



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

HELD THURSDAY, September 27, 2012

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, September 27th, at the Mare Island Conference Center, 375 G St., Vallejo, California. The meeting started at 7:04 p.m. and adjourned at 9:39 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)
- Paula Tygielski
- Chris Rasmussen
- Jerry Karr

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

- Janet Lear (Navy Co-Chair)
- Reginald Paulding (Navy)
- Heather Wochnick (Navy)
- Dwight Gemar (Weston Solutions)
- Gil Hollingsworth (City of Vallejo)
- Neal Siler (Lennar Mare Island)
- Elizabeth Wells (San Francisco Bay Regional Water Quality Control Board [Water Board])
- Janet Naito (Department of Toxic Substances Control [DTSC])
- Carolyn D'Almeida (U.S. Environmental Protection Agency [EPA])

Community Guests in attendance:

- Ryan Wensink
- Jim Porterfield
- John McGuire (Shaw)

RAB Support from CDM:

- Carolyn Moore (CDM Smith)
- Heather Puckett (CDM Smith)
- Wally Neville
- Doris Bailey (Stenographer)

I. WELCOME AND INTRODUCTIONS

CO-CHAIR LEAR: Welcome, everybody, to the Mare Island Restoration Advisory Board. We'll start with introductions. I'm Janet Lear, I'm the Navy co-chair.

CO-CHAIR HAYES: And I'm Myrna Hayes, the community co-chair.

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

MR. KARR: Jerry Karr, Napa Solano Audubon.

MS. TYGIELSKI: Paula Tygielski, community member from Benicia.

MR. SILER: Neal Siler, Lennar Mare Island.

MS. WELLS: Elizabeth Wells, Water Board.

MS. NAITO: Janet Naito, Department of Toxic Substances Control.

MR. GEMAR: Dwight Gemar with Weston.

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

MR. PAULDING: Reginald Paulding with the Navy.

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

MS. WOCHNICK: Heather Wochnick, Navy.

MR. WENSINK: Ryan Wensink, Battelle.

MR. MCGUIRE: John McGuire, Shaw.

MS. MOORE: Carolyn Moore, CDM Smith.

MS. PUCKETT: Heather Puckett, CDM Smith.

II. **PRESENTATION:** *Remedial Investigation at UXO 3 [Unexploded Ordnance] – Dredge Pond 3E and Northern MCFR [Marine Corps Firing Range]* **Presentation by Mr. Reginald Paulding (Navy)**

CO-CHAIR LEAR: We have a lot to cover tonight, three presentations, so we'll get right to it. Our first presentation is Remedial Investigation at Dredge Pond 3E and Northern Marine Corps Firing Range presented by Reginald Paulding with the Navy.

MR. PAULDING: Good evening, everyone. This is a new site that I'll be presenting tonight that's in the northern end of Mare Island. You have a packet, and in the back of the packet are about five or six 11x17s of some of the photos and figures in the presentation. We're going to go over the site description and locations, the site history, the proposed remedial investigation approach, and the last slide is the remedial investigation report topics. So briefly here, UXO3 is in the northern end of the island. It includes Dredge Pond 3E east of the Joy Survey Line and the northern Marine Corps Firing Range. It's next to the Alco [Metal & Iron Company] recycling building for those that are familiar with that area, and future use will be a wetland. So here's the first figure, and you have a blowup of this in the packet there. You can see the blue area is Dredge Pond 3E and this red rectangular shape is the northern Marine Corps Firing Range. The green dash line is the Joy Survey Line. The area that we'll be investigating is east of that line.

CO-CHAIR HAYES: Reginald, it'd probably be a good idea to explain what the Joy Survey Line is or what the significance is of that.

MR. PAULDING: Okay. Sure. I don't know all of the details on the Joy Survey Line, but what I do know is that property west of the line was transferred in the western early transfer to the City of Vallejo back in 2002, I believe. And the property east of that line is the Navy property, and then some of the other property has been transferred to Lennar, which is the eastern early transfer.

CO-CHAIR LEAR: There's the eastern early transfer and then other properties transferred to the City.

MR. PAULDING: Okay. Here we have the site map. It's a closer, better detail of the area. And a couple of things I'll point out include the 1,000-yard target berm. There's a target berm labeled M367 which is just west of Building 751. There are several firing points for different distances from the target berm. Again, you'll see the green line which was the Joy Survey Line. You'll see two green circles, which are outfalls for the dredge pond, one east and one west of the Joy Survey Line. And then you'll also see a rectangular area on the south end of Dredge Pond 3E, which was a former dredge ditch. A little brief history on Dredge Pond 3E. It was in operation between 1931 and 1948. The items that we covered include levees, the dredge ditch, and two outfalls. Thirteen acres of the dredge pond were transferred to the City of Vallejo back in 2002 as part of that western early transfer. The remaining 33 acres east of the Joy Survey Line will be investigated as part of this RI, remedial investigation.

The northern Marine Corps Firing Range was in operation between 1917 and 1940. It includes the 1,000-yard rifle range and target, and 2,600-yard rifle and pistol ranges, which were fired into the M367 target berm. And both of those berms have been leveled; they're no longer visible. So we have a 1948 historical photo that shows where the berm locations were, and some of the features in the dredge pond. And again you have a larger version of this in the back of your packet. So here you can see the 1,000-yard berm, the M367 target berm, and the ditch. And you can see the levee roads and such. I have a couple site photos. These photos were taken when we did a site walk back in June 2011, so you can just see there's water from the winter rains in the pond. And then this is a part of the levee.

So there have been some investigations at Dredge Pond 3E in 1997 and then another in 1998 through 2001. And in that time, one inert ordnance item was identified near the western outfall. That was a 40-millimeter cartridge casing. We also found six radiological items back in the 2000, 2001 time frame. Those were buttons and rope, which are pretty typical items for the dredge ponds. And we also collected some sediment samples, and those contained arsenic, pesticides, and PCBs [polychlorinated biphenyls] above the established screening levels at the time. On the northern Marine Corps Firing Range, the team went out in 1994 and they were able to identify wood, concrete, and other debris at the approximate location of that 1,000-yard target berm. And in 1996 they went out and did an investigation and found some .38 to .70 caliber ammunition around that same area. And in 1995 at the M367 target berm they were able to identify bullet fragments and other remnants of that target berm. So with these remnants and the maps we were able to put together the area where we believe these berms to have been, and that's what we'll be investigating, and we're going to talk about that in a couple of the later figures.

So sediment samples were collected at the time and analyzed for copper, lead, and zinc. And 2 of 70 samples contained lead above established screening levels at the time. So to get into the

planned investigation, these are just some of the steps that are involved in going out and doing the field work. Starting with mobilization, and then a surface radiological survey. Then we'll do a digital geophysical mapping survey to look for metallic items that could be out in the dredge pond. We'll do an anomaly investigation based on the results of the digital geophysical survey and the radiological survey, looking for radiological and metallic items. And then we'll do soil sampling as part of that anomaly investigation. And we'll also be sampling other locations throughout the dredge pond and the levees for chemical constituents of concern. And we'll install borings again on the levees and on the pond bottom, and we'll also complete 16 additional test pits. And we'll collect groundwater samples from the soil borings installed on the levee bottom. Any questions on that?

CO-CHAIR HAYES: When you refer to test pit, what's a test pit?

MR. PAULDING: A test pit will consist of a 4-foot-by-4-foot excavation and down to 4 feet deep. We'll do that to get a better idea of the geology, the soil material in the dredge pond, and to collect samples and to do some screening of the area for the radiological signature, so to speak, of the area. And it's just for thoroughness.

CO-CHAIR HAYES: Let me back up; I might have asked the last question there first. This sounds very fluffy. This is in the remedial investigation and you already have it written or developed? Is it in a work plan, and is this based on the conceptual model or the methodology that's already been applied to all the other dredge ponds? Where are these test pits going to be?

MR. PAULDING: The test pits, those are on later figures. We have all the locations. The proposed locations for the test pits and the boring locations will be in the following figures. But to answer your question, yes, the plan is developed based on the conceptual site model, and it follows the similar pattern for what was done at the previous dredge pond investigations that were done in 2000, 2001, and that were done as part of that western early transfer.

CO-CHAIR HAYES: Okay.

MR. PAULDING: So this piece of equipment here is called the scan plot; this is the radiological survey equipment that the team will be using. And it has four iodine scanners that they use to detect radiological emissions from the ground. And it will go over the surface. And the plan is to do essentially a 100 percent coverage of the dredge pond bottom and the berm looking for anything that would emit any kind of radiation that can be picked up. This measures Gamma radiation, so it would pick up what we typically see or what we're concerned about, like the radium-226, which is what we get from those buttons and the rope and the other items that have typically been found in the ponds.

CO-CHAIR HAYES: Two questions on that; how are you going to maneuver that on berms, berm edges, or just berm tops?

MR. PAULDING: Berm tops. So with the sides of those berms, we'd have to use handheld equipment for that.

CO-CHAIR HAYES: And will you be doing handheld equipment on the site?

MR. PAULDING: That is the plan, yes.

CO-CHAIR HAYES: And both on the handheld and on this, how deep can you go?

MR. PAULDING: Approximately four feet.

CO-CHAIR HAYES: Do you know where this technology was first used?

MR. PAULDING: It's been used at other Navy bases here in the Bay Area, including Alameda. And MACTEC has used this at other places across the country, and I think they've also had it tested out in Japan as a result of the Fukushima accident.

CO-CHAIR HAYES: Well, that was a bit of a trick question because, if I'm not mistaken, this technology first got used here at the DRMO scrap yard.

MR. PAULDING: I wasn't aware of that.

CO-CHAIR HAYES: The Navy didn't believe that it could detect radiological material deeper than eighteen inches, and they were going to walk away from the DRMO scrap yard. And this RAB and the City of Vallejo and the regulators all teamed up together and convinced the Navy that they could find the technology, and they did. And the first application that I know of was actually here.

MR. PAULDING: Okay. Excellent.

MS. NAITO: That was a trick question.

