, but they were smaller in nature. The

PMA had larger caliber items. I have some pictures of those items back there that we can see at the break, and Jeff and I will be glad to stay for questions and answers after the meeting. Next one, please. The MEC and the MD munitions debris that was located in transects were distributed in higher density closer to the shoreline. So the farther out we went from the shoreline, the less and less items we found. Of the 49 MEC items that we had, they came out of 23 holes. And that represented about 1.2 percent of our targets. And then there's a source of small arms and propellant grains along the shoreline of dike fourteen. They've been found over a number of years. We found a few this year, although less in number. We suspect, because we found a couple pits that had a lot of small arms in it and a lot of Civil War fuses, we suspect that that is somehow gradually eroded away, and those items rolled down the beach to the mud line where the mud and the sand interface, because that's generally where we find them. We found no caches or large burial sites in the transects that had small arms in them. Our recommendations for IR-04 -- and these will be supported by area analysis and what their previous history were and what the future reuse will be. From IR-04 we recommend no further MEC action offshore. Nothing's been found there. PMA north—which is building 223 to 159 -- no further actions with controls has been decided. And by controls I mean for anything where we recommend no further action, we're recommending ordnance awareness and ongoing education programs. PMA south. That will assess the remedial actions in the feasibility study and investigate one hundred percent of the anomalies behind 266 -- building 266. In the south shore area A, one hundred percent anomaly investigation along dike twelve. In the area east of the drainage creek, no further action. Area B, which is the most probable area on the south shore for future recreational activities because of the amount of items that have been found on shore and offshore, we'll put that in and assess the remedial actions in the feasibility study.

Area C: One hundred percent investigation between transects 11 and 13, which is where we found the five 20 millimeter items. The rest of it on either side of that is clear, or at least we didn't recover anything in the additional sampling that we did. Future milestones: We hope to publish the report in December or January to document the findings and recommendations presented today. There's a meeting with the Navy and DTSC on the 13th of December to talk about an offshore strategy. We'll also—consensus will be needed with the BCT on the proposed recommendations. And also to develop a site specific hazard assessment. And then we'll do a feasibility study during the summer of 2007 which will look at remedial alternatives for each of the areas against the nine step CERCLA criteria, and select the best alternative, with input obviously from the BCT and the community. I know that was kind of a lot of information for thirty minutes, but they were holding a gun to my head. Jeff and I will be more than happy to stay and answer any questions. As I said before, we have a couple of pictures of some of the ordnance back there. Each one of you has a flyer in front of you.

CO-CHAIR BLOOM: There's time for some questions.

MR. MURRAY: Yeah, go ahead. Patricia or myself.

MR. THOMPSON: In the front you had said that you had attempted to—an offshore marine survey and that the sensors were damaged after 74 percent. Was there any data recovery from that, any evaluation?

MR. MURRAY: Yes, all the data for the south shore was recovered. And all the data, except for 26 percent on the north shore on the PMA is recovered. So we have that data. It's just that with the window—you get about 350 hours of summer, with a negative .2 tide MLLW or greater. And we

couldn't have investigated the marine and the land based data during the same field season. So that data is available, and I think Patricia will comment on that.

MS. MCFADDEN: It was also a resource decision. We just don't know exactly how we're going to investigate the further offshore, but we knew—we had some known findings along the shoreline, so because of basically the best risk reduction, we went after the shoreline first because; one, we could; and two, we had some known findings that we wanted to get more information on. So the further offshore is still pending. We're kind of separating it at this point because of the fact that we have some information now.

MR. THOMPSON: Do you know if the coverage area included the end of where that outfall—there were some posts noted, I think, in the SS area A.

MS. MCFADDEN: We did all of the areas between -- basically the ends of the piers. You could kind of connect a line between the ends of the piers, and that's how far we were able to get out. There were some gaps that we couldn't—we had to maneuver around, but we did as much as we could. It covers most of that area.

MR. MURRAY: The area around the pilings that you're talking about is under water almost all the time, the very end of it. And that was covered as close as we could get with the marine sensor. We did have an overlap of the marine data—the marine survey—with the land data. And the anomalies that we got with the land data mirror image the anomalies that we got with the marine data. So we're fairly confident that we got good data in the areas that we did collect.

MR. SABEL: In specifically area A, there were a lot of boulders and big rocks that really precluded the marine sensor from doing a lot of the overlay. Just wanted to throw that in because, like in areas B and area C, the overlaps are beautiful. The targets are showing in the land and in the water, and everything in the land is also mirrored in the marine. In area A we don't really have that because we just could not get the overlaps.

MR. MURRAY: But we did get around as close as we could.

MR. SABEL: Yeah, we got as close as we could. Yeah.

MS. MCFADDEN: Any other questions?

MR. GRIBBLE: Yeah, Mike. On the PMA north, that's the area where you didn't find anything—right—in your investigation?

MS. MCFADDEN: Correct.

MR. GRIBBLE: And.

MR. MURRAY: There was a previous on shore investigation in PMA north. There was a previous on shore investigation after 1994 where they were allowed to cut the grass and went down that area, and there's no record of any MEC finds.

If you look at the black line to the left, that's our line, that's our physical area going out. You can see where there was on shore results where those squares were, and there was another emergency response action out by building A224.

MR. GRIBBLE: Okay. So I think this has contributed—this investigation has contributed to what we know about the site, but it hasn't—it's only contributed only so much to what we know, and I submit that it's probably not enough. In other words, what you're proposing is that on the

basis of the previous investigation and this investigation which covered—what is that, ten percent of the area through—in the cross sections of the transects? You know, maybe ten percent, something like that, aerially speaking. And then on that limited survey you didn't find anything, therefore—

MS. MCFADDEN: We actually—these are all the samples that we looked at, so it's not just the transects. I just wanted to clarify that.

MR. GRIBBLE: Okay. But there—but if you did the survey with a hundred percent of the area and—I mean there would be a lot of anomalies that you would have found that you would not have excavated.

MR. MURRAY: Yes, sir, that's correct.

MR. GRIBBLE: So on the basis of investigating some percentage of the site aerially speaking—

MR. MURRAY: Between the transects we investigated fifteen percent of all the targets. In the transects we investigated one hundred percent of the targets. If you add all the digs that we investigated together, it represents about 31 percent of the total number of anomalies.

MS. MCFADDEN: And this was when Rizgar was on board, and this was what we worked out as a good way to get an image of where the problems were, whereas there may be areas of a lesser problem. And in the case of IR-04, an area where we feel confident there's not a problem, so—

MR. GRIBBLE: Okay. So the point here is that 31 percent of the anomalies that have been identified have been excavated, which is to say 69 percent of them have not. And on that basis what you're thinking of is to finish this site with a no further action for site controls. And I submit that that's really the old statistical approach which the agency has never accepted simply on the basis that we're doing a certain percentage of those anomalies that we've investigated and, therefore, we will conclude that the remainder of them, without excavating, are not MEC. And that's an argument that really has never gotten anywhere with the agency. So what I mean to say then is to get to that kind of an end point, no further action except with site controls, we would need to have more information.

