



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

**HELD THURSDAY, September 30, 2010**

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, September 30<sup>th</sup>, at the Mare Island Conference Center, 375 G St., Vallejo, California. The meeting started at 7:13 p.m. and adjourned at 9:13 p.m. These minutes are a transcript of the discussions and presentations from the RAB Meeting. The following persons were in attendance.

**RAB Community Members in attendance:**

- Myrna Hayes (Community Co-Chair)
- Kenn Browne
- Paula Tygielski
- Wendell Quigley

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

- Janet Lear (Navy Co-Chair)
- Reginald Paulding (Navy)
- Neal Siler (Lennar Mare Island)
- Steve Farley (CH2MHill)
- Dwight Gemar (Weston Solutions)
- Janet Naito (DTSC)
- Carolyn D'Almeida (U.S. EPA)
- Elizabeth Wells (Water Board)
- Gil Hollingsworth (City of Vallejo)

**Community Guests in attendance:**

- Miguel Buchwald
- Jim Porterfield
- Greg Tracey

**RAB Support from CDM:**

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

## **I. WELCOME AND INTRODUCTIONS**

CO-CHAIR LEAR: Well, good evening, everyone, welcome. This is my very first time as the BRAC Environmental Coordinator. I'm excited and hope I don't mess it up too much.

(APPLAUSE.)

CO-CHAIR LEAR: The first thing we do is introductions; correct? I'm Janet Lear, I'm the BRAC Environmental Coordinator with the Navy.

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

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

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

MS. NAITO: Janet Naito, DTSC.

MS. WELLS: Elizabeth Wells, Water Board.

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

MR. FARLEY: Steve Farley with CH2M Hill.

MS. TYGIELSKI: Paula Tygielski from Benicia.

MR. GEMAR: Dwight Gemar with Weston.

MR. PAULING: Reginald Pauling with the Navy.

MR. SILER: Neal Siler with Lennar Mare Island.

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

MR. TRACEY: Greg Tracey with SAIC.

CO-CHAIR LEAR: And I did just want to introduce Reginald Pauling, he's our new RPM with the Navy.

MR. NEVILLE: And last but not least.

CO-CHAIR LEAR: I'm sorry.

MR. BUCHWALD: Miguel Buchwald, Mare Island resident.

CO-CHAIR LEAR: Okay. So tonight we have two presentations. The first one is Remedial Investigation Results and Conclusions for Installation Restoration Site 05, this says Dredge Pond 75, but it actually should be Dredge Pond 7-S and the Western Magazine Area. And that will be presented by Dwight Gemar with Weston. Our second presentation is the Implementation of Remedial Actions of Building 461, Investigation Area C-1 by Mr. Steve Farley, CH2M Hill. And so we can get started then with our first presentation by Dwight Gemar.

## **II. PRESENTATION: *Remedial Investigation Results and Conclusions for IR Site 05, Dredge Pond 75, and the Western Magazine Area* Presentation by Mr. Dwight Gemar (Weston)**

MR. GEMAR: Okay. Thanks, Janet. All right. Well, I wanted to first go over what the purpose of a remedial investigation report is. And that is to characterize the nature and extent of contamination at a site and develop the associated human health and ecological risks.

And there's several steps involved, as I've listed here. Of course, the first is to look at existing data, both site history and any previous investigations. And then to conduct additional field investigations, if warranted, to close any data gaps. And then you take that information and define the nature and extent of contamination in terms of waste types, concentrations, and distribution across the site.

At the IR site 05, the Dredge Pond 7-South, and the Western Magazine area we have three major categories of waste materials: Munitions and explosives of concern, which we use the acronym MEC. We have radiological items which consist typically of small radium and strontium containing buttons or luminescent deck markers that were used on board ships, and then ultimately discarded, oftentimes inappropriately. And then chemical contaminants consisting of metals and organics. Hey, Carolyn.

MS. D'ALMEIDA: Hello.

MR. GEMAR: Once we assemble all that information, we then conduct human health and ecological risk assessment calculations to determine if there are any unacceptable risks at the site. And then ultimately determine the need for a feasibility study to evaluate potential final remedial actions. So that's what a remedial investigation is all about.

And then here are the site locations. They are all three sites located at the southwestern portion of the Mare Island peninsula. We have the Western Magazine Area here along the -- west of the golf course area. And then at the extreme south end of the island you have an Installation Restoration Site 05, and Dredge Pond 7-South along the Carquinez Strait. During portions of the presentation I'll be referring to uplands and wetlands.

So I thought I would show where these are located at so you'd have some point of reference. For Dredge Pond 7-South, the western portion is non-tidal wetland habitat. And there's also a small portion of non-wetland habitat in the northwestern portion of IR-05. In the southern portion of IR-05, that's all tidal wetland. And anything that is not a wetland is considered an upland.

Just for reference, this area up here labeled Dredge Pond 7, was cleaned up and transferred from the Navy to the state in 2002. This small area here, the Navy still retains that portion. That is used for detonation of recovered munitions items on an as-needed basis.

And on this slide showed the wetland locations within the Western Magazine Area which comprise, you know, most of the area. You can see that in between the magazines there are basically four wetland locations, and these are actually tidal wetlands. They're connected with a channel along this edge here that goes out to the Carquinez Strait. So these are all tidal wetlands. So for the seasoned veterans of the RAB, this is a familiar slide just to show the history of IR-05 and Dredge Pond 7-South. It was originally created by a combination of natural fill and accretion and artificial fill behind dike twelve, which is this dike along the edge of the Carquinez Strait. And, of course, this was all open water at one time.

This site was used primarily for open burning and detonation of unwanted munitions. And actually when this photo was taken you can see that they appear to be burning some propellant in 1949. And then you can also see that on the northern part of the site there is a lot of storage. These were casings and other munition components that were stored outdoors. You can actually

see in the lower portion here this is a dredge pipe going out to Pond 7. And Pond 7 and 7-South were originally one dredge pond, and then in the seventies there was a berm that was built or a levee, a small levee that bisected the two, and then Dredge Pond 7-South use was discontinued when that was done in the 1970's. And the Western Mag -- this is one of my favorite photos of the Western Mag, that was taken on a frosty morning in December, I think.

CO-CHAIR HAYES: November.

MR. GEMAR: So it was very cool, kind of like the old sentinels here. But this area, of course, was also created from tidal wetlands. These roads that you see here were built out, and then the magazines were built. These were built on piers. And there are several -- a few that are built into the hillsides. And they were used for storage of ammunition for the Navy, and then ultimately this area was deactivated after the Vietnam War in 1975.