MR. PAULDING: What you see here on this next picture is a layout of the digital geophysical mapping. And what you have here are the berms, which are a darker purple hatching. Those areas are where we'll be doing this 100 percent DGM survey.

CO-CHAIR HAYES: What's that acronym?

MR. PAULDING: I'm sorry, the digital geophysical mapping. And the digital geophysical mapping uses a piece of equipment that can detect the metallic items in the ground, plus it also has a GPS, the global positioning system, so they can detect the actual location of those items that are identified, and then they can go back later to investigate them.

You also see around the outfall, the green circle there, we have a 300-foot radius around that area which we'll be investigating at 100 percent with the equipment. And then in the red dotted line areas we're going to investigate those areas for the dredge pond bottom. Here are the sample locations and the test pits. So you'll see the red squares with the black circle in the center. And you see blue aqua color triangles on the bottom, and the gold triangles with the black circle on the berms.

So we'll start with the test pits. The test pits were identified using a visual sampling plan which is a piece of software that does statistical sampling, and it laid out the number and location for the test pits 1 through 16 to get a statistical significant analysis of the dredge pond, at least the locations. And then the gold or yellow triangles on the levee, those were set up using the berm itself, which was broken up into 70 fifty-by-fifty grids. And we placed ten sampling locations inside of those grids on a random basis with the exception of the two that are located on either end of the outfall. And then we have five soil borings that will be in the pond bottom to fill in the locations that were selected by the visual sampling plan. And those locations will be driven to groundwater depth, and groundwater samples will be collected from those five locations. And then, finally, we have two borings in the dredge ditch on the southern end of the berm, and we'll collect soil samples there just to make sure that there's nothing different about the dredge ditch area from the rest of the pond. And then here, because we do suspect or we have reason to suspect that we could encounter different types of munitions items, we have developed exclusion zones for the work in the dredge pond. And we have a primary and two contingencies (green,

blue, and purple). So the primary is the green, and that's at 104 feet, that's the one, but you also have a handout in the back. So you got those, the three exclusion zones. I'll give you a chance to find it.

CO-CHAIR HAYES: You have to start handing out glasses with these small ones.

MR. PAULDING: Yeah, that one's tiny. So let's talk about the northern Marine Corps Firing Range investigation. This one's slightly simpler because we don't expect to find as many different things associated with the firing ranges that you would encounter in the dredge pond itself. This investigation is overlaid on top of the dredge pond investigation just because the firing ranges were within the dredge pond itself.

So we are setting up six grids. The grids are a six-by-four grid for the 1,000-yard target berm, and a twelve-by-six grid for the M367 target berm. And there's a figure so I can show you that. And those grids also include the firing lines adjacent to the M367 target berm. The firing lines associated with the 1,000-yard target berm are now under buildings and roads that have since been constructed. So here you can see the grid around the 1,000-yard target berm. That's a fifty-by-fifty foot grid, and we will collect soil samples at the nodes or where each of the lines cross. And then the M367 target berm, we'll collect samples. Those are 50 by 25 foot target grids, and we'll collect soil samples at the red points at the intersection of those lines.

So that's it for the planned investigation itself. And then for the RI report, we'll present the conceptual site model and the field investigations. We'll do a human health and an ecological risk assessment. We'll do a radiological risk assessment using a piece of software called RESRAD which stands for residual radioactive materials. There's a list of acronyms in the back of your presentation there. And then we also will do a munitions hazard assessment and recommendations for future activities. So, any questions?

CO-CHAIR HAYES: This wildlife exclusion silt fence, you want to talk about what you're intending here? I assume you suspect you have salt marsh harvest mice or potential out there?

MR. PAULDING: We definitely have a potential for salt marsh harvest mice. There is pickleweed in the area.

CO-CHAIR HAYES: So you'll be clear cutting that by hand and moving them.

MR. PAULDING: The method on how that will be done has not been finalized. That is something that we will have discussions with the different agencies about.

CO-CHAIR HAYES: Yeah.

MR. PAULDING: But we'll have to do something along those lines, yes.

CO-CHAIR HAYES: Cause that's a pretty large area too. Mr. Gemar of Weston Solutions, you might be able to answer this, what did you do for pond 3E on the western side of the Joy Survey Line? Did that ditch continue? What did you find at the outfall? Did you investigate pond 3E?

MR. GEMAR: We did, Myrna, on the west side.

CO-CHAIR HAYES: I don't remember, sorry.

MR. GEMAR: On the west side of the Joy Survey Line. But, on the top of my head, Myrna, I can't recall what all that entailed. It was probably the levee tops and interior just exactly like Reggie described it on the east side. I think we did that.

CO-CHAIR HAYES: Well, they have that outfall on the east, and you have the outfall on the west, and I was just wondering if the ditch continued. Maybe you know, Reginald?

MR. PAULDING: Let me see here. Well, I think you could see from the 1948 aerial photo where that ditch is, and it doesn't appear to continue on, or at least it wasn't active at the time. But where we have it identified it doesn't go beyond the line.

CO-CHAIR HAYES: Well, no, because that's your property boundary now.

MR. PAULDING: Right.

CO-CHAIR HAYES: But I'm just curious because I thought that the ditches didn't get addressed previously and that that was a concern, and that maybe you're just now tackling the ditch. So the ditches were being ignored in the decades before this. So just curious whether west of the Joy Survey Line any of the ditches were acknowledged and addressed or if you're breaking new ground? And if depending what you find there, whether it might be that the western early transfer or the City might have to go back and reopen the case on that rest of the ditch. Because it kind of looked from the 1948 photo like there might have been some rest of ditch that went down to the levee and then along towards the outfall. It kind of looked more like that to me. That's the ditch right there. This would be looking south so this would be along that eastern levee. So that photo was taken from this corner here looking this way. So it was just pond water?

MR. PAULDING: Yeah, it's just pond water.

CO-CHAIR HAYES: See how that outfall or the dredge or the ditch kind of looks like it goes down to the corner and then north? Or is that just the pond, the berm, the berm bottom?

MR. PAULDING: This could be the berm here.

CO-CHAIR HAYES: An excavation to raise the berm edge maybe?

MR. PAULDING: It's possible.

CO-CHAIR HAYES: Anything's possible, huh?

MR. PAULDING: Anything's possible.

MR. GEMAR: I think the only ditches I've ever seen, run east and west. I don't think I've ever seen a ditch do a ninety degree or anything like that. I think it's just always been out to the west.

CO-CHAIR HAYES: Where did that ditch go? What was it for, do you know?

MR. GEMAR: I think, Myrna, that back in the day, in the 1930s, the east levee was probably the shoreline essentially, and so instead of running a dredge pipe out, they were able to just discharge it into a depression. And so if there is any munitions type items, it would be most likely where they discharged into the ditch, similar to an outfall.

CO-CHAIR HAYES: Right.

MR. GEMAR: So it's unlikely that the water going down the ditch would have transported heavier items. So if they find anything, it should be right at that intersection or that corner.

CO-CHAIR HAYES: And so your conceptual model off the top of your head might say that the further you get down that ditch, the less likely you are you are to find anomalies.

MR. PAULDING: The less likely you are to find metallic items, yes.

CO-CHAIR HAYES: Okay.

CO-CHAIR LEAR: Thanks, Reggie. Hey, Reggie, can you address maybe the schedule quickly? When do you think you might be in the field?

MR. PAULDING: So currently, we're in the work plan development stage. We submitted the draft work plan in July of this year, and we expect agency comments sometime next week. And then we'll respond to those comments and submit the final work plan later this year. And the plan is to get in the field summer of 2013 to do the work, after the rainy season.

III. PRESENTATION: *Production Manufacturing Area/South Shore Area Munitions [PMA/SSA] Non-Time Critical Removal Action [NTCRA] Fieldwork Update*
Presentation by Mr. Dwight Gemar (Weston Solutions)

CO-CHAIR LEAR: Okay. Thanks. Our second presentation tonight is the Production Manufacturing Area, South Shore Area Munitions Non-time Critical Removal Action Field Work Update. And Dwight Gemar will be presenting. And we also have Ryan Wensink of Battelle here to answer any questions.

MR. GEMAR: Okay. Thanks, Janet. So the topic, as Janet indicated, is an update for the work that we're doing at the southeast portion of Mare Island known as the Production Manufacturing Area, PMA, and also the South Shore Area, SSA.

A brief summary or background. The munitions production area was used from the very early days of the shipyard. This munitions area, in the southeast portion, dates to the pre-Civil War era to the end of the Vietnam era. And the south shore was actually created from fill in the 1930s and 1940s. So that served as a storage and handling area in support of the munitions production facility from the 1930s to 1972. There were some emergency removals done for munitions that were encountered during installation of utilities in these areas in the 1980s and 1990s. The Navy subsequently performed a removal action. And then additional geophysical surveys were performed in the 2003 to 2006 era, and as part of that survey, a large number of metallic disturbances, called anomalies, were located, over 30,000.

So based on the large number of metallic subsurface items, the Navy proceeded with a non-time critical removal action which began this spring. The objective is to investigate a large percentage of those subsurface anomalies, to look for, primarily, munitions. The areas are basically subdivided into open areas, which include upland as well as near shore areas. And near shore can be both shoreline as well as mudflat areas. And also there's a number of buildings that are on piles that have crawl spaces, so those are also part of this investigation. In addition, because of the small potential for finding radiological items, we are also scanning these anomaly locations for elevated radiation levels that would indicate potential radiological items, and so that is also part of our process.

You might recall from previous presentations that because of a large number of anomalies, the areas were subdivided into what's called category A and category B. And there's an 11x17 in the back of the handout, I believe. But just as a refresher, the category A areas are these areas that are highlighted in red and, of course, most of these fall along the shoreline. And based on a review of the past emergency response actions and also looking at historical piers and those kind of things, we suspected that the majority of any munitions that might be encountered in these areas are primarily along the shorelines. So those are shown in red, and everything else is considered a category B area. And under the non-time critical removal action scope, 100 percent

of the geophysical anomalies in these category A areas are going to be investigated, and a minimum of 20 percent in the category B areas. If we do locate munitions items in the category B areas, then the scope requires us to step out a minimum of 25 feet just to make sure that there are no other munitions items in the immediate area. And this contract is being implemented actually by two separate contractors, which is a little unusual, Battelle and Weston. For the most part, Weston has been assigned the shoreline and mudflat areas, and Battelle has been assigned the upland and hillside grids. And so it's up to us to coordinate with each other and make sure that our UXO teams maintain the proper separation. And so far I think it's gone quite well actually.