MS. MCFADDEN: Chip, we acknowledge that—sorry, Mike. We acknowledge that, but we're kind of in this flux from going from Rizgar leaving, where we had talked with a lot of these things. And you're right, we have never gotten to a point where we can sit down, and that's the point of the 13th is to sit down and figure out some process by which we can investigate and gather sufficient information so as to be able to make conclusions. So we acknowledge that that—that, you know, further meetings—these are just our preliminary conclusions and recommendations. We realize we're going to be working those out with DTSC and EPA to figure out what works best for the site, but these are just our preliminary.

MR. MURRAY: The previous investigation that went all the way up the PMA, basically the same area we did but not out into the mud, they did a magnified approach, which technically they created lanes and grids. We have the grids that they did, but they didn't collect geophysical mapping, so we don't have the mapping to compare it with our mapping. So in the report—in the RI, the simple recommendation was that since somebody had gone up and magnified that—and you all have to decide the quality of that effort—and then the effort that we did, maybe it's not enough, as you said, to make the decision that you need to make. But at least we know more today, as you also said, than we've known.

MR. GRIBBLE: And I acknowledge that, and I think this is helpful.

MS. MCFADDEN: And we did make sure that we overlapped with the previous work so that there weren't any gaps in that shoreline area. And this area, in particular, is that grassy area beyond the buildings for those that are familiar with the area down at the PMA. Okay. Thanks, Jim. Are there any other questions?

CO-CHAIR HAYES: Yeah. Right up at the beginning I wasn't clear—let me see—on the geophysical survey. I think it's the third page after your phases and objective. The targets—you had 6,064 targets?

MR. MURRAY: Yes, ma'am.

CO-CHAIR HAYES: And then how—I don't understand what these bullets are, this 20 to 40 millimeter, 40 millimeter, and larger and larger mass anomalies. How did—how did you know that they were those—

MR. MURRAY: Well what we did is we took the targets that we put in what we call a validation system test, or the geophysical prove-out area. And we got the threshold or the response from each one of those munitions, both in different orientations at different depths throughout, and then we categorized the anomalies based on the response that we got.

CO-CHAIR HAYES: On the signal?

MR. MURRAY: On the signal.

CO-CHAIR HAYES: Right. All right.

MR. MURRAY: And that's better articulated in the report that you'll receive. But basically we got 2,770 responses that were in the 20 to 40 millimeter range. We got 3,052 in the 40 and larger. And the larger mass anomalies were what, Jeff, similar to a three inch round or larger?

MR. SABEL: They were 500 millivolts which is a three inch round with casing one foot below ground surface mass.

MR. MURRAY: That was to simulate a burial site. So those are the anomalies based on the response that we got from our geophysical prove-out tests.

MS. MCFADDEN: And can you say how many other large masses had munitions in them? Was it four? I believe it was four of them.

MR. MURRAY: I think that's the one we took out.

MS. MCFADDEN: It was in the report. But it was four of them—from what I remember—and they were all kind of clustered with other junk. And they were small items. But, you know—

MR. MURRAY: I've got the breakdown right there. We can get it out.

CO-CHAIR HAYES: The last RAB tour we did go out with you, I think, and we did see a lot of the junk. Because you were working on it right then.

MR. MURRAY: There's a lot of metal. I mean, I forget what the number was, it was 4,000, 5,000 pounds of metal debris that was taken out of there in addition to all the other stuff that we found, so that was a pretty significant amount of stuff, we had 4,300 pounds of scrap metal. I will say that we're relatively sure that, because we attacked all the LMA's. There were 242 targets in this PMA

and the SSA that had the large mass that were categorized as large mass, and we dug every one of those.

CO-CHAIR HAYES: Okay. Then just two or three other things. One, envisioning this area as being public—fairly public—accessible to the public, that's what our hope is; and many of us in this room having also served on the Regional Park Task Force that the city is working on, and we're getting to a point where our report will be made public in the next few months; I know that what some of us believe is a major concern or major opportunity for the park dovetails with your language in that—in your baseline institutional controls you would like—you would want to see ordnance awareness and educational training programs. To me, one of the key features of a training program, certainly these photos and as much visual information as you can give will be critical. And, of course, I think, you know, Diana's grand idea, and very, I think, practical idea of having a bomb museum is a great way to do that. However, photos of bombs aren't going to be nearly as effective as actually some samples of bombs. So I know we used to have a little case where you had some of the early stuff that had been found, and I'm worried, I guess—I continue to make these public comments and also with you privately—I think it's very important that you develop within this—these remedial plans that you have for wrapping up these areas, that you develop a mechanism for holding some of these objects to be used in some interpretive and educational manner at some point. And I don't know how that gets discussed. I mean you have these meetings with DTSC. In one—and you have these programs that you're doing, these cleanup programs. And I know you do a lot of disposal and certification of the materials to go off to, you know, recycling centers. And I know I'm going on and on about this topic—and I could let you answer—but my point is that even the scrap—if predominantly what you found was scrap, even scrap is educational. And I don't mean that you have to keep all 5,000 pounds of it—I mean some of us do do things like that at our house. But representative of what is scrap and what is not. And not because people are going to go out on treasure hunts, though now I guess there's personally held—personal like PDA's of GPS units and people are going to be doing that, I already know that. Little treasure hunts.

But I guess I want to know when in this process, because those tools are going to be so important, and good photography, you mentioned some of our photos aren't good, totally understandable. But where's the plan for the good photography, the good video clips? How are you gathering that material? What is DTSC doing to regulate this material or this data that's being collected in that form, not just in these numerical formats, so that you can assure that there is an effective tool which you've referred to as an ordnance awareness and educational training program? And my last comment on that is that before some of the key people we had worked with on this issue retired from the Navy this summer, we had—we had some commitments from them that there would be a fairly large sum of money, one-time sum in the hundreds of thousands of dollars possibly, to go towards the—a permanent installation of educational materials for this type of museum. But now is the time to begin to collect that, not only the data, but when you're collecting the real live objects to begin to have a plan to work with us as the members of the community who will be around maybe longer than you to make sure that we have the resources we need to do that program.