So I'm not going to go through all of these, but this is just to give you a sense for all of the various studies that have taken place that involved these sites. This is the list for IR-05 and Dredge Pond 7-South which has been studied on and off for some thirty years. And most recently, within the last ten years or twelve years there has been several removal actions done out at the site. And I'm going to highlight a couple later in the presentation. This Munitions Response Action in 2006 to 2010, and also the Time Critical Removal Action 2007 to 2009, I'll describe those briefly.

Also, the Western Mag has had its share of studies. And also was part of a Munitions Response Action that I'll talk about briefly, and then was also involved in this Time Critical Removal Action.

The first category of contaminants that I was going to briefly mention was -- is the munitions and explosives of concern, the MEC. In the 1990's the Navy performed a Time Critical UXO Removal Action. This involved the use of hand-held magnetometers, which we call a mag and flag survey. They use the instruments to locate buried metal in the underground, and then they put a flag at that location, and then another set of UXO technicians comes and digs it up to determine if it's just trash or if it's an actual piece of munition. And they did remove, as you can see here, 468 items that were considered to be containing energetic material. And then a large number, 173,000 plus of inert munitions which is -- the government now uses the term Material Documented as Safe for inert munitions or MDAS. Another acronym to remember. Then in 2006-2010, Weston performed a digital geophysical mapping survey [DGM], which uses an electromagnetic technology, to locate subsurface metal anomalies. That was done in the upland areas. And we also used a modified cart to do the crawl spaces under fourteen magazines that were elevated on piers. We also later, in 2009, did a mag and flag survey of wetland areas that were flooded during the original DGM survey. The result of that was we excavated over 5,000 individual anomaly locations based on those two geophysical surveys. Each one of these locations was also checked for radiation to make sure that there weren't any elevated radiological items co-located with the metal. And all of these locations were excavated to a depth of four feet. And as a result of that, we removed over 300 MEC items that were -- had not been recovered from the original work in the 1990's, and -- although most of these were in one location. And also about 3,000 MDAS items, the inert items. However, no radiological items were encountered.

And also as a refresher, this is the location of the materials that were located during the 2006-2007 timeframe. Again, almost all of the MEC items are shown -- recovered in this location

were shown in red dots near the entrance. We're not sure why these were missed during the original investigation. It's possible that there was a railroad spur in this area that had not been removed during the first survey, and these items were buried beneath the railroad spur. In any event, these items were recovered. And also, there was a lot of inert items that were scattered about the site.

And then later in 2009 there was a concern about the wetland areas that were not accessible during the DGM survey. So these areas, this area here, this tidal area -- well, all these tidal areas along the south part of the island, or of IR-05 were checked. And you can see that a number of primarily MDAS items were recovered, as well as a few MEC items. It's interesting to note that we found a lot of these along and underneath a berm, a small berm that separated this tidal area from this tidal area. There was also a small berm over here where we found a number of items. So it's possible that either these areas were not cleared when they built the berms, or they just used soil from the surrounding areas to build the berms which had not been investigated. So it appears likely that that kind of linear distribution of material was related to the construction and/or placement of those berms.

And here's a summary of what we found overall in IR-05 and Dredge Pond 7-South in the upland areas versus the wetland areas. Obviously the 90 percent plus was found in the upland areas. However, we did find a number of items, 21 to be exact, in the wetland areas. However, in IR-05, because of the history, some of the areas that are now wetlands were probably not wetland at one time, so there might have been some use of those areas; although, again, most of the items were found in the upland areas. And we did not locate any radiological items during either of those surveys.

Over at the Western Mag it kind of followed a similar track. In the late nineties the Navy instituted a geophysical survey, located over 1,000 anomalies. And upon excavating those anomalies, they removed 173 MEC items and almost 20,000 MDAS items. In 2006 Weston conducted a digital geophysical mapping survey, just like we did over at IR-05. We originally thought that this was just going to be a confirmation survey just to verify that everything looked good, but we obviously saw a lot of clutter in the ground, and that clutter needed to be investigated to determine if it was just metal trash or if it contained munition items. And in the course of the investigation at the Western Mag we've excavated over 11,000 locations. Also, all of these locations were checked for radiation levels, and all excavated to a minimum depth of four feet. And that included a mag and flag, again using the magnetometers, of the perimeter of the wetland areas. We did not survey the entire wetland areas of the Western Mag because they were always -- have always been wetlands based on historical photographs, and we didn't really expect to see much in the wetlands. And as I'll show in a moment, that certainly appeared to be the case based on the result of our survey. However, we did recover 769 MEC items, and nearly 5,000 MDAS items from our survey and subsequent munitions response action at the Western Mag. We also did recover 34 radiological items. These were all located at former dredge pond or dredge discharge locations in the northern part of the Western Mag. It was not well known for quite a while, but the two northern wetlands of the Western Mag essentially were dredge ponds at one time and received discharge of dredge spoils into those wetlands. And, ergo, location of outfall masses were discovered.

And again, this probably looks familiar, but this is the location of the MEC shown in red that was located. And this area up here was where two outfalls were located, one here and one here. And then the yellow is the inert munitions items. And what we saw here was pretty much a cluster of

items in the northern part, a few onesies, twosies, over here, and again a cluster over here and over here in the southern and the southeastern part of the Western Mag. And based on review of the historical photographs, these areas were used for outdoor storage, and quite likely then there was some associated loss during the handling of those items in those lay down areas. So that, I think, accounts for the reason why you see those items in those locations.

And here's the guy's tromping through the pickleweed under the close supervision of an approved biologist. And again, they did the perimeter all the way around all four wetlands looking for any potential metal that was discarded out into the wetlands.

And so in the next slide you can see the summary of what was located. Of course, in this case, as we kind of theorized, we did not find any MEC in the wetland areas and only three MDAS items. Nearly 5,000 MDAS items in the upland, and the 769 MEC items in the uplands as well. And the 34 items were in the uplands at the outfall locations. And those are a couple of UXO techs trying to look tough.

CO-CHAIR HAYES: They are, aren't they?