So again, this slide shows this large map which is also at the back of your handout. And it's a little busy, but the main takeaway I think is that we started work in May of this year, and we originally thought we'd be wrapping it up in the mid-fall time frame. But it is taking a bit longer than we thought, but our current status is shown here. Over 13,000 of the 19,000+ assigned anomalies have been excavated, and 113 of our grids are complete. The completed grids are shown in blue. So all of the assigned anomalies within those grids shown in blue have been excavated and evaluated. The grids shown in green are in progress as of today. And then the grids shown in yellow have still to be started.

Also shown here is a number of the buildings that will be investigated underneath the buildings. So far, the results indicate that our conceptual site model is holding true very, very well. We have not uncovered any munitions or discarded military munitions items that had HE, high explosives, in the category B areas, everything we've found so far has been in category A. We have found some inert munitions debris items, what we call material designated as safe or MDAS in category B's areas, and of course we'll do step-outs and are doing step-outs in those locations. But again, for everything that we've found so far, it's been in category A. Fifty-six locations have produced discarded military munitions or DMM which, of course, is a very low percentage of the total. We have a much higher percentage of target locations, almost 1,500 that have produced these inert debris items, so quite a bit of munitions debris. And the good news is zero radiological items have been encountered to date.

And I will go through a series of other slides to describe what some of the challenges have been in the execution of this work that's causing this schedule to slip into probably the December to January time frame. Probably one of the largest problems so far is that because of the long history of the production manufacturing area especially, but also the south shore area, every excavation is practically an archeological exercise where you run into layers of previous items, either cultural debris or road material, asphalt material, in some case concrete debris. And because a lot of those items have a magnetic signature, we have to evaluate each layer one foot at a time as we scan for radiological items. And oftentimes we have to go down to our maximum depth of four feet, which is what our criteria requires. If we're not finding any munitions, we still are required to evaluate those items down to four feet. So it takes a fair amount of effort to go through that when you run into a lot of debris, which is pretty much what we're running into from a show and tell standpoint.

Some of you probably know that this is one of the tools of the trade. I mean this is a magnetometer, but this is what the UXO techs will use to help evaluate each of these. And these have different settings, you can set them a little bit low so it doesn't get quite as noisy when you're in an area with a lot of debris, or if it's onesie, twosie, they'll turn up the sensitivity and they'll pinpoint these items with these handheld devices. And originally when we did the

geophysical surveys we thought that we would run into a lot of what we thought would be no contacts because we were picking the threshold very low to try to find 20-millimeter projectiles which are quite small. But so far we have hardly had any no contacts. And no contacts basically means where you go to the location where you anticipate finding an item and you don't find an item, and that's called a no contact. We were concerned that we would run into a lot of no contacts because of the conservative manner in which the anomalies were picked, but that's not been the case. Wherever we dig, we find metal, and I think Battelle's experience has been the same as ours. So it takes a bit more time to evaluate all these items.

I will get into some more information on data gaps. There are some areas where, because of terrain or other obstacles, there was no previous digital geophysical mapping survey done, so we're going to go in with handheld instruments similar to this one, and also other metals detectors called Vallens and check those out. And I have a map later in the presentation to show you where those are.

One of the other challenges we've run into is we've encountered some items that are larger than what our initial assumptions were. In the production manufacturing area we've encountered a four-inch armor piercing round which increased our exclusion area a bit that we have to maintain for safety reasons. And we also encountered in the south shore, more significantly, a World War II era depth charge, which has up to 300 pounds of explosives. And so that immediately kicked us out of the range of items that we were expecting, and so we had to resubmit our explosive safety submission, and get approval to continue work in the south shore. So we were actually shut down in the south shore for a couple of weeks as we were requesting this increased safety arc. And I'll get into that a little bit more.

I have some maps that show these distances and what they impact in terms of the distance from our work areas. Also I'll get into some of the other operational restrictions, like the mudflat areas that primarily relate to Weston's grids. Of course we have to do those at low tide so we have to wait until the tide recedes, then go out there and do digs until the tide starts coming back, and then we have to get out of those areas. So there's some back and forth there. Also there's some nesting bird restrictions which were something that caused us to have to avoid certain areas earlier in the season. When we got started in the May, June time frame, it seemed like the kill deer like to build nests out by our work area, so we had to avoid those areas. There's also some nesting birds on the Pier 34, as you all probably recall, mostly osprey nests, and I think they've chased out the herons. But we did have a full-time biologist that goes with our crew and observes for any impacts to nesting birds. Also we have the usual avoidance criteria for salt marsh harvest mice consisting of hand cutting vegetation, putting up an exclusionary silt fence, and if we have to move into an area with mechanized equipment, we have to do these things ahead of time. So it all tends to create a fair amount of effort to get through these excavations.

And again, this shows a historic map of the production manufacturing area and the present day photo. And you can see from the bottom photo there was a lot of rail spurs that went throughout all these areas. And some of those rails were pulled, but a lot of railroad spikes were left behind, and other cultural debris items, the metallic clips for holding the rails to the ties.

And underneath the buildings, as I'll show in a picture in a moment, Battelle has been having some fun with clearing buildings that have a lot of large nails that were discarded when those buildings were constructed. So just a lot of infrastructure, a lot of historical items. I don't think the Navy really took anything out, they just built on top of it.

And here's an example of some of that cultural debris that Battelle has been encountering below some of these buildings' crawl spaces. There are 15 that they're required to excavate, so far three have been completed. And it's a slow go. As you can see on the right-hand side, this is probably one of the better headspace shots. In some cases these guys have to literally get down on their hands and knees to work underneath the buildings and recover these items and check the subsurface. And they have to do digs to pick out anything that's buried, but for the most part I would imagine most of this is very close to the surface then.

CO-CHAIR HAYES: So once you're getting that surface metallic debris, you're not finding it deeper and deeper, you're not having to dig?

MR. WENSINK: We're going to two feet.

CO-CHAIR HAYES: To two feet?

MR. WENSINK: And to two feet of the area. These buildings have concrete footers and they all make, essentially, a grid. And so we're clearing these individual bays at a time, and generally when you clear the two-foot interval that we're looking at you get a nice clean area. And most of it, like Dwight said, is very close to the surface.

MR. GEMAR: And, of course, there's, along the way, a few unusual items encountered. This happens to be from one of the Battelle grids. But they encountered some drums that looked like they were placed fairly neatly and then buried with open tops. Not sure why they were placed there, but the soil was analyzed by Battelle and, as indicated here the drums were either empty or very close to being empty because they didn't show any significant contamination in the soil within these drums, and so they were removed as inert scrap. And similarly, in one of the Weston grids we uncovered an underground tank. You can see the small access hole there that was exposed by removing that access plate. It's kind of an unusual tank. It's about 30 feet long and only 3 feet in diameter. It's connected by a pipe to a vertical dry well. There is some standing water in the tank, which we analyzed, and again it looks like it's basically rainwater or groundwater that has seeped into the tank. We're not really sure yet what the purpose of this tank was. We've looked on some historical maps, and there are a couple of buildings that used to be here, but at least so far I haven't found any information on what those buildings were. So I don't know if this tank had any purpose associated with those removed buildings or not. So this one still is a little bit of a mystery. But whatever was inside the tank, it was either removed and/or it's now basically rainwater.

CO-CHAIR HAYES: Maybe an early rainwater collection system. I'm making that up, but that's kind of the way they make them now, with one style to be long.

MR. GEMAR: Long and skinny tank.

CO-CHAIR HAYES: Yeah.

MR. GEMAR: But why that wasn't yanked before, how that got missed, I'm not real sure.

MR. KARR: What was the depth, Dwight?

MR. GEMAR: Pretty shallow, Jerry. You can see it's only a couple of feet deep at the top. So with a magnetometer like this, you could probably trip over it like that. So I'm surprised it didn't get yanked well before we came across it. But the world's mysteries.

CO-CHAIR HAYES: Well, there have been some of those surprises out there on the western magazine too.

MR. GEMAR: So, as I mentioned, there are some areas along the shoreline that were previously inaccessible to these carts that were used to do the digital geophysical maps. And so these are going to be investigated with handheld instruments. Again, you can see this better on your handout, and on this map here it's a little hard to see. I guess this light blue is the data gap areas. But for the most part the blue areas are data gaps within the category sectors, and then the green shaded areas are in the category B sectors. And again, this is mostly along the shoreline where there's either trees or riprap or something that was in the way, and we're going to be investigating those areas. There's also some data gaps in the upland areas and those will be investigated as well. On the south shore, again, it's mostly along the shoreline, a few little spots inland, but again it's mostly the shoreline.

Another challenge, which I alluded to earlier, was the exclusion zone. This has to be expanded. Well, first of all, an exclusion zone is just a safety buffer area that we don't allow personnel who are not involved in the munitions clearance work to be within an exclusion zone. And it's based on the type of expected munitions that we believe we would encounter. And typically the larger the item, the larger the exclusion zone. And we have to go through the Navy ordnance safety and security activity, NOSSA, to get our work plans approved including the calculations of the exclusion zone. As noted here, we started out with an exclusion zone of 232 feet. That was based on the munitions that we expected to encounter. In July, we ran across a four-inch armor-piercing round in the PMA, the production manufacturing area, which increased the exclusion zone slightly to 330 feet. However, in August during some work along the mudflats, we encountered a World War II depth charge at the base of the riprap along the south shore. And because of the large quantity of explosives, that immediately required us to extend work along the shoreline safety arc to an 800-foot arc. Yes, Gil.

MR. HOLLINGSWORTH: So you're going along and up to July 25th you had the 232 feet, then boom, you find this one thing and you have to go to 330 feet. Does that establish it as 330 feet for all your future work, or is it just while you're digging that one item up?