MS. MCFADDEN: I'll answer in part. I don't know if Chip wants to chime in, but I know I'm aware of your concern, Myrna, we've talked about it several times. And certainly we keep all the interesting finds that we have. The one tricky part that we have to get past is that with any kind of munitions item even, when it's certified inert, it has to go through a process to be then able to be

transferred to the public, which is what we'd rather do in the long-term because it will likely be a public run bomb museum or—

CO-CHAIR HAYES: And I'll just bring up a concern there too that the Navy has just notified some members of the public who are holding current Navy artifacts from Mare Island that they are very close to losing those. So I wouldn't—I would definitely make sure that you have sat down with people who have shown interest and commitment in long-term public education on ordnance, and not just assume that some particular organization that the city designates for all historical purposes on Mare Island would be a suitable organization to receive those materials. You need to start grooming, and possibly beforehand putting together some kind of strategic team; similarly to the way Weston did with the dredge pond anomaly review definition team. Where, you know, some members of the RAB were involved in helping you make some of the final decisions on that. But I think it's important that this issue, not just be brought up by me—but I am tonight—but to begin to have you talk about things like that in your closed December 13 type meetings. And bring the public in early and often on this topic.

MS. MCFADDEN: Yeah. And I think that we're a little bit ahead—or where we are in the process is a little bit before we end up talking about the controls, that usually does come at the end. But I agree with you that it's a good thing to be mindful of as we're having these discussions about what are possible remedies. So we'll certainly do that. And I'm sure Chip will agree that. We'll kind of keep it in our minds and talk about it. But, you know, I think it is a little bit down the line, but we can certainly keep our heads on the topic and consider it when we have items found or—

MR. GRIBBLE: I think part of the—what I understood Myrna to say is that if you don't start setting stuff aside now for this museum, that there won't be anything, any of the good stuff, the more valuable in terms of education value items may not be available, you know, post-RAB. And I think that's a good point. So maybe we can talk about that at our next meeting. To do that would—for us to require that, I think, at this point would really—that's really a remedial action requirement almost that the Navy will, you know, develop a set of materials for a museum. And we're not at a RAP stage. And so it would probably be something more of a—some type of intent that, you know, I don't know that the Navy can—is willing to commit. We certainly can't require the Navy at this point prior to a RAP to establish a work plan to establish a museum, but I think we can certainly discuss intent to set aside stuff for the likelihood or the possibility of establishing the museum at some point. And then somebody can talk about what constitutes good items. So maybe we can talk about that at our next meeting.

MS. MCFADDEN: I think we can work with getting some stuff put aside, you know. We have already—we do still have all the stuff in the cabinet and all of the—so we've found some interesting finds in the offshore of some—you'd do better to describe it—some type of fuses that are from 1891 and they were, you know, they had the ordnance guys all excited, you know. They're like little girls, ooh, look what we found.

CO-CHAIR HAYES: The little girls actually did get to see them, to handle them. I'm talking about things that might seem very mundane to you.

MS. MCFADDEN: No, we can put aside some casings and just some typical things that we find that may not be exciting but can be part of an educational process. So yeah, we'll be mindful of that and we'll work with Weston and all the ongoing projects to make sure to set aside some stuff.

CO-CHAIR HAYES: We know a lot of things weren't set aside and are now in people's very valuable collections, ordnance workers. And that's great. But, you know, maybe some could also be set aside for the community, or they could be provided a donation program or something. But anyway, we have other presentations tonight. But it's very—of great—

MS. MCFADDEN: Noted and agreed.

MR. GRIBBLE: Maybe we can talk about that further at the next RAB meeting after we have this December 13th meeting.

CO-CHAIR HAYES: Well, at some point maybe we could have a RAB focus group meeting where we come together and try to work out something that would work for the agencies, the contractors, and the Navy, and the community to make sure that we're all on the same page. But we don't have to take the time up here, but in a more focus group kind of way.

CO-CHAIR BLOOM: Okay. Neal.

MR. SILER: Michael, do you want to break right now and we'll set up?

CO-CHAIR BLOOM: Yes, before we do let me just ask, is there any public comment for our first public comment period? Okay. Seeing none, then we'll break.

(Thereupon there was a brief recess.)

CO-CHAIR BLOOM: All right everyone. We're going to begin. Phase two is beginning. David Clark, please take your seat.

CO-CHAIR HAYES: I just—while you're taking your seats—why did we do that, take our seats? I just wanted to note that I've been passing around a book called, "Islands of San Francisco Bay, the History and Ecology of the 48 Islands." And that book is a pretty fabulous book. It has Mare Island in it as well as Treasure Island and 46 other islands. But that is for sale on the Website, "IslandsofSFBay.com." And the man who's the photographer for this book will also be the festival's feature this year, February two through four. So the book is going around while our speakers are speaking, but I wanted to share it with you.

CO-CHAIR BLOOM: Thank you. Neal, we'll let you go now. You're going to be talking about the underground storage tanks, 231 and 243 area characterization.

III. LENNAR PRESENTATION: *Underground Storage Tanks (USTs) 231 & 243 Area Characterization/Remediation Update – Investigation Area H2 Eastern Early Transfer Parcel, Mare Island* Presentation by Mr. Neal Siler, Lennar Mare Island.

MR. SILER: Thank you, Michael. What I'd like to talk about today is one of the investigation areas that we had hoped to close last year, and the reason why we weren't able to close it last year and what we're doing about it right now. And what it really focuses on is underground storage tanks 231 and 243 in investigation area H2. And this gives you an idea, this slide right here, of exactly where we're looking at. We're in H2, which is in the center of the eastern early transfer parcel. And it's right on the boundary—the northern boundary between investigation area H2 and B. And this right here, this slide gives you a layout of the area that we're talking about. So you can see underground storage tanks 243 -- they're right up here—and also underground storage tanks 231 -- which are right down here.

And now this next slide shows you a lot of the facilities that are surrounding that area. This was a former fueling operation center for the island. And the underground storage tanks, they initially stored diesel and were used for diesel fueling operations. At the time that the tanks were taken out of service, they were actually gasoline at that time.

Now, underground storage tanks 243 one and two, they were installed in the 1930s. They were both steel constructed tanks with a capacity of about 6,300 gallons. Now, because operations expanded on the island into World War II, underground storage tanks 231-1 and 231-2 were installed in 1942 to take over the excess capacity that they needed along with underground storage tanks 231 -- I'm sorry 243-1 and 243-2. And these two facilities were interconnected, and you can see the pipeline that went through them right here. Now, both of these underground storage tanks were in service up until the early 1990s. Underground storage tanks 243, they were taken out of service in 1992. And underground storage tanks 231 were taken out of service in 1995. Now, the 243 area right up here—and I can show you on some of the slides we have. Okay. You can see the Navy removed these tanks in 1992. And when they did that they—one of the tanks, 243-1, had some holes in it. But 243-2 did not have any holes in the tank. And both tanks were heavily corroded, although they—there was no actual corroding in the pipeline between the tanks. Now, when they took out underground storage tanks 231 in 1995 -- and they actually took one of these tanks out of service in 1993 -- neither tank was corroded and there were no holes in the tanks, and the pipeline seemed to have retained its integrity also. Now, the one thing I couldn't find was any information about the pipeline in between here. And we talked about this and we showed you our initial results, our preliminary results that we've come up with. It's kind of interesting that these tanks were heavily corroded, had holes in them, and these tanks really didn't have much corrosion and did not have any holes in them. So following the tank removals in 1992 and 1995, the Navy went out in 1999 and did some additional over-excavation in this area right out here. And they started actually from the north, worked their way south, and they cut off the excavation right here above the western edge of these two tanks right here—which are 231 -- because they could not find any contamination. Now, when we started looking at this area—and you can see we started doing work in 2004 -- it looked like there was still some residual contamination remaining, so we went back and did some additional investigations. In the next four slides we'll show you some of the details of that excavation.