MR. GEMAR: So based on the past removal actions and our most recent removal actions for MEC, we input that data into a new tool that has recently been developed by the U.S. EPA. This is a semi-quantitative tool that's known as a hazard -- MEC hazard assessment. And it basically uses -- it's structured around these three components: Accessibility. That is, are the items on the surface and are they buried? If they're buried, how deep? The sensitivity of the item pertaining to whether the item has been fired and just didn't go off, i.e., is a dud which is more dangerous than if an item was not fired and it was just buried and just discarded. And then the severity, which would relate to the type of munition and the size of the munition, etcetera. It also, as noted here, takes into account what has already been done at the site, and the information is input into basically a spreadsheet type of tool. Also you input the current and anticipated future land uses associated with the sites and how many man-hours per year, or basically how many exposure hours per year you expect for people to be in the area. And then it calculates a relative hazard number, numeric number of one being the highest hazard ranking, and four being the lowest hazard ranking. And based on the use of that tool -- well, first I should say that, you know, we found that it does have some limitations in terms of the choices for the data input. You have to use a pull-down menu, and if what you have doesn't quite fit the items on the pull-down menu, you just have to pick the one that's the closest. So it's not an ideal. It's been used by the Navy for a couple of years as kind of a test case to see how well it actually relates in the real world to any benefit to evaluate the risks at these kind of sites. But, nevertheless, this particular tool did result in a category 4 MEC Hazard Level for these sites which, again, represents the lowest hazard ranking for this evaluation. However, as we've mentioned in previous presentations, we cannot guarantee that all MEC items have been located because of the limitations of the instrumentation and based on the depth and size of the items. Given that most of these areas are going to be open space and passive recreational, we believe the areas are safe with the assumption that appropriate land use controls are implemented. So a feasibility study is recommended to evaluate land use controls for the MEC hazard at these sites. So that's the summary for the MEC hazard component portion of the sites.

And this slide talks briefly about the radiological hazards. I wanted to mention that there was a high density scan survey of all the dredge ponds on Mare Island in 2001, which included Dredge Pond 7-South, however no radiological items were recovered at Dredge Pond 7-South. Also,

during the excavation of geophysical anomalies during the munitions response action, there have been over 5,000 excavations at those anomaly locations to a depth of four feet. And in all of those areas the soil was scanned for any elevated radiation. We did not detect any at IR-05 Dredge Pond 7-South. And at the Western Magazine Area over 10,000 anomalies were similarly excavated and checked for radiation. And the only places where we located radiological items were in the outfall location at the northern end of the Western Mag. And later we did a followup radiation scan, also using the same high density scan techniques that were used in 2001, and we found one item that we missed during the excavation of the outfalls. So we do feel pretty good that we have investigated that area thoroughly.

Again, the planned reuse for the Western Magazine Area is similar to the other two sites, open space, recreational use. And we, again, believe that with the appropriate land use controls, the area is safe. And we also recommend that the feasibility study evaluate land use controls for the radiation hazard component.

The third and last section is dealing with the chemical contaminants on the site. Based on review of past data, some additional sampling was performed in 2007. And through that additional sampling we identified areas where the lead, zinc, and mercury, particularly in upland and wetland soils, were potentially at concentrations that would be a problem, primarily for an ecological concern to animals, birds, those kind of receptors. So as part of that data gap sampling evaluation, we determined that a fair amount of soil should be removed from the locations, and IR-05. And we did that in 2007, with some follow-up excavation in 2009. As you can see, in 2007 and a little bit in 2008 we removed 23,000 cubic yards from upland areas, and about an additional 10,000 yards in 2009 in the wetland areas. The reason the wetlands were done later was we were waiting for approval from Fish and Wildlife Service for a biological opinion to allow us to remove soil within the wetlands because they also contained pickleweed which, you might recall, is the habitat for the salt marsh harvest mouse, our good friend out at Mare Island. So we did that in 2009. And then the soil from both of these excavations were used for a cap, or subgrade material at the H1 Containment Area.

And here's a basic hot spot excavation. Typically these were only two to four feet deep in order to remove the contaminants. You can see the, you know, the Bay mud layer underneath here. And this just shows areas that were excavated. The yellow portions were excavated in 2007, and then the area kind of in a circle with a magenta line was excavated last year in these areas that were primarily pickleweed areas. So based on the remaining soil concentrations, after the soil removal, the risk assessors then take this information and start generating calculations to estimate the risk. And you can see here, these are some basic assumptions that were used for the three cases that were evaluated for human health. We looked at a recreational, current recreational receptor, somebody that would be out there potentially 72 days a year for seventeen years, or until they started having, you know, girlfriends and boyfriends, and then they probably wouldn't come out anymore. But the future recreational user pretty much assumes it's the wild west, there's no restrictions on digging or anything like that. So we actually look at a zero to ten foot interval, whereas here we look at zero to two because there are currently controls on the site. But the future recreational receptor actually looks at zero to ten feet. Future construction worker is also looked at. And, again, it's a very conservative, eight hours a day for 250 days a year. Based on the calculations they look at cancer risk. Typically anything less than one times ten to the minus six, or one in a million cancer risk is considered de-minimus, or not a concern. Anything between ten to the minus six or ten to the minus four is within what the EPA considers within a

risk management range which means that the regulators will evaluate the relative protectiveness of the site based on the conditions within this range. And then we also look at non-cancer risk which is compared to what's called a hazard index. Basically anything less than one is considered acceptable. Anything more than one is not, or at least it requires further evaluation.

So here's a bit of an eye chart. And I'm not going to go through all of these in detail, perhaps when you're home with an appropriate beverage you can evaluate these more closely. But I do want to point out a few things. That each of these are based on -- first they're sorted by the habitat or the upland area versus non-tidal versus tidal in the case of IR-05 and Dredge Pond 7-South. And for each one of these locations we look at these users, this current recreational user or future recreational user, or future construction worker. So a couple of take-homes from the slide is, pretty much the risk out at Mare Island is driven by the ambient levels of arsenic. Also manganese pops up here and here, and aluminum as well.

This column here is the statistical average of the site as it currently exists. And the column to the right of it is the statistical average of background samples taken on Mare Island. So for the most part the soil, the site average conditions out at the site are very similar to background, ambient levels on Mare Island, which is important because typically you don't try to clean up anything less than ambient because it's background.

So this is the result for IR-05 and Dredge Pond 7-South from a human health risk standpoint. So this table -- or this slide -- excuse me -- summarizes the results from a ten thousand foot elevation. And, of course, the risk assessment goes into a lot of additional detail. But for exposure to soil at zero to two feet, the current recreational user is within the risk management range, cancer risk management range, and it's below the threshold of one for non-cancer risk. For subsurface, same story, it's within the cancer risk management range with a non-cancer hazard index less than one. For the future construction worker, there is a non-cancer hazard index greater than one, I believe it's driven by manganese. Again, the problem is that manganese is already at the ambient levels for this area. Other pathways were also evaluated. Surface water, which did not indicate an unacceptable risk. Inhalation of vapors from groundwater did not show a risk. Direct contact with groundwater by the construction worker did not show a cancer risk, but did again show this non-cancer hazard index risk of greater than one. But, again, that was due to manganese which is basically background out there. So the overall summary is that the current human health risk out at the site is within the risk management range of ten to the minus six to ten to the minus four. However, the soil concentrations out there at background contribute to the majority of the risk, which has to be taken into account when these results are evaluated.