MR. GEMAR: That's for all future work.

MR. HOLLINGSWORTH: All the way into January?

MR. GEMAR: Going forward, correct. So now we have a new expected maximum munitions item that we didn't have before, so yes.

MR. HOLLINGSWORTH: All right.

MR. GEMAR: So here you can see the armor-piercing round on the left, and on the right the depth charge. By the way, because of the large quantity of explosives, normally when we recover explosives items on Mare Island we take them out to an area at the southwest corner, which is designated for thermal detonation, but this item is much larger from a net explosive weight than we can handle. We're allowed to handle up to 25 pounds of net explosive weight in terms of disposal on Mare Island, and typically we even limit it to about five pounds of net explosive weight just to keep the sound down, because we don't want to make people angry or miss their putt at the golf course. But for this item the Navy contacted Fallon Naval Air Station in Nevada, and they actually came and brought this item back to their range, because they have thousands of acres, and they did detonate this item. And it didn't go high order, but it went low order, and then

it burned for quite a while, so they were able to determine that it did , in fact, contain explosives. We were thinking it might be inert, but no, it definitely had explosives.

So this is a little bit busy, but this chart shows the primary safety arc based on the current exclusion zone of 330 feet. And that's in the hatched portion. Now, this exclusion zone is based on where the crews are working only. So this shows everywhere you could possibly work at the production manufacturing area that could that would extend out 330 feet. In reality, if you're working at the north end of the production manufacturing area, you would only be impacting 330 feet within your work area. Similarly, if you're down at the south end you'd only be impacting that portion. So this is basically just a worst case, covers everything no matter where you are in the production manufacturing area.

Now, when we found the depth charge we went back and we got our new arc for the south shore, but we also got some new arcs established for the production manufacturing area. And we established some contingency munitions items, the MGF means munitions with the greatest fragmentation distance. So basically that's the worst item that you anticipate to encounter. But typically, in this case, we've added contingency items. So, for example, the 330-foot is based on the four-inch armor-piercing round. The contingency number two is based on a 7.2-inch mousetrap rocket, which is a later version of a depth charge. All the way up to the contingency three, which is if we found a depth charge, we would go to an 800-foot arc. Again, we expect that if we did find something like that, it would only be along the shoreline, so you would measure 800 feet from the shoreline and impose that as your safety arc. Similarly, at the south shore you can see the impacts here, the light shaded area is the preserve, and then the golf course is inland of that. So you can see that obviously when we impose the 800 foot arc, that would encompass a good portion of the preserve and even some of the intermediate arcs encompass part of that preserve area. This is for upland areas. We were able to get the approval to split the south shore into an upland and a shoreline area. So in this case, when we're working in the upland areas, because we haven't encountered anything like a depth charge in the upland areas, we can still use that yellow hatched area as our exclusion zone. So we haven't had to expand beyond that yellow hatched area. In the shoreline, we just have one exclusion zone now because we found a depth charge. So now we have to, as I indicated with Gil there, now we have to impose that 800 foot arc anytime we work in the shoreline, because now we have to anticipate that we could find another depth charge. So now we have to impose this 800 foot arc whenever we're working on the shoreline or in the mudflats.

MR. HOLLINGSWORTH: And where did you find the depth charge?

MR. GEMAR: If I remember right, Gil, I think it was right in this area.

MR. HOLLINGSWORTH: Oh, okay.

MR. GEMAR: And I mentioned one of the other challenges, which is mostly time consuming is avoidance measures to the salt marsh harvest mouse. We do have to take certain precautions when we're working either within 50 feet of salt marsh harvest mouse habitat or in the habitat itself, and so that includes, of course, a good part of the Weston grid areas. And if we do want to or need to bring an excavator into those habitat areas, we have to cut the vegetation, and typically then we have to install a silt fence on the outboard side of that area before we can bring in an excavator. We also have a full-time biologist that helps observe the work, and also observes for us any salt marsh harvest mice or other birds of interest such as the California Clapper Rail. It

would also be an issue because we'd have to stop work. So far we have not observed rodents in our area or certainly the Clapper Rail. Yes, Myrna.

CO-CHAIR HAYES: One of my concerns about this project regarding ground nesters and also tree nesting birds and, of course, pray to God that your project doesn't go -- or whoever you pray to around here, it's a different part of the planet here -- that this doesn't go into next spring. But I've continued to express my concern to the Navy, and I will do it here publicly again, that while there may not be nesting birds now on the ground or in the trees, under the houses, the Navy did mow, and I've never seen any grids or any biological analysis for the mowing that was done in these buffer areas, in the housing area, and in the production manufacturing area, as far as I know long before you had a biologist onsite. And this has been going on for several years and may have contributed to the failure of nests that were made by great blue herons in the tree areas of these buffer zone mowings that were aggressively done during nesting and just prior to nesting. So that now a great blue heron rookery that has existed as documented, at least anecdotally to have existed 84 years ago by two women who grew up there, are gone. Sure, Mother Nature had some part to play; but I'm very, very concerned that the Navy had a part to play in this as well.

And then that Audubon Canyon Ranch, who has been orchestrating the great blue heron nesting observation and documentation scientific study for 30, 35 years, has also not been allowed to get into this property on the regular basis that they did. So you might say, oh well, water under the bridge, birds gone, whatever, too bad. And we might be interested to see how osprey seem to not be impacted, and are really taking over, but I've been very troubled by this. And I think that's something that should have come to the Restoration Advisory Board. It should have been addressed prior to this project. And I'm very troubled by this.

I don't know if it was one hand not knowing what the other was doing, or if there was just confusion, or it seemed simpler to just ignore ground nesters and that colony. I don't know what happened, but it's very disappointing. It's very troubling, as we see on the preserve side of the fence the tremendous resurgence of nature. It's troubling that that issue was not addressed. So I will go on record again as urging the Navy to come to the community and consider using goats or goats and sheep as you have in the past in the Bay Area and is done currently on Lennar properties, for management in those sensitive areas. Yeah, that costs a lot of money. Well, tell me that your mowers coming in over and over again don't cost a lot of money too. But if you impacted nesting birds, you got a problem. And by us the community, as well as the scientific community. not being able to have good solid access to both cultural landscapes and the natural resource areas for documentation without seeing Navy BRAC putting resources into monitoring whether it's natural or historical properties, cultural landscapes, without seeing the monitoring going on, then we are observing what appears to be failures due to poor management and not well-thought-out management. So it would be really great if, while the Navy still retains the property, it could get onboard early. And again, I don't doubt that you have a biologist and I'm sure he's doing a great job. I actually met him maybe twenty years ago, and he's very interested in the property, but I'm talking about prior and going forward.

MR. GEMAR: Okay. And a couple of things that have been done again to try to move things along so that we can get wrapped up before the next nesting season is adding some additional personnel to try to move things along. And I think Battelle has brought in an extra team for doing the below ground buildings so that they don't impact their open area excavations. And, of course, our folks on the Weston side are very focused on trying to get through these areas as rapidly as

we can while still obviously maintaining our compliance with all the various requirements to get through these areas that have a lot of cultural debris.

CO-CHAIR LEAR: Dwight, could you talk a little bit about how many crews you actually have on site and separation distances briefly?

MR. GEMAR: Well, I know on the Weston side we have three separate teams, and they have inter team distances that are less than the exclusion zone areas that I mentioned. I think the inter team distances range from about 80 feet to about 200 feet; I'm not exactly sure, but in that range. So, basically they can work sometimes in a side-by-side grid as long as they're maintaining that distance. But oftentimes they'll be working in grids where there will be at least one grid separation between the teams. Ryan can you speak to your company?

MR. WENSINK: Our setup is very similar. We have three big teams onsite; two of them are dedicated to open area digging, and one of them is dedicated to the under building investigation. But we coordinate our dig teams internally. Battelle maintains our onsite personnel and coordinates with Weston, and Weston vice-versa to make sure that we're all keeping those distances that are required by the exclusion safety zone.

MR. GEMAR: So again, just to wrap it up. The majority of the grids have been investigated with the known anomalies. We are actively working on 22. We have eight remaining to start. So a little over 6,000 digs still to do. But crews are diligently working away at that inventory. Twelve buildings still need to be cleared from the crawl space areas. And then as we wrap up the assigned anomaly location work, we'll be then doing the data gap areas, both in the production manufacturing area and the south shore area. So, it looks like, based on the current projections, we should finish with the anomaly digs by, I would say, early December, and then we're thinking about another month to complete the data gap work. And so probably more like mid-January at this point is when we anticipate we'll be wrapped up. And I imagine Battelle will be on a similar or maybe a slightly sooner track.

CO-CHAIR HAYES: On your data gaps, are you just collecting data or are you actually going to do digs at the same time?

MR. GEMAR: Yeah, we are definitely going to flag it, Myrna, and excavate those. So the timing will, obviously, depend on how many anomalies we detect. And so the more anomalies we detect, the slower it will go just because there will be more digs. Any other feedback or questions?

CO-CHAIR HAYES: Well, I know that for several people in the room I have been a tremendous nuisance to you, and good for me, because I think this presentation tonight, which I requested, is the kind of presentation that we definitely should have had earlier than later. I think it probably would have resolved a lot of very upset and angry e-mails and phone calls between myself and everybody from regulators to on-the-ground staff to the Navy. And I really want to thank you for a really well-put-together, very compelling presentation, and a really exciting project that I wish the Navy was willing to invest some really great PR resources in, because I think there's not very many first naval ammunition depots in the Pacific. And I've written a bit wondering why this project isn't getting more attention just in a historical and public relations kind of public education opportunity kind of way. That remains a mystery and it certainly wasn't answered in this presentation, we may never know because the Navy may not be forthcoming with that information. But I think it's unfortunate, as I have written in correspondence, that we do have to

travel seven and a half hours to see the Navy's closest ammunition museum at Hawthorne, Nevada which is an active Navy ammunition depot, when we could have a facility operating right now, real time showing this work and making sure that this community and the Bay Area does not forget, or visitors do not forget or at least know about the cleanup.