So this first slide right here is—this area right here shows you the western boundary of the tanks 231. That excavation was about ten feet deep. The water in this excavation right here is just rain water, it's not groundwater, so that gives you an idea for the extent of that tank. And when we actually did these excavations we took confirmation samples all around these tanks, and since we're going to be developing this area for residential purposes, we had to meet that residential criteria. So for gasoline that's a hundred milligrams per kilogram, and for diesel and residual fuel that's 500 milligrams per kilogram. So that's that excavation right there. Moving north along the pipeline, you can see this was a four foot excavation, which will give you an idea what that looked like. This next one is right at a junction point between the two pipeline areas. Again, that's another four foot excavation. And then this right here is the excavation that's right to the north of tanks 243, and that's another ten foot excavation. In fact, you can see the pipeline running through it right there. And then the last thing we did was because this area is right on the boundary between H2 and B—and that boundary line runs right here—this is building 531 right here and it's no longer there; this is building 231, and then here's 243 right here. When we were doing some infrastructure replacement we found some additional petroleum hydrocarbon contamination at this area, and we'll be actually doing some additional work in the future to go ahead and take some additional

petroleum hydrocarbon contaminated soil and groundwater out of this area, and that will probably occur next year sometime. But this, the boundary runs right through here. This is building 811. This is building 637 right here. So, after we did all these removal actions, and looking back at the removal actions the Navy did and what we did, we started discussing closure with the regulatory agencies. And for most of the areas that we had—the confirmation samples that we had, the concentrations were below the residential screening levels that we had to meet, but there were a few instances where it was still above. It wasn't really highly above. In a couple of cases—gasoline, we had like one that was 320. We had some diesel that may have been like about 1,400, a couple locations.

And when we started discussing closure, the regulatory agency said well, we would like you to go back and do some soil gas characterization before you actually do that—before we actually grant that closure. And based on the results of that soil gas survey, if those results are acceptable, we'll go ahead and do closure. But, to our dismay we got incredibly high concentrations of gasoline, benzene, and naphthalene in the soil gas. And this is the survey that we did back in 2005. And as you can see, we got 31 million micrograms per cubic meter of air gasoline, Five, 5,590 micrograms per cubic meter of air benzene, and 22,400 micrograms per cubic meter of naphthalene. And the screening levels that we're using for gasoline for residential development in the soil gas is 25,500 micrograms per cubic meter. For benzene I think it's about—it's either 85 or 71. And then this is either 85 or 71, I can't remember off the top of my head where it was. So we were shocked when we got these results. And when I first looked at them I thought that somebody had multiplied by a thousand instead of dividing by a thousand when they were doing their conversion. But lo and behold, as we went back and validated all the data, that was not the case. So at the time we got the data back—we did this survey in October, it was December and January and it started raining. It started raining very, very heavily. And as it rained the water levels came up, and they were actually anywhere from about three feet to two to three feet in this area. So, for us to be able to get really good soil gas data, we need actually a five foot air column. And so we had to wait until we could get that air column. And it took us all that time from early 2005 all the way until October of this year to be able to get that five foot separation and go back and take that soil gas data. So this gives you—this figure right here gives you an idea of the areas where we found soil gas that exceeded those residential criteria. So it's right in this area. We found some TPH, gasoline, benzene over in these areas right here. So that gives you an idea. So when you look at this, the thing that we had to do was go back and try to bound this entire soil gas area to be able to—two objectives. One, to be able to develop the rest of investigation area H2 we had to try to carve—try and carve this area out with an adequate buffer zone that was protective of human health around it. And then we had to know the magnitude and the extent to be able to develop some sort of a remedial strategy and actually do the environmental cleanup at that time. So, this October, November we went back and put in about 64 additional sample points. The ones that are numbered up here are all the ones where we had soil gas. As you can see, we also took some soil and groundwater samples. Some places we took actually soil, soil gas and groundwater samples, and some places we just took soil. Some places we just took groundwater samples to go ahead and verify what we had seen here. So looking at this data, we went back. And although these numbers have not been validated and they're preliminary, and we should be able to get some results back here in December, we also don't have the soil and we don't have the groundwater data back to be able to develop that remedial strategy. But we're still getting very high numbers of gasoline. And the highest one was about 54 million. And I don't know why they have eight significant figures there because it just looks like -- 54 million looks bad enough to me, you know what I mean? -- we

don't need the 2,857 in there. The benzene levels continued to drop, we're down to 770 micrograms per cubic meter. And the same with the naphthalene, we're about 1,325 micrograms per liter—I mean, I'm sorry—per cubic meter. So as we plot this data, we found that we were able to bound this soil gas plume to the west, to the east, and to the south, although it's not bound yet to the north. But as we go in and do the remediation in this area up here between buildings 811 and 637, we should be able to get a lot of the data on that. So you can see right here, here's this residential screening level for gasoline which is 25,550 micrograms per cubic meter. All the red dots in the area bound by this red line are above that screening level. The areas in green are below. And I've got maps also for benzene and for naphthalene. So there's the benzene, and that's where the 85 micrograms per cubic meter screening level. And as you take a look at the naphthalene outline, it basically mimics, except for the area out by 243, it mimics the benzene outline. So what we have to do now is get this data validated, make sure that it's exactly what we're looking at. Get the soil data, get the groundwater data back, and then develop a remedial strategy with the regulators.

So I just wanted to give you this to give you an update of where we are and what we're going to be doing in the future because this was an area that we'd hoped to, like I said, to have closure last year and it is had kind of fallen off the map, and I wanted to give you an idea of where we are with it at this time. So that concludes my presentation. If there's any questions I'd be glad to answer them. Yeah, Chip.

MR. GRIBBLE: Of all the soil that you excavated, was all of that taken off-site as contaminated soil?

MR. SILER: Yes.