And we have a similar story out at the Western Magazine Area. Again, arsenic, aluminum, and manganese are the drivers. And, once again, if you look at the comparison of the numbers in the statistical averages columns for -- the one on the left is what's out there now, and the one on the right is background on Mare Island -- they're very similar. I didn't mention it on the first table, but the smaller numbers in the parentheses, well the numbers in parentheses is actually what's called the ninety fifth percentile. And it is literally the 95 out of a hundred results are less than this number. So it's a little bit different number than the statistical average, but it's also looked at in terms of comparison for when the risk is being evaluated. And I think for the most part the -- or probably exactly, the results for the Western Magazine Area are identical to IR-05 in terms of receptors being in the management range for cancer risk, and less than the hazard index of one for non-cancer with the exception of the future construction worker. And again, from a final

bullet here, again the soil concentrations are certainly at or similar to the ambient levels on Mare Island.

And now we're going to shift gears to the ecological risk assessment which has to do with the non-human receptors. And I won't try to go through all of these in detail. But you can see that in the upland areas where we're looking at these receptors here, the western meadowlark, Northern harrier, California vole, ornate shrew, and gray fox. In the non-tidal and tidal wetland areas we're looking at the salt marsh harvest mouse, the killdeer, great blue heron, and mallard. So those are the species that are evaluated. And the hazard quotient method is used to evaluate ecological risk. First a screening level analysis is done and that's when the risk assessors will take the maximum concentration that's out there and assume the species is exposed to that a hundred percent of the time. And if that doesn't show a problem, then they drop that chemical from consideration because based on worst case it's not a problem. So then those go away. The chemicals that show a potential problem using the screening level analysis are then looked at in what's considered a refined analysis, where they look at this 95 UCL, which stands for upper confidence limit, which is again a statistical average of the site. And also they look at the site use factor, how often would this species or this animal, bird, what have you, be exposed to the soil or surface water, what have you. And then there are two criteria, comparison criteria that are used: low threshold reference value, TRV -- anything less than that is considered a low to no effect on the species, and then there is also a high TRV number which is considered this middle range effect. Typically -- and I'm not an expert in terms of risk assessment -- but the low TRV is usually used to look at the potential for impact to an individual, and usually you're only worried about primarily looking at that for endangered species, cause technically you don't want to harm even a single individual. So you use the lower TRV numbers for comparison. Whereas the high TRV you're looking at a population of species, and you want to make sure that you're not impacting the population.

So here's the real eye chart. And you might need a couple of beverages to get through all this. And I didn't really want to bore you with all of these. Just, again, show you that in the remedial investigation report, these kind of tables are generated, and they can be quite lengthy and detailed. And for the most part, again, we list the species, and then we list the contaminants of concern, and we look at the average concentration at the site. And this happens to be for the upland area. Lower down here it's for the non-tidal wetland area. We also, you know, look at the 95 UCL or the statistical average for the site, as well as the ninety fifth percentile background levels for evaluation. And then the far right column, this happens to be the high TRV result. And, again, for anything less than one or equal to one an adverse effect is considered unlikely. And there are a few items that come up a little bit higher than others. But for the most part what's out there now shows pretty low risk from an ecological standpoint. And I'm not going to go through the rest of it. But, again, you can kind of scan the right-hand side, and anything, you know, greater than one is certainly a potential problem for a high TRV especially. And, again, I'm not going to go through these, but this is for the Western Magazine Area. And a similar approach is used in terms of receptors, contaminants, and then calculating a risk number for comparison, or an HQ number for comparison to the TRV numbers.

So getting to summary and conclusions. There are potential risks to the killdeer and the salt marsh harvest mouse based on ecological risk analyses for these sites. However, we think that the ecological risk that was calculated is a very conservative estimate, most likely overestimated because we do use conservative bioaccumulation factors, which are used to estimate how much

of a contaminant the plants and/or invertebrates would uptake. And then we, there is also very conservative toxicity values that are used. And then, once again, we still have the issue of a lot of the soil is at or near the ambient background levels out at the site, which by themselves contribute to the majority of the risk. So in risk assessor speak, exposure to chemicals of potential ecological concern in the soil sediment and surface water do not pose a significant or immediate "incremental" or "site-related" risk. And that is the take home message from the RI in terms of the results. And I'd be happy to answer any questions. This happens to be one of our biologists. And contrary to folklore, this is not a salt marsh harvest mouse that stowed on board a nuclear reactor submarine, this is a sculpture that was placed in the Western Magazine Area by shipyard workers many moons ago, and it's still out there. So I know it's a lot of information, but be happy to answer any questions or attempt to. Yes, Paula.

MS. TYGIELSKI: I have a question about --

CO-CHAIR HAYES: You have to use the microphone.

MS. TYGIELSKI: Sorry. I have a question about the slide on page 23. It's a map of the -- yes, that one. It's a map of the chemical contaminations and the excavation areas.

MR. GEMAR: Yes.

MS. TYGIELSKI: Why is the only thing in the map this one area? Why not the dredge pond or the Western Magazine? Didn't you sample for chemical contamination in those?

MR. GEMAR: Right. And these were the only areas that were of a concern in IR-05. That's why you kind of have some of these little odd-looking little squares, these related to sample locations, you know, that were high or elevated and so they were taken out. We only had one location in the Western Magazine Area, I didn't bother to show it, that was elevated for mercury, and that was near the Horse Stables Area. And we actually did take that one out as well, but it was only one area so I didn't show that. But otherwise, all the other results that we have for the Western Magazine Area didn't show a problem.

MS. TYGIELSKI: Okay.

CO-CHAIR HAYES: Dwight, when you -- when you mention both for -- I guess munitions and radiological, you use the same recommendation which would be to do a feasibility study to evaluate appropriate land use controls. What are you or your -- what is the Navy thinking of in terms of what appropriate land use controls might consist of in these areas?

MR. GEMAR: Well, I think most likely, Myrna, they would track very closely to what we have for the Western Early Transfer Parcel. There would be, no doubt, a restriction on residential use on hospitals, schools, daycare centers, for starters. And then there would also likely be a restriction on excavation of soil without having a UXO trained support. And some educational signage to alert people of the history and the potential hazards that exist. And those would all be recorded with the county recorder, and they would run with the land in case of a transfer. Yes, Paula.

MS. TYGIELSKI: Is perhaps a restriction on gardening going to be part of that? Cause I can imagine some individuals deciding that the remote western side of the island might be a good place to grow a crop of weed and, you know, and, you know, or they --

MR. GEMAR: You must be referring to pickleweed, I'm sure.

MS. TYGIELSKI: No. Oh, no. So anyway, you know, is there a restriction about using -- or maybe I should --

CO-CHAIR HAYES: Medical.