This is what the whole purpose of the California regulatory framework is for munitions, is the Tierrasanta experience. And so everything we learned at Tierrasanta about why it occurred, we should be applying here. So you think I'm foolish, you think I'm stupid, you think that you're weary of me talking, you wish that Neal Siler was giving his presentation, and you wish you were getting cake and all that. The fact is that someone has to go on the record as caring about this historical site, and making sure that the public is aware of this site and its potential risk in perpetuity. We can't hide that under a building or under the rug or wherever it is you want to hide things. So why not make it glitzy? Why not make it interesting? Dwight has a real knack for doing that. You guys put together a really great presentation, Ryan. I'm excited about it. I'm the person, along with a handful of my really great volunteers, but mostly me, who's doing your public information right now.

And we might have 100, we might have 200, we might have 80, 20, 70 people a day who come to the Mare Island Shoreline Heritage Preserve. They come into the visitor's center and the first question asked, and you've heard me say this before, is, "Have you ever been here? Do you know where you are?" Well, I'd say 75 percent of the people who walk through the door do not know where they are. "You're on the Navy's old ammunition depot in the Pacific. You are standing in a 1984 built bomb storage magazine. You see these numbers and lettering systems, you see the stripes on the wall and the floor, that is to help with the custody record. What's going on across the fence is happening in real time right now, here's materials, this is what's happening. Here's our little homemade display with our yard sale items. Because while the Navy was so great, and you guys were so wonderful to select some cultural items from the digs, we still do not actually have any real material to convince anybody that this is actually an ammunition depot and that there's history here, and there's also some potential safety issues. Maybe about 25 to 30 percent of people who come are looking for a fishing spot. With the name Shoreline Heritage Preserve, they suspect that you could go to the shoreline and they have to be somewhat talked out of that. And there's a certain percentage, I'd say maybe five percent, who are really geared up for coming back with metal detectors.

So I'm just a person. I've taken a few classes given by the Army and the Navy, sponsored by the regulators in some cases, but I'm not the expert, you guys are. We need your help. This isn't something to hide, this isn't something to be in San Diego hoping there's nothing bad that happens. Let's get it out there while you're doing it real time and have some exciting kind of talk about it, and engage people. I've asked for video, and I guess we're just too old-fashioned around here. I don't know. Maybe I can climb up on a building with the copper thieves and take some video of you working? Would that be okay? Anyway, I'm tired of that, I'm really tired of that. Come on, help me with some really great displays, help me tell the story better, and let's protect the public in perpetuity. And let's get them excited about it. It's part of our history here.

CO-CHAIR LEAR: I know that it's not soon enough for you, but I will go on record as saying that when the final remedy is selected for the PMA south shore area, there will be a UXO education portion to that remedy. And when we get to that point we will have funding to help in a lot more active way. I know that's not soon enough, but that is what I'm committing to.

CO-CHAIR HAYES: Well, it's not. In the meantime I'll make stuff up and we'll see who's right. I'm trying to do the best I can with the tools I have. I don't think it's right. I don't think it's fair that you've given materials to other museums who are not doing that work. I don't know why you can't retrieve those items and deliver them directly to our facility. You could set up another building and help us put a display together, and it wouldn't hurt you to do that, whether it has anything to do with the remedy or not. The ultimate remedy that is correct could be 20, 30, 40 years from now. Because I noticed in our report about the preserve formation to the city council, it says in 2007 we expect transfer in 2012. Now, it's 2017 and the clock is ticking. So the idea that, oh, well, somewhere down the line we'll throw something at you and it will be some pictures we took, a few slides, and all the scrap is going to be up at Alco [Metal & Iron Company facility] and it's all going to be melted down into gold bullion or something. That's stupid. And it's not right, and it harms the public because they don't get to experience for real when they're actually on the property, and they don't understand what the Navy means. That's like telling a kid, hey, you can't have an ice cream cone because I'm putting that five cents, like it used to cost for our ice cream cones, putting it away for your college education. Somewhere along the line, you have to give kids some ice cream. You're a parent, you know that. Now I'm not talking to you, Janet, but I'm talking to you as the Navy. This is not going to fly. And I'll continue to flap my wings about it, that's just the way it is.

IV. PRESENTATION: *Remediation Process Update, Installation Restoration Program Site 15, IA-C1*

Presentation by Mr. Neal Siler (Lennar Mare Island)

CO-CHAIR LEAR: Okay. So our third presentation tonight is Remediation Progress Update for the Installation Restoration Program Site 15 presented by Neal Siler.

MR. SILER: Okay. Thank you, Janet. Well, Installation Restoration Program Site 15 is one that we've talked about at the Mare Island Restoration Advisory Board meeting numerous times. The most recent time we talked about it was in December 2010. At that time we presented what the regulatory agency approved remedy was. What I'm going to talk to you about now is not basically the implementation of that remedy, but where we are in the progress of remediation at the site, focusing on a chlorinated volatile organic compound plume that is emanating from the facility. And how I'm going to do that is I'm going to give you some background about Installation Restoration Program Site 15. I'm going to talk about the approved remedy that was implemented, give you an update, a discussion of the remediation progress of the site, talk about some conclusions and the path forward, and then take any questions that you would have.

So Installation Restoration Program Site 15 is located in the southeastern portion of Investigation Area C-1 which is the northeastern most investigation area in the eastern early transfer parcel. The site is a waterfront industrial property covering approximately an area of four acres. There are a number of facilities that dominate the site, and those buildings include Building 273, which you can see labeled here on this slide, and on the aerial photograph it's this building right here. That building was constructed in 1921. It was used as an optical and electrical shop, and in the 1960s it was converted to warehouse and office space. The other building is Building 101 which is this building right here. This building was constructed in 1899. It was used as a dip tank cleaning facility. There were seven 1,500-gallon dip tanks in there that contained acids, some cleaning solutions, Stoddard solvents, and distilled water.

Now, the main facility we want to focus on is this facility right back here, Building 225. And this is Building 225 right here. And this building housed the chromic acid dip tanks. And there were two underground storage tanks, UST 225 and UST 225B. UST 225, underground storage tank 225 was a 3,500-gallon chromic acid dip tank. UST 225B was a chromic acid overflow tank that was located just outside the facility. These tanks were taken out of service – UST 225 was taken out of service in 1988, and it was removed and remediated in 1994, 1995. Underground storage tank 225B was taken out of service in 1984, and it was remediated in 1987.

So the source of the chlorinated solvent plume that we're seeing is this building right here, this facility. There were also some tanks in there that contained tetrachloroethylene, which is also known as PCE. So the main constituents of concern at this facility were metals, cadmium, lead, and hexavalent chromium and the chlorinated volatile organic compound plume. Investigations and remediations at the site have been going on for a long time. It started in 1983, and here we are in 2012 and remediation is still being implemented at this site and on into the future.

So the main antagonist in this drama is this chlorinated solvent plume that you see here. And I'm going to give this plume a name, I'm going to call him Cassius for right now. And he's comprised of a number of different zones. This outer zone right here is the diluted chlorinated ethene plume. And actually the next two slides will help explain exactly how we define this plume as we go forward. This dark purple area is the hot spot area. This area outside of the hot spot area is the core of the plume. And then this is the near shore portion of the plume. Now Cassius here, he's been living large, he is very large, he's --

CO-CHAIR HAYES: A drinking buddy of yours.

MR. SILER: That's right, you got it. He's flabby, he's large. You could say he's corpulent, but we're going to put him on a diet.

CO-CHAIR HAYES: Of cheese whey.

MR. SILER: You got it.

CO-CHAIR HAYES: That's a diet? Wow.

MR. SILER: I'm going to show you the effects of that diet. Now, I mentioned that the way that we had defined the plume was the dilute plume, we have the hot spot, we have the plume core, we have the near shore area. This slide tells you how we define that, and on the next slide we talk about TCLE as VC, that's total chlorinated ethenes as vinyl chloride. And the next slide shows you how that's calculated. So that's how the plume is defined.

So the regulatory agency-approved remedy consisted of a number of different things. We excavated metals above screening levels outside of Building 225 and in the area. We're going to keep the foundation and the asphalt around the building as a cap after we restored that. We actually installed a permeable reactive barrier that is comprised of zero-valent iron in the PRB trench. In those near shore and the plume core and hot spot areas, we're doing a number of enhanced reductive dechlorination injections, and those are continuing as we move along. We're measuring the progress of the remediation by doing groundwater monitoring. We do that on a quarterly basis right now, and we're also looking at monitored natural attenuation. Eventually this site will have a land use covenant on it. You will have to maintain the integrity of the cap. You will also have to maintain the integrity of the permeable reactive barrier, and keep the monitoring well network in place going forward. And included in that would be an operation and

maintenance plan and a operation and maintenance agreement with the Department of Toxic Substances Control.

CO-CHAIR HAYES: Who will be responsible for operating that plan?

MR. SILER: That plan in the interim will be Lennar Mare Island doing that, but as the land use covenants are an item that go along with the deed, it will be passed down to the subsequent property owners.

So just give you an idea of the plan view of the remedy. This is the location of the permeable reactive barrier. And then when you measure in the Mare Island factor, there's always something that's going to go wrong. As we were digging this, wouldn't you know it, there were about two 20-by-20 foot concrete blocks that were right in the way of the permeable reactor barrier. So we built the barrier right up into those concrete blocks, you can see it there. And if you look at this in cross-sectional view, this is the plume core and hot spot area. There's the permeable reactive barrier, and then this is the near shore zone right there. And we placed this permeable reactive barrier right at the interface between the near shore zone and the plume core, it's basically right there. So I mentioned part of this remediation was doing these injections at the site. For the first injection we did iron augmentation, and put about 37,000 pounds of zero-valent iron through 64 wells and borings. We injected cheese whey, about 15,000 pounds in 64 wells and borings. And we also added some nutrients, stimulants, stabilizers, and tracers, and those are sodium hexametaphosphate. And for those of you that were here last time when I did this presentation, what's the brand name for sodium hexametaphosphate? See, nobody listens to me. What is it?

MS. NAITO: Calgon.

MR. SILER: You got it.

CO-CHAIR HAYES: I was trying to read the picture, the little thing in the picture. Kraft is your whey.