MR. GRIBBLE: Now, there's a big mound of soil that's—

MR. SILER: None of that—none of the soil that is stockpiled on the eastern early transfer parcel comes from contaminated areas.

MR. GRIBBLE: I wasn't asking that.

MR. SILER: That's basically soil that we've actually had to overexcavate out of that D-1 and D-2 to be able to do our grading out there and stockpile it there. But any contaminated soil has been taken off-site for appropriate disposal. I know there's a stockpile that's sitting right to the west—I mean the east of this, like 243, but that's clean soil. And there's one that's right to the north of building 637, that's all clean soil also. We have an overabundance of soil.

CO-CHAIR HAYES: Well, you might be able to sell some of that soil to a dirt broker. I'm curious on this one slide removal action performed by LMI, 2004, how is CH different from LMI? You've got 2004 to 2004, and I thought CH was your contractor.

MR. SILER: CH does do almost all our work, but actually this work was done by MGO, Pacific States Environmental.

CO-CHAIR HAYES: Oh, so that's how you distinguish LMI from CH?

MR. SILER: That's right.

CO-CHAIR HAYES: Well, thank you for bringing this presentation to us. I know I had asked you a few months ago, you know, about it because I recall that it was—you had the preliminary data. So I appreciate this presentation.

MR. SILER: Okay. Any other questions from anybody?

MR. GRIBBLE: I have another one. It's just, you know, kind of tangential to this. But there was some Lennar soil that was sampled that the Navy was considering for the DRMO site, and I'm wondering where that soil is, that stockpile is?

MR. SILER: That stockpile, that's the one that's to the north of building 637, Chip. So it's sitting—it's a real long pile of soil that sits up in here.

MR. GRIBBLE: Okay. Because that—did you talk about that at all at your Lennar meeting? The analysis of that soil is peculiar in that it has some contaminants in there, albeit not necessarily high, but present that are really surprising given that that soil was supposedly from the residential area, former residential area. And I wondered if you—if you had gotten any ideas as to where that came from, those contaminants? Just for the sake of the others there was some, I think, elevated nickel and—

MR. SILER: Elevated lead is the main thing. I went back and looked at all of the results of that. And it was a four point composite sample because Weston was looking at that to potentially take it and use it as cover material out in the H1 landfill. But it had some high lead. And I went through and looked at all that and divided it, you know, looked at it from the—basically if it was four times, because if there was one sample in there that was—that basically was four times the result we were seeing, you had dilution from the other three samples. The only thing that I saw was the lead that was above any kind of an industrial or residential screening level. I didn't notice anything else. Somebody told me there was PCBs. I went back and looked at that. It doesn't have high PCBs, over the residential levels. It doesn't have high TPH. So it was lead that was the thing that I noticed. Now, where that comes from, that comes from excavations along Azuar Drive as we were putting in new infrastructure.

MR. GRIBBLE: I'm not sure that's the way we would interpret it.

MR. SILER: Well I mean I just went back and looked at it and tried to compare it that way, so—

MR. GRIBBLE: Generally if you have a high composite, that means you probably had one of the component—components of that composite, potentially, particularly high, and that level was reduced by composite.

MR. SILER: Well, that's one scenario.

MR. GRIBBLE: That's one scenario.

MR. SILER: The other scenario is that they could all be the same.

MR. GRIBBLE: And I think statistically Lennar did—

MR. SILER: The other scenario is they could all be different.

MR. GRIBBLE: But also, that doesn't explain the elevated nickel and the hydrocarbon.

MR. SILER: I didn't notice elevated hydrocarbon in it. I'd have to go back and take a look at it. I know there was elevated lead, I know that for sure.

MR. GRIBBLE: So going back to this site.

MR. SILER: Uh-huh.

MR. GRIBBLE: Did you find any green sand in this—in any of the excavations in this area?

MR. SILER: Not that I'm aware of. In those excavations that I think that CH did, and the ones that we did along this area right here, there wasn't—may have been some, but it may have been very, very minor green sand. But there wasn't any appreciable volumes of green sand that we found. Do you remember, Steve?

MR. FARLEY: I remember just incidental green sand on the west end. I'm talking LMI.

MR. SILER: This one here?

MR. FARLEY: Yeah.

MR. SILER: Okay.

CO-CHAIR BLOOM: Any other?

MR. SILER: Anything else? Okay. Thank you very much.

IV. ADMINISTRATIVE BUSINESS (Myrna Hayes and Michael Bloom)

CO-CHAIR BLOOM: Thanks, Neal. Next is our administrative business announcements. First, I'd like to say if you have any comments on the minutes that were in your packets, please get them to myself or Myrna for incorporation. Secondly, the announcement I'd like to make is we are having our Mare Island RAB tour in two days, on Saturday. And if you have not signed up, there is a sign-up sheet here. We would appreciate you signing up and letting us know if you are coming. Also, Carolyn, raise your hand back there. You can also see Carolyn if you—if the sign-in sheet doesn't get to you. Myrna do you have any announcements, anything else?

CO-CHAIR HAYES: No.

V. FOCUS GROUP REPORTS

CO-CHAIR BLOOM: No. Okay. We'll go into our focus group reports. Community is still vacant, so is -- natural resources, anything?

a) Community

Vacant.

b) Natural Resources (Jerry Karr)

CO-CHAIR HAYES: Nothing to report.

c) Technical (Paula Tygielski)

CO-CHAIR BLOOM: No. Paula, technical? Where's Paula?

MS. TYGIELSKI: I have—the technical focus group has not met. However, I have been mulling over in my mind for about a month the idea—the issue of institutional controls, and I think it needs to be visited far more carefully. I notice in the presentation—first presentation we had tonight they talked about some institutional controls involving education and, you know. And there have been many times in the past that institutional controls have been brought up for PCBs. And it just concerns me as to how much of this island has an institutional control on it? How much? And I just think we need more information. And the last time there was no mention of Guardian Trust, so what's happened? Okay. So that's what I've been mulling over.