MS. TYGIELSKI: Or maybe I should say farming or gardening for -- you know. Is there a restriction, going to be a restriction for that?

MR. GEMAR: Well, it depends on how bad our tax revenues are. But I would guess, yeah, the no-dig restrictions would encompass gardening as well, I'm sure. So I don't envision that being part of the uses out there, but -- it certainly is remote but --

CO-CHAIR HAYES: But you could do it with a UXO technician with you.

MR. GEMAR: That's even scarier, I think, but --

CO-CHAIR HAYES: Paula's on tonight, you gotta admit that. She's been rolling them out.

MR. GEMAR: She's thinking.

CO-CHAIR HAYES: Feasibility study. How do you conduct a feasibility study on recommended land use controls?

MR. GEMAR: Well, I think in this case it's really an evaluation of whether you do no action, which means that you just turn loose the site and don't do anything. And land use controls themselves are a set of elements that, you know, together constitute an approach, basically an administrative approach as opposed to an engineering approach to reduce risk. So it's really an either/or. Either you do nothing, which we don't think would be appropriate given the history.

CO-CHAIR HAYES: Right.

MR. GEMAR: Or you, you know, implement some administrative controls, in this case land use controls.

CO-CHAIR HAYES: And the signage, educational signage would include, not necessarily a prohibition, but a recommendation against metal detecting?

MR. GEMAR: You know, that certainly would make sense to let people know that not only is digging not required, but you don't want to remove items as well. It's the "If you didn't drop it don't pick it up" kind of rule that we always try to use when we have visitors to any of the sites on the western part of the island, you know, you have no business picking something up if you didn't put it there.

CO-CHAIR HAYES: Are you going to recommend within those land use controls or are you looking at any type of monitoring for a period of time or any type of, type of constructed access that would limit, reduce risk of exposure?

MR. GEMAR: Well, I think that needs to be looked at similar to the Western Early Transfer Parcel. We do have a monitoring element, an O&M element for the Western Early Transfer Parcel. We also have, as of course a few know already, we have a trail that was implemented as part of that remedy, so those elements certainly deserve to be looked at as part of the feasibility study.

CO-CHAIR HAYES: And I would hope as well, I won't give up on the idea of -- in fact, you might be able to go to one of my blogs, I've been busy blogging this month on, about Mare Island, stupidly and otherwise. But I did begin to write about the idea of a -- the need for an

educational facility or mechanism of some sort, whether it's a bomb museum or whether it's a, you know, some other type of -- maybe you got a smart phone app that you can download that can give you a thrill and some education while you're at it. But I would hope that you'd also be considering some of those alternatives within your land use control notions.

MR. GEMAR: Okay.

CO-CHAIR HAYES: I'll just keep on going on the record for that. Because I don't want to go to Hawthorne, Nevada more than once to see their bomb museum. On some of these exposures you end up on the human health risks, you do have risk to dermal and ingestive exposure -- I mean exposure that would end up with an increased risk. What do you do in a situation like that when it's really basically background? Do you just tell workers to wash their hands or something like that, or like, sure, they don't do it at hospitals, why would they do it out here? I mean -- and then who bears the -- you know, what's the alternative? You see all these nice numbers and you did a great presentation, you know, of actually communicating information about it, more so than anybody else I ever have seen give presentations like this, you're very good.

MS. TYGIELSKI: Very good.

CO-CHAIR HAYES: You always have been very good at giving kind of technical things in lay terms, but what are we doing? What do you do with this?

MR. GEMAR: Well, again, that would have to be looked at in the feasibility study. Considering that it's background, you know, generally there's really not much you can do to address the risk essentially if it's in a risk management range. You know, typically that would be, I think, considered acceptable within that range, especially if it's at background levels.

CO-CHAIR HAYES: But is there anything that you would do, like where in the other cases where there is land use controls, include information that's supposed to be communicated to workers if they're working underground or something like that; if it's background you're not required to, I guess, put this information in a land use control, so there wouldn't be any way that a worker would know that background alone is a risk in these areas.

MR. GEMAR: I'll have to get back to you on that one, Myrna. I'm not sure myself if that would be appropriate for putting in as part of the land use controls any kind of administrative notifications when workers are excavating. I would doubt that there is any mechanism in place currently on Mare Island for utility workers, for example. No, it's a good question. I'm not sure I know how to answer that one yet.

CO-CHAIR HAYES: Well, I don't expect you to. You're not alone in not knowing what to do with how to communicate to common people what types of exposures they might encounter or experiences they might encounter out here. You know, like someday there will be that app. I mean, maybe I'll do it, you know. Sure. Come over here and don't stand under this tree cause you'll get pounded by owl pellets. The other thing -- the last thing actually. On page 31, for example, you mentioned these high TRV risk assessment for critters, killdeer and salt -- well, killdeer on this one. But you mentioned salt marsh harvest mouse also.

MS. TYGIELSKI: Chromium has it too.

CO-CHAIR HAYES: When these are elevations that are a little higher than background, what do you -- what do you normally do about something like that? You can't go around and scoop up manganese and whatever this other one is.

MS. TYGIELSKI: Or chromium.

CO-CHAIR HAYES: Chromium.

MR. GEMAR: Again, I think it will be, you know, a discussion with the regulators, you know. For these that are very close in terms of ambient concentrations and where the resultant hazard quotients are only marginally elevated, I think the general consensus typically would be that those don't require any further removal action, for example. We think that the previous removal actions done under the time critical removal action really brought the site, you know, the statistical average down to background or darn near, and so we don't think there's much more benefit to be gained by, you know, taking a few more scoops here and there. But that, you know, is going to be part of the evaluation once the regulators get a chance to digest the RI report. And, of course, with your feedback here we'll take that into consideration too, make sure that we can answer the question when it's being evaluated.

CO-CHAIR HAYES: All right. Thank you.

MR. GEMAR: Okay. Anything else? All right. Thank you.

**III. PRESENTATION: *Implementation of Remedial Actions at Building 461, IA-C1***  
**Presentation by Steve Farley (CH2MHill)**

CO-CHAIR LEAR: Okay. Well, so I guess we can move on to our next presentation by Mr. Farley. He's going to talk about the Implementation of Remedial Actions at Building 461, which is in Investigation Area C-1.

MR. FARLEY: Thank you.

CO-CHAIR LEAR: You're welcome.

MR. FARLEY: So here's our agenda for tonight's presentation. I'm going to go through a quick description of the building. Summarize the selected remedy from the Final Feasibility Study/Removal Action Work Plan that was prepared in 2009. Describe the completed actions. And then talk about what's coming up next. And then answer any questions.