MR. SILER: That's right, you'll see that.

CO-CHAIR HAYES: Yeah, I read that.

MR. SILER: So we have sodium carbonate maintained as a neutral pH; we have Accelerite, which are nutrients; yeast extract; vitamin B12; and the fluorescein dye as a tracer. And we put in about 50,000 gallons of those amendments during the first injection. Now, since we did the first injection which was about February, March of 2011, we've done two other injection events. One in the fourth quarter of 2011, around October to November, and then we just did one last week. So we did one on the 19th, 20th, and 21st of September. So the second injection event you can see we put in about 8,000 pounds of cheese whey and 29,000 gallons of amendments. This third injection event that we just implemented about 5,700 pounds of cheese whey and about 26,000 gallons of amendments were used.

So when we see our friend Cassius, this material to make him lose weight and get smaller, you can see this is the configuration of the plume after the second injection event. You can see Cassius here, he's starting to shape up a little bit. He's got a little bit of that hourglass figure, he's got it back. His plume core doesn't look so good anymore, you know. And, of course, in the Mare Island factor, instead of going right for this portion, the main portion of the PRB wall, what does it do? It goes right for the northernmost concrete block. So it never fails. You can see here the near shore area. You can see what that area looks like. And that area is looking a little bit

smaller. So if you look at the areas in the red here, those are the places where we extracted. The wells that are colored blue, those are the areas that we actually injected material.

So now, as we started to get ready for the third injection event -- and this right here includes data from the second 2012 groundwater monitoring event that occurred in June. You can see that Cassius, he's starting to get that lean and hungry look that he's so famous for that Shakespeare wrote about. So you can see he's getting a Wasp waist now, getting really down. There's a little bit of dismemberment up here, so we've got that up there. You can see that this near shore area is getting much smaller; in fact, it used to come all the way over here, these wells right in here are starting to clean up. And you can see in here he's starting to pinch in quite a bit. And actually, if you look at the data, you can probably move this dilute plume forward here because a number of these wells right in here are starting to clean up also. So these are some photographs I took during the third injection event. You can see how they've got everything laid out here injecting the materials into the wells as they're moving forward. And then here I am, I'm making the soilant green up here, and here's everything that goes into the soilant green down here. There's the cheese whey. There's sodium.

CO-CHAIR HAYES: What's the soda ash for? You don't mention that.

MR. SILER: Soda ash, that's just something that helps stabilize that.

CO-CHAIR HAYES: Oh, okay. I always wondered what the inside of those looked like.

MR. SILER: Okay. So remediation area status and changes. Now, I do have data from the third quarter 2012 event, I don't have it validated yet, but I'm going to show you how things have changed since we first started looking at this area back in February of 2011. As you can see this area up in here, the near shore area, this area is cleaning up. The near shore plume itself is actually contracting both in width and in length. You saw this main core of the area right here that was a much larger blob. It's starting to really kind of come together here. It's actually becoming more dilute. You can see it's getting smaller, both from the south and from the north. You notice that the dilute plume actually went all the way out here the first with that, so it's actually getting smaller all the time. And it's actually coming shorter in length as we come this way.

So just to give you an idea of what the actual data shows you. This well right here is actually located right down here. And you can see where it looks like it's going up in total chlorinated ethene concentration, but that's actually a good thing, because what's happening is that the main product that we were looking at, which is the source, which is the perchloroethylene. This component right here is mainly cis-1,2 dichloroethylene and vinyl chloride. And that's what we wanted this to break down to, we wanted to strip the chlorines off to get it to break down. And that's exactly what it's doing right here.

This well right here which is MW 107, this is a little bit of an anomalous one. And that's this main right in the middle of the hot spot here. You can see the data listed right here. And it looks like it's going up in concentration quite a bit. In fact, if you look at the total VOCs from February of 2011 to August of 2012, it's gone from 392,000 micrograms per liter to 735,000 micrograms per liter. But if you normalize this to the chlorinated ethene, this actually is composed, again, of those daughter products.

Now, there is something anomalous going on here in the fact that for some reason the perchloroethylene, which is the product that we think is the origin of all these chlorinated

solvents, it's going up too, and we're not exactly sure why that's happening. So this is a well we really want to keep taking a look at. But if you look at all the other wells here, almost all of these are coming down as you go forward here.

So conclusions. The remedy is working. The hot spot area, the plume is shrinking in both width and length. The total CVOC concentrations are decreasing, but in some of the wells, certain locations they are increasing, but degradation is occurring. And we know that because we're seeing in that one well, MW 107, over 90 percent of the total chlorinated VOCs that we're seeing are daughter products and not the main product. In the near shore area, again the plume is shrinking in width and in length. The total CVOC concentrations are decreasing, and degradation is occurring. So what we're going to do is we're going to continue monitoring. We're going to take a look at that data. We're going to interpret that data, and we'll do additional ERD injections in the future based on that data. So that ends my presentation. If anybody has any questions I'd be glad to answer them.

CO-CHAIR HAYES: So Neal, potentially how many more injections, how much longer will you be working on this site?

MR. SILER: And that's hard to say, it's really what the data is going to tell us. The one anomalous area, I think if you look at what we've done and take a look at some of these concentrations coming down, look at some of these like P31, we've come down from 35,000 to six.

CO-CHAIR HAYES: Yeah.

MR. SILER: 52,000 to 110, 16,000 to 150. The problem is, as you start moving down, it's like weight loss. You lose a lot at first, and then you have this asymptotic curve, and as you get to the end, it starts to flatten out. So to tell you exactly how long it's going to take, you're probably going to be out there for at least a year, and it could be as much as two to three years more. But we're going to have to look at the data to give us an idea of what that's going to be.

MR. RASMUSSEN: Neal, a question about that one anomalous well in the hot spot area. Do you have any thoughts about what the prognosis is for that?

MR. SILER: Well, we did a little bit of a different thing in that well. And let me go back to the slide right here. If you look at the data, the whole idea is to get carbon substrate in here. And what happens, for lack of a better way to describe this, the microorganisms that we're stimulating to break this down biotically is that they eat the carbon and they breathe its chlorinated solvents. That's the simplistic way of looking at this. But this is kind of weird because it looks like the main product that we're worried about, the perchloroethylene is going up. So what we traditionally did at this well is extract from this well. But what we did this time, we didn't extract from this well, you can see it's blue here, we actually injected in this well to see if we could get more stimulation of the microorganisms here to see if we could break it down. Now, we may have some additional source there, we're going to have to look at the data to tell us exactly how it reacts to this different sort of process that we're applying to the well right now.

MR. RASMUSSEN: What is the nature of the sources of this material? Is this just like fluid that's pooled?

MR. SILER: It can be. And what's that's called is dense non-aqueous phase liquid, that's what this is called DNAPL for short, and you could have some DNAPL there that we're seeing. But it's really odd because if you look at some of these wells back in here, these wells are cleaning up.

So maybe we have a slug of something moving through. Because we think we've beheaded it on this side right here, but we could have something moving through, but right now I'm not sure exactly.

MS. TYGIELSKI: I was thinking migration.

MR. SILER: Going on right there, yeah, you have a little slug coming through or something, and you may have some DNAPL coming through, but we have to look at the data as we go forward to see is it breaking down or not. We know it's breaking down, it's weird that PERC is going up.

MR. RASMUSSEN: Is there any concern at all that there might be another tank or something under there?

MR. SILER: Not under here. We've never found out anything here. This is the edge of Building 273 right here. Anything's possible at this facility. The problem is that if you look at one of the chlorinated solvent plumes in the Santa Clara Valley, they're thousands of feet long to miles long, and from here to here it's only about 150 feet. I mean some of these wells are only about ten feet apart. By drilling in here with all those wells not only did we make Swiss cheese, we made Harvati in here. And it's hard to believe we missed something by having that density of wells.

CO-CHAIR HAYES: I recall maybe a dozen years ago attending a Marine Corps Navy Restoration Advisory Board conference in Denver, and also later in Salt Lake City, where this whole idea was actually, at one point, I think now you have to get some type of a special dispensation from the DOD to even do a pump and treat. This was kind of the new technology, the new direction you were going. And you can definitely see that it is very effective to leave it in situ and not wait around necessarily for natural attenuation, but that maybe over time it might have attenuated. But one of the issues that I know came up in the presentations we were given is this very thing, that you get to a certain point where you just plateau, or you have a different type of strata, or you have different material that's making it seem like it's really working fast, and then all of the sudden you're stuck. And pump and treat had that problem too. Is there something about this characteristic of this soil where this plume is that's quite different or where that well is that's quite different from the rest?

MR. SILER: No, I don't think there's anything that looks really different from that. But what happens in these types of scenarios, especially when you have them start breaking down, is that the PCE to the TCE to the DCE to the vinyl chloride is an anaerobic biotic process. The problem is that once you get to the vinyl chloride, the vinyl chloride gets to be toxic to the anaerobic bacteria. So that's what kind of stalls it out. And usually what you want to see, and we don't have that here, is you want to see this nice train from PCE as you go from the head to the toe of the plume, PCE to TCE to DCE to vinyl chloride to ethene to ethane. So that looks like you're seeing it break down as it goes down-gradient. And as it goes down-gradient, you're going from an anaerobic zone to an aerobic zone. But the trouble is you have all of this going on at one time here. So, you're right, it can stall out sometimes, but the whole idea is to give it everything we can to get it to move along. Now, the good thing is because of the PRB walls here, and you can see we are cleaning up this near shore plume, even if it's going toward this concrete block, it's not getting through. All of the wells along the PRB wall are basically clean. And so you can look right down here and look at these wells right down here and up here. This is all cleaning up, and this is all we have left. So it's cleaning up and we're making it so it can't get into the strait anymore.

CO-CHAIR HAYES: And in the direction of groundwater too.

MR. SILER: Yeah, the direction of groundwater flow is this way toward the strait.

CO-CHAIR HAYES: But also north, isn't it, usually?

MR. SILER: It's kind of like northeast. It's northeast toward the strait right here.

MR. HOLLINGSWORTH: Why was this solution picked over dig and haul?