CO-CHAIR BLOOM: Noted. Thank you. We will take your comments and—I mean maybe what we want to do is have a presentation on IC's and everything we've talked about. So we'll take that into consideration.

d) City Report (Gil Hollingsworth)

CO-CHAIR BLOOM: I don't see Gil from the city, although that's true because he told me he wasn't going to be here. Is there anybody else? I don't believe so. Lennar update, Steve.

e) Lennar Update (Steve Farley)

MR. FARLEY: Thanks, Michael. Got a couple of handouts over on the table. If you didn't get one, grab one before you leave tonight. Let's start with the eleven by seventeen. In the upper right corner there's some paving that's going on. That's an area that we—on the back side, the west side of the building 535 we just finished some excavation at. It's nice to see some actual paving and some completion of the activities, so I wanted to show what that looks like. Also it's kind of interesting to see how the paving process works, I think. In the—below that photograph is—it may be a little bit hard to understand, but I showed this because I thought it was really quite interesting historically. That photograph is titled, "Historic cobblestone pavement near building 690." We're doing some excavation there for lead contamination in soil. Across the top of that photograph, the dark, dark gray band is the current ground surface, it's about a two inch thick layer of asphalt. And a the lighter colored stones about a half inch down is an old cobblestone roadway or pavement that was constructed, potentially as far back as the late 1800's, associated, it's thought, with a former saw mill that operated in that area. And I just thought that was interesting. We've encountered a couple of things now over the last four to six months where we've had the archeologists and those folks out to take a look and make sure that it's properly recorded and it's documented. And I just thought that this was interesting. It was really quite something when we encountered it. So I just bring that to your attention as a point of interest, I think. On the left-hand side is a photograph of some drilling activities that we're currently performing out in the crane test area. It's a hollow stem auger. And I'm assuming—for those that aren't too familiar with drilling, I can just take a moment and explain what a hollow stem auger is. The drill bit turns like a large screw and bores a hole in the ground. The inside of the drill itself, which you can see sitting on the ground, is actually hollow, and there's a bit on the end of that that keeps the dirt from coming up inside the core of that. And so the screw pulls the dirt up out of the ground, it's collected, put in a stockpile. But the advantage of the hollow stem auger as compared to a solid stem auger is that you can collect samples from within that auger. So imagine having sort of a straw, a large piece of straw or piece of pipe, you draw that down, and then you can drive a sample ahead of that drill bit into the subsurface to collect in situ soil samples. Commonly it's called a Cowell sampler. Sometimes they're called Shelby tubes, long brass tubes that allow you to collect in situ soil samples, then those can be shipped off to the laboratory for analysis. In this case we're installing—we installed ten wells within the crane test area; five shallow wells and five deeper wells to try and collect some additional groundwater data for purposes of characterizing the water quality, both within the fill material associated with the upper four or five feet of the crane test area, and then the deeper dredge materials below it. So that's what that was all about.

We're also completing some activities in the triangle area. The triangle area is the area between dry docks one and two. It's labeled on the map as being the triangle area. We had about fourteen individual locations within the triangle where we were primarily doing removal actions for lead. Max concentration of lead in that area was about 23,000 milligrams per kilogram. And we have

just completed the removals and backfilling, and we removed a total of about 4,000 tons of soil from those fourteen individual locations, all within the triangle area.

We're also doing some work again for lead in soil in the area between building 690 and building 112. Building 690 is—on your map is about an inch to the south of the triangle area. Max concentration of lead in that area is 63,000 milligrams per kilogram. And this is also the area where we found that cobblestone pavement. And one thing to notice is we're using an XRF machine or device, x-ray flouorescence, to guide the excavation. The purpose of that is to—basically it's sort of like a ray gun. And it hits the sample with a certain frequency of x-rays, and you get a response based on the approximate concentration of lead in the soil. We're not using that to determine when to stop excavating, but we are using that to determine in which direction should we go? How much more should we over-excavate before we do collect those confirmation samples? It cuts down on the iterations that we have to do based on the excavations. To date we've moved approximately 1,500 tons of soil from that area and we're still continuing. Building 84 is just a little to the south of building 690. We've talked about this one before, I believe, where we're doing some PCB work inside the building. We've done a number of excavations in there. We've removed the floor inside the building. We cleaned the inside of the building. And we're waiting for the latest results from some overexcavations of the soil to come back before we perform some indoor air sampling inside that building. The target cleanup, by the way, for the soil inside the building is 0.22 milligrams per kilogram for PCBs. There are then about five or six individual buildings; starting at the lower right are buildings 720 and 180. Then up by the training, building 108. And then up to the—in IA-B, buildings 523 and 527 where we are doing what we call PCB package number three, where we group sites together into large blocks of work, send that work out to bid, and then have a contractor come in and do the excavations for us. We're just now beginning that. Cleanup levels for those areas, depending on the future use, will either be 0.74 milligrams per kilogram or 0.22 milligrams per kilogram. So that work is just now kicking off. And then the last thing I'd like to mention is we're doing some work at two UST sites, UST 742 down at the lower right corner of the map, and UST 839 up in the upper left corner where we're collecting some additional groundwater samples—six groundwater samples—or I should say six sampling locations at each of those two UST sites. And that's pretty much the big picture for now. I guess the only other thing to mention is that we're working hard to finalize the IA-B2 RAP. That's all I had, Michael.

CO-CHAIR HAYES: I have a couple of questions for you. On the UST 742, I thought that—isn't that the area of—the storm drain area that's still owned by the Navy?

MR. FARLEY: Yes, there's been some recent discussions with the Navy about that, and we're working on the details to figure out who has responsibility for what, and what needs to happen next. But UST 742 is our responsibility.

MR. SILER: UST 742 is not the Navy's responsibility, is it, the storm drain? But south of building 742, that's the Navy's responsibility.

CO-CHAIR HAYES: And so they're—

MR. FARLEY: They're two different sites.

CO-CHAIR HAYES: I understand, but how far apart are they?

MR. SILER: They're probably a couple of hundred feet.

MR. FARLEY: Yeah, a couple hundred feet.

CO-CHAIR HAYES: Because the 742 storm drain thing seems like it's kind of a big problem still. And then, on your presentation sheet here, why do you have bomb shelter 33 noted?

MR. FARLEY: I'm sorry, I forgot to mention that one. That's another one where we're doing some PCB work inside the building.

MR. GRIBBLE: I have a question or comment actually. On the UST 742 -- I'm not up on that because that's a Lennar thing and that's Henry Chui's area that he works on. But just now that I see that here, just a reminder that the UST history for all the tanks on Mare Island is so poorly documented, that long ago we made the assumption that any one of these tanks is a potential CERCLA site, meaning that they could easily have—anyone could easily have been used for something other than hydrocarbon. And so when you get into that UST 742, my suggestion would be that you take that possibility into account when you chase after 742, the tank, and do your sampling and excavation. There's some potential that that—there may have other contaminants associated with that along the lines of what Myrna said.

MR. BLOOM: Weston update, Cris.

f) Weston Update (Cris Jespersen)

MR. JESPERSEN: Okay. In the first part of the report, Weston submitted the final area H1 remedial design plan. This plan will address the remaining cleanup activities associated with the H1 remedial action plan. And right now the agencies are doing their final check of the documents to make sure the comments have all been addressed. We continued work on the area H1 containment area cap installation and wetlands creation. We have had some issues with weather this month with rain starting to come in, but as weather permits we've been continuing work on the construction of the engineered cap for the containment area within H1 that contains the historic RCRA facility landfill and some other areas there. We're working to get 45 acres capped this fall. Right now we've got about 35 acres completed. And, weather permitting, we'll get the rest of that work done here by the end of the year. The remaining portion of the cap will be constructed next summer, and we will be consolidating some excavated soil from hot spots within other areas of H1 within the area that we'll cap next summer. You can see in the photo there that shows the placement of some of the interim cap layers. We're also in the process of creating some new wetlands within H1, 8.2 acres of new wetlands that will be created to replace the wetlands that will be destroyed as part of capping the landfill.