So here is the location of Building 461. We're sitting tonight, we're right in here, Building 461 is just to the south of us. Here's Building 461 a little bit closer. You can see where it is relative to the Strait and relative to Nimitz. Here's a view of Building 461. This is the north and west sides of the building, and this is Nimitz Avenue right here. The building that we're in is off to our left. Building 461 was constructed in 1932. The building itself is about an acre. The 461 Area, which is the defined site based on the Navy's Group 2-3 definitions, is about two acres. And the green area, this green area is the Building 461 Area, and Building 461 is in here.

Used primarily for a number of different activities associated with the battery shop, manufacture of batteries, charging, maintenance, repair, scrap operations. The problem is lead in the crawl space underneath Building 461. So between the bottom of the floor -- it's an elevated floor -- between the bottom of the floor and the soil surface underneath, various piping leaked and deposited a precipitate on the dirt floor underneath the building floor, and it has piled up. I'll show a photo of that in just a moment. And then also there's lead that got into the soil. And you can see the concentrations here ranged quite a bit from about ten to as high as 170,000. And this ten is, you know, it's really down -- like Dwight was talking about, it's down near the ambient number, it's actually a little bit lower than the ambient number. The other thing that's important is when looking at the vertical distribution of lead, it's the highest concentrations are near the

ground surface, and so that goes back to how the lead got there. Basically the water or the wastewater came out of the pipes and fell on the ground surface, and the lead precipitated out with the acid precipitate and didn't soak that far into the ground.

The work that was done was done according to the Feasibility Study/ Remedial Action Work Plan. Here's a view of the crawl space. You can see the underside of the building floor. So this is the concrete floor on the underside. These are the support columns. For scale you can see that this is about three feet across. Same thing here. Some of the wastewater piping that conveyed the wastewater from the operations of the building. This is the actual precipitate that I'm talking about, this battery acid precipitate. It's a light-colored, and it sort of has the consistency of sugar or salt. It's moister than that, but it has that kind of consistency. And this is the material that had the highest concentrations of lead in it.

The selected remedy from the feasibility study removal action work plan was to remove the precipitate that was on top of the soil surface in the crawl space, and then to remove the lead contaminated soil that was in that crawl space. The goal is to achieve the 800 milligrams per kilogram concentration that's based on the U.S. EPA Region 9 Screening Level. And then, of course, what we did remove would then be hauled off-site to an appropriate landfill. The other part of the remedy is to include the Building 461 Area into the investigation-wide land use covenant that will be used to prohibit sensitive uses. And I've listed the primary components of those sensitive uses that will be prohibited; residences, hospitals, daycare facilities, and schools for children under eighteen.

To date, up through June we've removed a little more than 500 tons of the battery acid precipitate and the lead contaminated soil. It was hauled off-site to Kettleman. The excavation depths range from about a half a foot below the original ground surface down to about three feet below the ground surface.

339 confirmation samples were collected on a ten by ten grid. There is a figure -- in addition to the handout there is a figure, eleven by seventeen figure that is both one of the slides and it is also an eleven and a half version of the map that I have up here on the board. And these dots represent the locations where we collected confirmation samples. In general, there were three to five samples collected from each location. In some cases a sample would be collected, it would still exceed the cleanup level of 800 milligrams per kilogram, and so we would go back and do some over-excavation and then collect another sample. The confirmation samples were collected in two ways. One was on a ten foot by ten foot grid across the entire area where we were doing the removals. And then when we did an excavation, we would go in and collect a sample halfway down the sidewall of that excavation. So if the excavation was three feet deep, we'd collect a sample from one and a half feet down. If the excavation was a foot deep, we would collect a sample from half a foot below the ground surface. All those samples were analyzed for lead.

Here's a view of equipment and methods that were used to remove the soil and the battery acid precipitate. The large vacuum truck on the outside of the building, this is on the west side of the building. And a worker would move this large diameter hose, approximately eight inches in diameter, along on the ground surface and literally, like a vacuum cleaner, suck the precipitate up. It would come out the pipe, and then it would go out on the outside, and there was a conveyor belt that was used to haul -- to move the extracted battery acid precipitate into appropriate containers. And if you look back or think back to the photos I showed early on, you

can see where the column is stained, which is where the battery acid precipitate had accumulated underneath the floor. So you can see in this particular case, if this is three feet across, there's at least three to four feet of battery acid precipitate that had accumulated and then been removed. It's tedious work. These hoses here are smaller scale versions of the hose that the other gentleman was using. And here again you can see that, in this particular case, we removed not only that portion of the battery acid precipitate, but we've actually gone down another foot to a foot and a half, maybe two feet below that original ground surface. The other thing that's interesting here is, and I'm not a structural engineer, but you can see where the battery acid precipitate has at least had some small effect on the outside of these columns.

Of the 339 confirmation samples that were collected, 332 meet the cleanup goal of 800 milligrams per kilogram. There were seven locations where confirmation samples exceeded the 800, and the concentration range of those samples is 1,300 to 5,300 milligrams per kilogram. There are seven locations. There are six locations along the western wall of Building 461, and there's another location on the east side. If you look at the eleven by seventeen figure that I handed out, you'll be able to see the purple areas where those -- which encompass those seven locations. So, again, here's a copy of the eleven by seventeen --

CO-CHAIR HAYES: Gil had a question.

MR. FARLEY: Yes, Gil. Do you need me to go back a slide or --

MR. HOLLINGSWORTH: No, that's fine. So the purple areas continue to exceed?

MR. FARLEY: Yes. And I was just getting there, so that's a nice segue. The green areas are inside the building, so this is the building wall right here. The green areas are those areas, the photographs I showed are all within this area. So the confirmation samples for the areas shown in green all meet the cleanup goal of 800 milligrams per kilogram. As we were working underneath the building, we collected samples right up literally against the interior wall of Building 461. And in the locations that I mentioned, the seven locations, six of which are along here, we had concentrations that exceeded the 800 milligrams per kilogram cleanup goal.

Well, there's a wall there, there's not much you can do. But we actually did the vacuum extraction to the point where it actually daylighted on the other side of the wall. So then what we did is we went out and collected another row of samples adjacent to those areas where we had the exceedances, and collected another set of samples along here and up here. And what we found was that there were some exceedances of the 800 milligram per kilogram value on the outside of the building as well. And so those areas are encompassed within these seven areas; one, two, three, four, five, six, and seven. The fact that there are seven locations that exceeded the confirmation sampling cleanup goal and seven areas that are going to be excavated is a coincidence. So there is one sample here and there's one sample here. But you can see in here there's on the order of twenty samples at different depths. And because of the shape and location of these various samples, it was -- it was easier to draw a box around it and excavate the entire area. So we're being conservative, I guess, is the point I'm trying to make. Does that answer your question, Gil?