MR. SILER: Well, the problem is that the dig and haul, the source has actually been taken out and the source is by Building 225. So we took it out in 1984, 1987 and 1988 and 1995, and in 2003 CH2M Hill did some additional work. We removed the source of the chlorinated volatile organic plume. But that's all we can do is take that out of there. The problem here is that this is in the groundwater. So could you remove mass that way? Yeah, possibly, but you're going to have to destroy the entire wharf here to do that, so that's part of the problem. But again what happens is that the transport mechanism is through the groundwater, it only gets into the soil because it desorbs into the soil because of the carbon that's in the soil adhere, but that's probably not a very efficient method to get it out.

MR. HOLLINGSWORTH: Would you say, and you can say this is a guess. Would it have been cheaper to dig all that up than sit there and continually pump this stuff in?

CO-CHAIR HAYES: No.

MR. SILER: No

MR. HOLLINGSWORTH: And how many pumpings before we get to the point where we could have dug it up?

MR. SILER: Well, to dig and haul this material, which is going to be hazardous, would cost you millions of dollars, millions and millions of dollars.

CO-CHAIR HAYES: Yeah.

MR. SILER: A typical injection event probably costs about a hundred thousand dollars. So you could do an awful lot of injection events, than taking it out. Plus, like I said, digging it up is just not efficient, and you're still going to have some halo of that material left over. And you're still going to have to do something after you dug it all out.

MR. HOLLINGSWORTH: Well, if you really look at it as a developer, the most expensive piece of property on Mare Island is north of there but south of the bridge along the waterfront. That area that we're talking about there is, again, the second most expensive part and the most developable part. And it seems to me that we get to a point somewhere where we've taken now three years, and we're talking three to five more years to dig when we could have been in some kind of development if we'd have digged then hauled instead of pumping that stuff in there.

MR. SILER: There's no doubt you could have potentially gotten this faster, as far as digging and hauling, but would it have been as efficient? Probably not. And it would have been much more expensive.

MR. HOLLINGSWORTH: I probably won't live to see it, but probably after BRAC gets their next environmental award for this thing, once again, we've got to get to the point someday where we get this damn place developed, you know.

MR. SILER: We agree.

CO-CHAIR HAYES: You have a ton of property to develop right now. Environmental cleanup is not the impediment to the development in this town, it's vision and investment money and a few other things, regardless of what your boss reported to the city council. We've got lots of places cleaned up out here; right, Gil?

MR. HOLLINGSWORTH: I don't think that's correct.

CO-CHAIR HAYES: It's not?

MR. HOLLINGSWORTH: That is so -- that is so far --

CO-CHAIR HAYES: Oh, throw in the towel.

MR. HOLLINGSWORTH: Since 2002, we've been saying over and over again that environmental remediation drives development. So I don't think that's --

CO-CHAIR HAYES: It makes it possible, yeah.

MR. HOLLINGSWORTH: I firmly, 100 percent disagree with the point that we have something to develop, because we don't have something to develop because we've got to clean up all of these places. We've got to do the mass so we can get the little small areas. Because anything within that mass restricts us from developing the little small areas. I mean she and I talk every week about the reuse of the north island. Twenty something acres up there, or closer to 30 acres up there is holding up 200 acres.

CO-CHAIR HAYES: Yeah, but let's be fair to ourselves here on this Board. Actually you have two proposals from an RFP, and neither one of them ever called your boss back. That has to be holding something up. It has nothing really to do with environmental cleanup. And one of the neat things that we've seen happen was when there was a project, the Navy and the City were able to move resources around to make it happen. Show us the project, show us the money, show us the will. I mean, it seems to me like the north island got busy and got cleaned up because you had a multi-billion dollar project that fell down on its knees. So what's the rush now? I mean nobody even called you back.

MR. HOLLINGSWORTH: The rush, like anything else is you've got to be prepared for the future. Now you bring up two, there may be five, there may be ten different groups that are looking at the north island.

CO-CHAIR HAYES: Noah, Noah's Ark for one of them; right?

MR. HOLLINGSWORTH: I have no idea what you're talking about, but --

CO-CHAIR HAYES: Your boss gave a presentation on it.

MR. HOLLINGSWORTH: As long as we're restricted where you've got this doughnut hole. I don't know why I've got off on the north island. But anyway, you've got this doughnut, you've got this little small 30 acre plot holding up development of 200. So my point in this whole thing is I was interested in finding out why it wouldn't have been cheaper, or not cheaper, but when we take the time and we put the time into this, could we have moved ahead and be two, three years ahead of an NFA up there so that we can bring the development into there.

MR. SILER: You could do that, Gil, that's fine. But the problem is there's only so much money to go around to do this stuff. And if you start getting to a point where this cleanup costs more than you can ever get back in a return, why would you do that?

MR. HOLLINGSWORTH: Well, you know, that's a good point.

MR. SILER: If you want to dig out everything on the commercial industrial portion of the EETP, you line the D-10s up here on G Street, and we kick everybody off the island, we knock down every building, and we take everything out. But there's nowhere to put that soil and that's a \$2 billion job.

MR. HOLLINGSWORTH: Okay. Well, we're just arguing semantics.

MR. PORTERFIELD: I was wondering how deep are the wells, and compared to the average mean tide, what are the bottom of the wells on the mean tide, above or below?

MR. SILER: Well what they are is below the mean tide, they're below the mean tide.

MR. PORTERFIELD: How deep are the wells?

MR. SILER: They're about 20 feet. I think the deepest one is probably about 35 feet.

MR. PORTERFIELD: Okay.

MS. TYGIELSKI: I might be confused but I'm thinking the last time we talked about this, arsenic came up in the discussion.

MR. SILER: That's right. And we've been monitoring for arsenic, and arsenic has not developed at any concentrations that would seem to be any kind of a problem.

MS. TYGIELSKI: Okay. Thank you.

CO-CHAIR HAYES: See, the chemistry teacher asks that.

MR. SILER: Okay. Thank you very much.

CO-CHAIR LEAR: Okay. We're at our first public comment period. Any comments?

(NO RESPONSE.)

CO-CHAIR LEAR: So we are at our ten-minute break, and we have a little celebration. So if you would all join me in the room over there, that would be great.

(Thereupon there was a brief recess.)

V. ADMINISTRATIVE BUSINESS (Myrna Hayes and Janet Lear)

CO-CHAIR LEAR: Okay, folks, we're going to get started again because this sugar high is only going to last so long. So we are at administrative business. And as always, if you have any comments on the meeting minutes, get those to Myrna or myself. Did you have any administrative [business]?

(NO VERBAL RESPONSE.)

VI. FOCUS GROUP REPORTS

CO-CHAIR HAYES: So we are at focus group reports. Do natural resources or technical or city have any reports tonight?

a) City Report (Gil Hollingsworth)

MR. HOLLINGSWORTH: Nope.

MR. KARR: Nope.

b) Lennar Update (Neal Siler)

CO-CHAIR LEAR: So Lennar update.

MR. SILER: Everybody should have the 11x17 handout I'm going to talk from. The pictures in the upper right-hand corner, that's the third ERD injection event that we talked about earlier this evening. And in the upper left-hand corner is Building 781. And believe it or not, Building 781 is going to be removed from the facility.

CO-CHAIR HAYES: That green building?

MR. SILER: She's coming down, that green monster.

CO-CHAIR HAYES: Now we can drive real fast down there.

MR. SILER: So that site is kind of interesting because it has a low occupancy land use covenant on it. And the reason we kept it there was the fact that we needed it for power. And now that Island Energy has been able to redirect their power, we're able to go ahead and remediate the site and then demolish the building.

CO-CHAIR HAYES: And then you'll take the covenant off of it?

MR. SILER: Yeah. Then we'll get the release of the covenant off of that facility.

MR. RASMUSSEN: Neal, just a quick question. Do you have any idea how it will be demolished exactly, what kind of process will be used to demolish it?

CO-CHAIR HAYES: High explosives from the south shore.

MR. SILER: No, nothing like a depth charge or anything like that.

MR. RASMUSSEN: That would have been perfect.

MR. SILER: Somehow I don't think the people on the corner of Azuar and Kansas would have been very happy.

CO-CHAIR HAYES: Not very long, it won't take too long.

MR. SILER: But we're just basically going to take an excavator and knock it down once we get the clearance. So talking about submitted documents, we submitted interim site data report for the FOPL's at the Building 207, 85, 89, 271 Complex. We submitted a cleanup plan for Building 866 dump site. And Janet Naito was kind enough to get comments back on that. We also finalized the remedial action summary report for the paint shop varnish area and PCB site Building 1302 UL-02, and Janet was kind enough to get us comments back on that. And then we also were able to get comments back from Janet on the CVOC's near UST.

MS. NAITO: That wasn't Janet, that was --

MR. SILER: And Elizabeth, too.

CO-CHAIR HAYES: Is she unkind sometimes?

MR. SILER: No, Janet and Elizabeth are never unkind.

CO-CHAIR HAYES: That's their job.

MR. SILER: Upcoming documents. We need to get some responses and some comments back on investigation of storm sewers in IA C-1 and C-2. Cleanup plan notification for Building 781, as I

told you, that will be coming along soon. And then the release of the pre-decision covenant on Investigation Area D1.3 North. Field work under implementation right now. The third injection event, as I talked about. Building 69, UL-02, UL-03 PCB sites, they finished the scabbling and collected the verification samples today, so hopefully that will be the end of that. And then on the crane test area we're going to look into mitigating the stormwater issues that we have at the corner of Azuar Drive and A Street. So hopefully that will be coming up here in the next month or so, we're trying to work ahead on that. In fact, CH2M Hill will be out here on Monday taking some measurements at the site. So upcoming fieldwork. You can see a lot of the things that are going to be coming up in the future here. And if anybody has any questions, I'd be glad to answer them now. Moving right along.

CO-CHAIR LEAR: Weston update, Dwight.