And you can see in the photo on the top right, we've begun excavation of some of these wetland areas. And so we're taking these areas down to within one to two feet of the groundwater table, then we're taking some confirmation samples to make sure there's nothing left in there that would be deleterious to the plant species or the salt marsh harvest mouse. Once we receive that confirmation, we'll actually be coming in and planting the area with pickleweed and other native species to provide habitat for the mouse. And then, finally, we believe we're nearing completion of the munitions investigation and removal action of the Western Magazine area. You can see the statistics there. We looked at 5,000 magnetic anomalies. Found 4,000 munitions debris items and 537 live munitions items. And we're in the process of responding to the agency comments of the RAP, the remedial investigation report and the other data gaps sampling plan that we can submit to the agencies in early December. And you can see photos of some of the latest finds out there in the Western Magazine area. So with that, does anybody have any questions?

CO-CHAIR HAYES: On the wetland re-creation, what's the possibility—this is Navy property, you're the contractor—what's the possibility of that being a possible—I mean a Flyaway Festival site for people to visit, or will there be anything that would be of interest for people to learn about, to be able to learn about your wetland creation project there?

MR. JESPERSEN: Let me defer that to Michael. If the Navy doesn't have a problem with it, we can certainly put together a tour of some sort.

CO-CHAIR BLOOM: We can look into that, yeah.

CO-CHAIR HAYES: Is that property that's—DTSC would be—would have an issue with the public visiting?

MR. GRIBBLE: You know, I'd have to go take another look at the map. But probably yes. What I'd look at the map to see is if you can—how well you can see that from the perimeter, the periphery of the H1 area. There is contamination in this part of H1. And I'm not sure about this particular area where they've got the photograph. But the wetland creation involves not just lowering the grade, but also taking out hot spots and then retesting, resampling, reanalyzing the samples for containment levels. So, you know, I could go take another look at our maps and see, but I think in general the answer is no in terms of going right up there.

CO-CHAIR HAYES: Well, that's just another example of how I think DTSC is actually shooting itself in the foot. I mean, what we're trying to do is show folks, you know, environmental cleanup and progress on Mare Island, wetland restoration. And I thought that we were doing environmental cleanup and reuse kind of simultaneously on some of these properties. But this is just another example, I think, of where the agency, you know, is not really getting the public involved in the process. But that's to be expected, I guess.

MR. BLOOM: Regulatory update, Chip.

g) Regulatory Agency Update (Chip Gribble/Carolyn D'Almeida/Brian Thompson)

MR. GRIBBLE: Actually our concern is exposure by the public to contaminants and the risks. And, yes, we're very conservative about that, but that's our business. I wanted to go back to Steve's presentation about the pavement there, and just a comment. I agree with you, I think Mare Island is a dream for a pavement historian. And there's just so many different pavements here over such a period of time, that for somebody that's interested in that thing, this is the place to visit. In fact, the pavement industry, the historical society, and they asked me not to say the acronym for that because I could get in trouble, let's just say they're discussing either a site visit or one of their national conventions to come out here and look at that.

MR. FARLEY: I'm waiting for the other shoe to drop, I'm sorry.

MR. GRIBBLE: Well, I'm fascinated by the pavement history, but—we've been working on—following up from the last RAB meeting, we did get into the—largely at the prodding of Carolyn, we did look further into the issue about the MEC find on the Vallejo side of the Mare Island Strait. And both the EPA and DTSC have sent letters to the Navy requesting that we reevaluate that in terms of how that's managed in terms of—or investigate it, I guess, in proposing that the Navy take that on. I think probably Michael can talk more about where—the Navy's thinking at this point about how to handle that. In terms of FUD site versus a BRAC cleanup site or other. But we did discuss that today in our meeting, and I guess it's fair to say that the Navy is considering it at this point.

CO-CHAIR BLOOM: Yeah, we did discuss that earlier today, and we are looking into it. We did receive both letters today; one today, one yesterday. But the issue is, it's depending on when the property was transferred, before '86. But we're looking into that and we'll see what we can do and find out.

CO-CHAIR HAYES: Did anybody learn whether that is—was actually ever transferred fee title? The last I knew it was a public benefit conveyance to the City of Vallejo through National Parks from the Navy. And I thought the—there was still federal ownership for a period of time on that property. I don't know whether you had documentation to show a fee title transfer yet? I don't know.

MR. GRIBBLE: I don't.

CO-CHAIR BLOOM: Yeah. I don't know that for sure. David, do you know, I mean what we're looking into as far as fee title?

MR. GODSEY: I wouldn't. It was transferred to the City of Vallejo in 1974.

CO-CHAIR HAYES: It's through a public benefit conveyance through the National Park Services, so it's not a fee title transfer.

CO-CHAIR BLOOM: We'll look into that a little more. Carolyn.

MS. D'ALMEIDA: Well, Chip already gave away my report, but I brought copies of my letter that I sent on to the Navy you can at least have.

CO-CHAIR BLOOM: No, I don't need it.

MS. D'ALMEIDA: And other than that, I could just put in a plug for those who are supporters of the arts. My choral group, Napa Chorale, is going to be performing at Jarvis on Saturday the 9th and Sunday the 10th. Tickets $35, complementary wine and cookies. We're performing Vivaldes, Gloria and three rock cantatas. Tickets are available through Jarvis at (707) 255-5445. And it's getting close to selling out, so you might want to think—get your tickets this week if you want to go. And I'll pass this flyer around.

CO-CHAIR BLOOM: Thank you. Brian?

MR. THOMPSON: I have nothing to add tonight.

VI. CO-CHAIR REPORTS

CO-CHAIR BLOOM: Thank you. Our co-chair's report. Myrna.

CO-CHAIR HAYES: Well, I've talked enough and I don't even need to put the microphone on. I just will remind you that the Flyaway Festival is February two through four. So since we don't have a December RAB meeting, depending on when our January RAB meeting is, the Flyaway Festival will be coming up right away after that. So this is a good time to remind you, and invite any of you who want to participate in any way, present PowerPoint presentations, tours, photography, serving wine, whatever you like, sending us money, you're all welcome.

CO-CHAIR BLOOM: Okay. Go ahead.