MR. QUIGLEY: Is this building -- is this building not slated to be torn down?

MR. SILER: It's scheduled for demolition.

MR. FARLEY: So this talks a little bit more about a couple of the questions that Gil had. On the outside of the building -- so in these areas here and the areas over here -- there were a total of

180 samples that were collected. In a number of places the samples were collected up to three feet below ground surface. The distribution of the lead in that soil shows that the highest concentrations are really either at the surface or within about a foot or foot and a half below ground surface. And, again, all of those samples were analyzed for lead, and those samples were collected along the west and east sides in the areas that I've already shown in here and in here. So these 180 samples were collected in the areas shown within the purple. And the areas outside of that -- and if they're outside of the purple areas it means they met the cleanup criteria. And as I mentioned a minute ago, the results show that the lead is generally confined to the upper couple of feet. The concentrations in these additional 180 samples ranged from 830 milligrams per kilogram up to 26,000 milligrams per kilogram of lead. So in the outside of the building, in the purple areas, concentrations are as high as 26,000.

CO-CHAIR HAYES: Still?

MR. FARLEY: Yes. And we're going to now -- okay. Great segue, Myrna, I gotta tell you.

The pathway forward. We're going to conduct additional excavation on the outside of the building in these seven areas, the areas shown in purple here, and on the handout that I gave you. Those areas to be excavated are based on the 180 samples that we collected on the outside of the building. Yes, Paula.

MS. TYGIELSKI: Why didn't you collect samples on the outside of the building on the north and south sides? There's the east and the west, but why not --

MR. FARLEY: Because all of -- it's a good question. Because all of the samples up against the wall and down here all met the cleanup criteria.

MS. TYGIELSKI: Okay.

CO-CHAIR HAYES: And did you sample for anything but lead at this site?

MR. FARLEY: No, because that was the driver for risk was lead. Now, the samples, the previous samples that were done before the Feasibility Study/ Remedial Action Work Plan was developed, were analyzed for a whole host of constituents, primarily metals.

MS. TYGIELSKI: Any explanation about why some of these areas are higher? I mean are they outside a window and things got thrown out the window or painting on the walls or what?

MS. D'ALMEIDA: Drains, probably drains on the floor.

MR. FARLEY: Yeah, probably drains on the floor, drains of one kind or another. There are some utilities that run along here. And if you look at the -- and this is very much a generalization. But if you look at the distribution of some of the lead concentrations over here, it looks like there's some relationship, generally speaking, with some of the utilities. So it's very possible, and I'm speculating, that there may have been some liquids that were associated with this battery acid precipitate, it precipitated with a liquid, and that may have found its way along, you know, some kind of backfill or some kind of preferential pathway just in the native soils.

Okay. So based on the distribution both vertically and horizontally of the data, of the lead for the 180 samples, and looking at the dimensions of these areas, we think we're going to end up removing approximately one hundred cubic yards of lead impacted soil. Of course, the final quantity will be based on the final confirmation sample. So you can see that we're looking at something like 20 percent of the total that's been removed that will be removed on the outside of

the building. The work that we're going to do is going to be consistent with the requirements of the Feasibility Study/ Removal Action Work Plan just like the work that's already been performed. And then once all that work is done, assuming that we get to the limits of the soil with concentrations exceeding the cleanup goal, we'll prepare an implementation report and a request for closure for the lead and soil at 461. So I'd be happy to answer any questions.

MR. QUIGLEY: Can any of this stuff be on like -- this is all cement underneath the building and with the pilings and that, this stuff has kind of collected on all that; so when they demolish the building, will they have to go back for any that has fallen off? Or are you, like, scraping the underneath of this building that could have collected this as well?

MR. FARLEY: So this isn't the floor of the building.

MR. QUIGLEY: No --

MR. FARLEY: This is soil. And this area up here doesn't have any battery acid precipitate on it. What happened is the stuff leaked out of these joints and fell on the ground. So it's -- it didn't -- I think one of your questions might be that did it come through cracks in the floor, did it accumulate on the floor?

MR. QUIGLEY: Right.

MR. FARLEY: There isn't any evidence that that happened. What we do know is that where we find these large piles it seems to be related to this old piping, the old drainage system. The piping drained out through the piping and the floor, and then it went off to the north side of -- what is that?

CO-CHAIR HAYES: I don't know.

MR. FARLEY: H? I? I forget what it is. This street right here, what is that? E Street. On the - - so here's some of the IR-14 pipelines that were part of the Former Industrial Wastewater Piping System. And on the north side of E Street there was a neutralization facility where the acids that were used here and were disposed of as part of the normal manufacturing and refurbishment of the batteries, it would be captured over here and then it would be neutralized, and that's part of the Installation Restoration Site 07/20. Does that answer it for you? Okay. Anything else? Yes.

CO-CHAIR LEAR: Is there -- what about inside the piping? Is that material inside the piping there?

MR. FARLEY: That's been flushed.

CO-CHAIR LEAR: It's been flushed already.

MR. FARLEY: Yeah. Okay. Thank you.

CO-CHAIR LEAR: Okay. Well, if there are no more questions for Steve, then we enter our first public comment period. Are there any comments?

(NO RESPONSE.)

CO-CHAIR LEAR: Okay. So we can take our first -- our ten minute break.

(Thereupon there was a brief recess.)

#### **IV. ADMINISTRATIVE BUSINESS (Myrna Hayes and Janet Lear)**

CO-CHAIR LEAR: Okay. So we can move into administrative business. If anyone has any comments on the draft meeting minutes from August, please let Myrna or myself know. Did you have any other administrative business?

CO-CHAIR HAYES: No.

#### **V. FOCUS GROUP REPORTS**

CO-CHAIR LEAR: No. So we can move into focus group reports. We have the community report from Wendell Quigley.

##### **a) Community (Wendell Quigley)**

MR. QUIGLEY: Yeah. Today I had a delightful walk with members of the community and some agencies, and it was a delightful walk around the --

MS. NAITO: Trail.

MR. QUIGLEY: -- the trail, yeah, the new trail around the big mountain out here on the island. And I'm just --

CO-CHAIR HAYES: It's a little mountain.

MR. QUIGLEY: I'm just looking for an opening date so I can pass that around. And I am going to recommend to all the people on the island to bypass growing their local weed in the dredge ponds, I don't think the mice can handle it.

(LAUGHTER.)

##### **b) Natural Resources (Jerry Karr)**

CO-CHAIR LEAR: Okay. So the next group is natural resources. Does anybody take that on when Jerry's not here?