MR. GEMAR: Okay. I just have the one page handout on the document front. We are very close on getting to a final remedial investigation report for IR Site 5 and the western magazine area down at the south end, and hopefully that will get finalized here in October and sent to the agencies for final review. And then right behind that we have already drafted a feasibility study for that area, and that will be the next significant document. And then also for H-1, one of the last documents that we need to do is the post closure care plan. And that is also under review and should be off to the agencies here soon with a response to comments. And then we did send out to the agencies the western early transfer parcel second five year review, and then the investigation area H-1 first five year review, so those are being reviewed. And along the same lines there, we did publish the public notice for the upcoming five year review for those remedial sites. And again, those documents will be made public as soon as the agencies have had their bite at the apple. Not too much excitement at the groundwater extraction system, that's operating normally down to about a gallon a minute based on the cap doing its things. We did our annual settlement survey, settlement monument survey for the containment area cap. And as noted, most of the areas showed only a tenth of a foot or less settlement over the past year, which is very good, and about a cumulative, not much more than half a foot in any given area out there. So it's holding up very well. And then we completed our fifth year vegetative survey of the wetlands that we created out in H-1. And hopefully we'll be at or very close to the criteria that we need to meet, which is the 90 percent cover of native plants, 60 percent pickleweed, and less than five percent of non-native plant species. And you'll see a picture there that shows the wetland creation area looking pretty good.

CO-CHAIR HAYES: Does the palm tree count?

MR. GEMAR: Nope, that's in an upland area. But to my non-biologist eye it's looking pretty good out there. And once the numbers are crunched we'll be hopefully at or very close to these requirements.

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

CO-CHAIR LEAR: Regulatory update.

MS. WELLS: I've been reviewing reports and I'm just about complete with transitioning projects over to Adrianna Constantinescu at the Water Board.

MS. NAITO: Well, I did manage to take a two-week vacation this year, so that was this month because I did turn fifty, so I had to celebrate. And so the rest of the time I have been diligently working on my other projects.

MS. D'ALMEIDA: Nothing much to report except I've got a date with Mel on Monday afternoon to go out and look at about ten PCB sites on the south shore and PMA. Should be a fun afternoon.

CO-CHAIR HAYES: Yeah. And what are you going to do looking at them? What for?

MS. D'ALMEIDA: PCB sites, it's to look at them to verify the closure reports for the PCB sites they sent me. So I'm going to go out in the field, verify, and look. Did they take enough samples for the area, are there stains that they missed, is the work that they've done adequate? That's what I'm looking at.

MR. RASMUSSEN: Carolyn, excuse me. Is there anything you do physically on these inspections like this when you're there? What's your day like when you go to these places?

MS. D'ALMEIDA: Physically? Am I taking samples? No, I'm not taking any samples. I'm just looking at what they reported and comparing to the conditions that I see out there and letting them know if they need to take more samples or if I think it's adequate for closure. It's hard for me to get a sense of what it is really like out there just by looking at what they give me. It just shows me some of the history of what was out there and what samples they took. But if I don't go out there and actually look at it, it's kind of hard to get a feel for how many samples they really need to take and is it really adequate.

MR. RASMUSSEN: Okay.

VII. CO-CHAIR REPORTS

CO-CHAIR LEAR: Okay. So for the Navy update. During this last month, the major effort has been the removal action at PMA SSA that we heard about earlier. Some of the statistics in this MPR are not as up to date as your presentation, so it says here that 11, almost 12,000 anomalies have been investigated, but obviously, a lot of anomalies have been investigated since this was put together. So it's actually, as you noticed in your presentation, more like 13,000, and 81 munitions and explosives of concern items have been found at 56 locations. So just to reiterate, all of the recovered MEC items have been discarded military munitions, which means they were unfuzed and unfired. We also completed work under two buildings and continue under the other thirteen. We submitted six documents to the regulatory agencies, and received comments or concurrence on four additional. We also have tentatively planned the 2012 RAB tour for the third weekend in November. Still working out whether that's going to be a Saturday or a Sunday. Mike Coffey is usually unavailable on Saturday, and Paula is usually unavailable on Sunday, so we're trying to --

MS. TYGIELSKI: Don't worry about me because I personally cannot drive here anymore. I got a ride with my son tonight.

CO-CHAIR LEAR: Okay.

MR. GEMAR: Let me know, I'll come pick you up.

CO-CHAIR HAYES: Yup, she's on the way, huh?

MR. GEMAR: Yup, I drive through Benicia on the way.

MS. TYGIELSKI: Do you?

MR. GEMAR: Absolutely.

CO-CHAIR LEAR: So I've asked Mike to double-check with his work to see if he can get the day off on Saturday, but he's been on vacation.

CO-CHAIR HAYES: In Europe.

MS. NAITO: Everybody's going to Europe this year.

MS. WELLS: Except for us.

CO-CHAIR LEAR: We'll see whether it's going to be Saturday or Sunday, and I'll start talking with Weston and Lennar about which sites to visit. I know, Myrna, you had already made a request, and I passed that onto Neal. So we will be working on that. And, of course, at our next RAB meeting we have a presentation by our business line team leader on our contracts requirements for local business that was requested by Maurice. And that's all I have.

CO-CHAIR HAYES: Going back to the topic that's near and dear, among others, to my heart, the munitions issue. You mentioned that you weren't going to do anything until, you know, the end of time, the end of the remediation. But as I recall, Heather actually stated at the last RAB meeting two months ago that you actually forsook or misunderstood that we [wanted] a community relations plan update, because you were going to turn your focus upon our recommendation to munitions education. So that was several years ago, I think. So I wouldn't see why you couldn't do that as promised. And, quite frankly, as I recall the community relations plan workshop that we had, the reason that we recommended munitions be a focus of the community relations plan update was because of how ubiquitous munitions issues are across the island. Those are, as some of these other projects have been coming to a close, or are deeply buried in the bowels of the river shore, like IR-15, the munitions from -- whether it's paint waste or along the trail that we've just gotten an award for, or the south shore area seemed like the main topic that would be of interest to people, and that might be something that they would come in contact with, or should be an educational program on the island, whether it's in schools or in homeowners associations or in publications to business or to military history visitors like we have. So I want to clarify that, and I want to continue to sit down and work with the Navy to generate some materials in addition to the couple of flyers that you are providing and we are distributing. I think we probably distributed 800, 700 since you started the project in May on the south shore through our preserve. So I think we've done a good work, but if that really was your intent, then let's get that jump started. And that is the nature of what we asked and why we asked for that in the community relations plan.

The 17th annual San Francisco Bay Flyway Festival comes up February 8 through 10, 2013. It's actually the eighteenth event. You've heard me say that. The first event was held at Building 505. Assistant Base Commander John Becker was the master of ceremonies, and over a thousand people came through the main gate, having to get a pass from the military police to come on the island for four hours. That was the beginning of our tours and outings to the south shore as well as to what's now the regional preserve and also the trail on the western side. So from day one the Navy was committed to telling two stories about its environmental work at the island. One, it wanted to make sure the public knew that it has been a good steward of natural resources on the island; And that, number two, they were undertaking a massive environmental cleanup effort. So I believe that we've kept our word, kept our commitment to the community to continue to keep those two issues front and center in a fun and educational forum, and so I invite you to participate at any level that you wish to, from attending to sponsoring to presenting, guiding hikes, all the things that many of you have already done.

And then, finally, my printer does not work so my friend printed me two or three copies, I'll pass these out quickly just for you to take a look at. This Saturday night we have our first music event in the preserve that we hope will be a little bit of a fundraiser, you never know, in the Rowser Garden where we've been pulling French broom for the last five years. It is reducing the fire risk of that highly volatile plant that was a big part of the Oakland Hills Fire, according to our fire chief. The plant exploded directly into the air up to 30 feet because of how much oil it has in it, and then setting the Eucalyptus trees on fire. So we're really proud of the absolutely hundreds of thousands of broom plants that we've pulled out of about four acres, and we've unveiled a garden of about 80 years old that was there hidden amongst that. So come out Saturday evening, bluegrass music, potluck beforehand, and all of those wonderful things. So thank you.

CO-CHAIR LEAR: Thank you, everyone, for coming.

MR. GEMAR: One last quick one. I forgot to mention that on November 1st there's one more opportunity for a group hug relative to the Investigation Area H-1 Award. Hopefully everyone in this room has gotten an e-mail invite to enjoy some light refreshments, and we have some dignitaries from the Navy and the City, and hopefully maybe a regulator or two just to acknowledge the recent awards that each one received, and, more importantly, to kind of celebrate the environmental cleanup progress that we're seeing on the island. And we're going to do that at Quarters A, the Admiral's Quarters on Walnut. And then for folks that want to, we're probably going to get a couple of golf carts, and we can take people out on the trail if you would like to go out to the trail on the west levee. And if you don't want to or can't walk it, we'll get some transportation to let people see the work that was done as part of the cleanup remedy out there. So we're excited about that, and happy that several of the various folks, including the Navy and the City and hopefully the regulators will come and support that.

CO-CHAIR HAYES: Very cool. And really, truly, thank you to everybody for the cake and these wonderful items and the plaques and all the hard work. Gil, we just got the wrong project finished I guess.

MR. HOLLINGSWORTH: I guess.

CO-CHAIR HAYES: You haven't thought of something to do with Landfill Hill?

MR. HOLLINGSWORTH: I don't know where Landfill Hill is. Oh, your landfill.

(Thereupon the proceedings ended at 9:39 p.m.)

LIST OF HANDOUTS:

- Presentation Handout – Remedial Investigation at Unexploded Ordnance (UXO) Site 3 – Dredge Pond 3E and Northern Marine Corps Firing Range – Navy
- Additional Presentation Handout – Remedial Investigation Work Site Plan, 1000-Yard and M367 Target Berms Sampling Locations Figure
- Presentation Handout – Production Manufacturing Area and South Shore Area Munitions Non-Time Critical Removal Action (NTCRA) Field Work Update – Weston Solutions
- Presentation Handout – Remediation Progress Update, Installation Restoration Program Site 15, Investigation Area C1 – Lennar Mare Island
- Additional Presentation Handout – Features within the EETP Figure

- Navy Monthly Progress Report Former Mare Island Naval Shipyard September 27, 2012
- Weston Solutions Mare Island RAB Update, September 2012