CO-CHAIR HAYES: I just want to remind you that the Regional Park Task Force report that's been being worked on by a number of us, Diji, Diana, Kenn, Cris, Dwight, and others is—the contractor is close to being selected by the city to assist the task force in completing that—those recommendations. And there again, this would be an example of where it would be, I think, really

critical that the city, the Navy, the regulators, and the early transfer proponents—whoever they are—if the early transfer is still active or if it's proposed to be, you know, reignited sometime soon, it would be highly advisable for you to be working with us or somehow in contact with us I think before that report is finalized. And I think it would just be critical for your path forward in terms of environmental cleanup to mirror or to dovetail with the plans for the recommendations to the City of Vallejo for the reuse of the southern end of the island.

And I can't stress enough that we worked really hard to try to figure out where the cleanup was going. But since the early transfer, conversations have never been brought to us here in public. And we now don't know what's going on with them with the bifurcation of the—whatever's going on with the north end versus, you know, whether there's going to be two early transfers or no early transfers or one proponent or three or four proponents. It's really important that we be able to have the very best guess we can going in to making those final recommendations because we've planned to make recommendations based on phasing of the park based on the environmental cleanup timelines.

MR. GRIBBLE: I have a question on that because I did read the RFQ, RFP, something. And I thought that what I got out of it is that it provided an outline of the plan to use the southern end, but that the real valuable thing to take note of would be the actual proposal from some consultant or contractor which hasn't happened yet, you don't have any of those. Is that—am I missing something?

CO-CHAIR HAYES: Yeah. The RFP did include the draft task force report because we're—the RFP is, its intention is to have a consultant assist the task force in its final preparation of what you saw in draft. So the city, I hope, is close to the selection of—or an agreement for that contractor to help the task force finalize that report. But if we don't have—if the report in its draft form is radically different in its phasing schedule from what you expect the environmental cleanup phasing or schedule to be, then it's not going to be a very useful document to the City of Vallejo and to others who would move forward with those recommendations, hopefully in the development of master plans, strategic plans, and resource management plans, and those sorts of things. So that plan—those recommendations are going to be being finalized in the next few months with the assistance of a professional consultant to help put that report—move it up a line to the council.

MR. GRIBBLE: Do you see any value in making a presentation to the RAB or should—would it be sufficient for us to just read it?

CO-CHAIR HAYES: Well, it might be constructive to at least have a focus group meeting around it. Might be more useful—use of people's time. Just again, because—not because you need to bless the reuse strategy necessarily or, you know, the proposals, those are just proposals of the task force. But to the extent that you, as regulators and people who know the site, I know, investigators, can help make sure that the task force ideas for the property passes the straight face test in terms of what's there, and also the schedule. Then it will be helpful again in future implementation of the recommendations.

MR. GRIBBLE: So I think that's a good point because the—in the early transfer development from DTSC's end—and I'm not going to be—obviously not going to be the only one involved. And so the idea of a focus meeting would—I think would help bring some other people in from the department, in particular, you know, and make them more aware of that component. So I'd support a focus group meeting.

CO-CHAIR BLOOM: Thank you. As far as the Navy update. We were out in the field at the F1 area resampling for some CERCLA contaminants and PCBs looking to—filling in information from our data gap—data gaps in 2004. We also are installing two groundwater monitoring wells in that area. We continued our work at the DRMO area excavating soil. We hope to finish that in December. And because we're not meeting in December, I put on here we're going to be doing a pilot study to determine the effectiveness of the rapid sediment characterization tools. And that's going to be used to analyze sediments for metals and PCBs. And we're going to use it to evaluate the future use of rapid sediment characterization tools in our upcoming sediment study. And so that's going to be occurring, I believe, the third week of December. And we submitted three documents this month. One was for the F1 sampling that we performed. And a response to comments on our RAP ROD for site seventeen. And also for—on our proposed plan for the same. We had a BCT RPM meeting actually right before this meeting tonight. And we plan to issue four documents in December, and those documents are listed below there. And early transfer discussions have pretty much halted, we're awaiting to hear more information, Myrna, as you've described. Any questions? Any public comment on our second public comment round?

CO-CHAIR HAYES: I don't know if I can be considered a public comment, but I think that is—can be a topic not on the agenda. But since Jim Davies is here and he's indicated that he was representing Touro, I think that it would be constructive for the RAB to at some point understand better what Touro's plans would be regarding the environmental cleanup issues at the north area of the island, you know, what their strategy is. We know there's, you know, a lot of infrastructure needs as well. But specifically on environmental cleanup issues what their strategy is, and how they envision is the RAB being involved in that process. So that's just a topic I think would be something I'd like to consider for the agenda maybe in another month or so.

MR. DAVIES: Would you like me to give you a quick update on Touro?

CO-CHAIR HAYES: I'd prefer that we probably, you know, talk about whether there's a willingness for Touro to put it on our agenda.

MR. DAVIES: Oh, absolutely.

CO-CHAIR BLOOM: Okay. We'll consider it for --

MR. DAVIES: January?

CO-CHAIR BLOOM: For next time. With that, we will adjourn our meeting. Happy holidays, everybody. I hope to see everybody Saturday at the—at 10:00 o'clock, building 535, to start our community RAB tour. And if not, our next meeting will be January 25, 2007.

LIST OF HANDOUTS:

The following handouts were provided during the RAB meeting:

- Presentation Handout – USTs 231 and 243 Area in Investigation Area (IA) H2 Lennar Mare Island
- CH2MHill/Lennar Mare Island Deliverables Schedule November 2006
- Mare Island RAB Update November 2006 – Weston Solutions
- Navy Monthly Progress Report Former Mare Island Naval Shipyard November 2006

(Thereupon the foregoing was concluded at 9:04 p.m.)

CDM Transmittal

CDM.

9444 Farnham St. Suite 210
San Diego, California 92123
(858) 268-3383
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To:	Diane Silva	**From:**	David Lange
Organization/ Address:	Navy SWDIV 1220 Pacific Hwy., Bldg 129 San Diego, CA 92132 Phone: (619) 532-3676	**Date:**	August 1, 2007

Re: Mare Island Information Repository – Final Minutes for the RAB Meetings November 2006 – June 2007

Job #:

Via: *Mail:* *Overnight:* Fedex 2-day *Courier:*

Enclosed please find:

For your information	X	**Approved**	
For your review		**Approved as noted**	
For your signature		**Returned to you for correction**	

● **Message:**

Diane,

Enclosed please find two copies of the Final RAB meeting minutes from the November 2006 through June 2007 RAB meetings at Mare Island Naval Shipyard for the administration record/information repository. If you would like anything placed in the information repository, please forward it to the attention of Peggy Bloisa in our Walnut Creek Office. Please replace the current contact name of Darlene McCray with Peggy Bloisa. Please call me with any questions

Thank you,

David Lange
Project Manager

Signed