CO-CHAIR HAYES: Nope. These are just made-up focus groups now because we don't -- nobody has any reports anymore. Just if we have to activate them we will. I just wanted to let you know right while we're mentioning Jerry that he did e-mail me, he's been in the hospital for a week with double pneumonia related to his cancer coming back. So he wishes you well and wishes he could be here, but he's figuring Red Tail Ale might cure him.

##### **c) Technical (Paula Tygielski)**

CO-CHAIR LEAR: Okay. Technical, Paula.

MS. TYGIELSKI: No report.

##### **d) City Report (Gil Hollingsworth)**

CO-CHAIR LEAR: Thank you. City report.

MR. HOLLINGSWORTH: The Navy has completed the Finding of Suitability to Transfer for Parcel II which is the water side, across G Street water side, or the western -- the eastern side along the Napa River. Transfer parcel X-B(1) and X-B(2). That's if you go out to the golf course and jump over the western end top of it, you'll probably land on one of those two, it's right at the foot of the golf course but down on the water -- down on the area of the Dredge Pond Area. And then something we've talked about here for a number of times, and that would be the

Sanitary Sewer Outfall that's out in the bay out there. Those were all parcels that were kept back when we did the original transfers of ESCA east and ESCA west. And so this just increases the amount of property that the Navy has transferred. We were at 73 percent, so this will jack it up to about the 76 to 78 percent. So, you know, we've got about 20 percent left. But it's, of course, 20 percent of the hardest part yet to do. And that means -- with the FOST means that we'll be opening escrow on those parcels and transferring 'em very possibly between now and the time we meet again. But we are -- everything is complete as far as the deeds go, except the approval of the U.S. Fish and Wildlife, and we're still waiting for their approval. So they don't move very fast. So we will get that when we get it.

CO-CHAIR HAYES: Gil, what parts of those will then transfer to -- will these all go to the City or some of these go to --

MR. HOLLINGSWORTH: All of them.

CO-CHAIR HAYES: And then some will transfer to the state and back?

MR. HOLLINGSWORTH: No, that's not the way it goes anymore. Now, it goes to the City, and then we have to establish public trust over the parcels that are going to be public trusts, which would be the XB ones, twos, and the other -- what do you call it? -- the outfall. There is a conservation easement. And this is the first up here in Reuse Area 2. Of the 60.7 acres, I want to say it's 20.2 acres or something like that of a conservation easement, I don't remember exactly how many acres. And we have never transferred a conservation easement or a property with a conservation easement on it yet, so this is going to be something new that we're going to have to walk through. But we've already done a review of all the deeds and of the meets and bounds descriptions and what have you, so it's just a matter of -- all the lawyers have agreed we can do it the way we're doing it. By the way, the transfer in Reuse Area 2 includes that pier up in the north end --

CO-CHAIR HAYES: Right.

MR. HOLLINGSWORTH: -- which was of interest to somebody some weeks ago. I forgot which one of the regulators, but one of 'em was interested in it.

CO-CHAIR HAYES: Carolyn, the U.S. EPA. Can you -- so what do you mean by it doesn't then transfer to the state anymore? You just put a --

MR. HOLLINGSWORTH: The state has --

CO-CHAIR HAYES: They don't grant --

MR. HOLLINGSWORTH: -- by legislative, by law has transferred the property to the City for operation maintenance and what have you, but we're required to maintain public trust over it -- over the property that is designated for that.

CO-CHAIR HAYES: But it doesn't go to them and then get granted to you?

MR. HOLLINGSWORTH: No, we have to establish the public trust by legal means.

CO-CHAIR HAYES: Okay. Carolyn, did you want to comment on what he just mentioned? Because I did get a copy of your letter to the Navy.

MS. D'ALMEIDA: Yeah, I just want to know --

MR. HOLLINGSWORTH: Looking in the wrong direction. Look across, don't look at me.

MS. D'ALMEIDA: Yeah, I just wonder is the asbestos situation being monitored, and is it going to be addressed or how it's going to be addressed.

MR. QUIGLEY: Well, let me take that one.

MR. HOLLINGSWORTH: There are land use covenants associated, but I don't know if that's sufficient.

MS. D'ALMEIDA: Right. Well --

CO-CHAIR LEAR: The building is secured, there's signs placed on it. The actual abatement of the asbestos goes to the City. I mean, that's their responsibility when they decide that they want to redevelop it -- redevelop that property.

MS. D'ALMEIDA: Well, what is the -- what will happen if somebody goes back in that building and continues to vandalize it, and then what's the situation going to be? Is there money in the budget even to address it?

MR. HOLLINGSWORTH: I think she answered it. If we do anything to that property other than let it sit there, then we would have to remediate at least any friable asbestos in the building, unless we tore down the building which would probably be the best move. But it would have to wait until such time as we develop it.

MS. D'ALMEIDA: Right. But what I mean is in the interim, if somebody breaks into the building again, is somebody monitoring the building to make sure that nobody's going in there? What if somebody breaks into the building, what's the plan in the interim before you decide what you're going to do with the building?

MR. HOLLINGSWORTH: There's signs up that say don't go into the building because there's friable asbestos. There's locks on the doors. The doors are boarded up. There's a gate down at the end of the pier. We've got locks on the gate. There's signs on the gate that say don't go out there. Short of putting a sharpshooter on top of a building to knock 'em off when they walk out there, that's about the best we can do on it.

CO-CHAIR HAYES: Or clean it up, God forbid.

**d) Lennar Update (Steve Farley)**

CO-CHAIR LEAR: Okay. So we have moved onto the Lennar update.

MR. FARLEY: Thank you, Janet. I have our eleven by seventeen handout for this month. Starting in the lower left corner there's a number of documents that are in review. Just to highlight a couple of them. The Draft Remedial Design Work Plan for IR-15, that's important because we've -- we're just about ready, I think, to submit the Final IR-15 Feasibility Study/ Remedial Action Plan for DTSC's signature, I think in the next week to ten days, something of that order. So that Remedial Design Work Plan is the next document leading towards actually constructing the remedy. Upcoming public comment periods. The IA-C2 Remedial Action Plan, that public comment period is coming up. We're getting ready to submit that report to the agency sometime this month. There was a request, I think, Myrna, that you made through Neal for an update on the Crane Test Area work. So I'd like to spend just a minute or two focusing on that.

The three photographs on the handout are all for the Crane Test Area, also known as IA-B.1. The work that's going on out there right now is excavation of some soil that had soil gas -- TPH

gasoline soil gas above cleanup criteria. So we did some excavation of that. We're also removing some existing utilities from within the footprint of the Crane Test Area. All that's being backfilled, brought up to grade, appropriate compaction, and then there will be a three foot soil cap that will be placed across the top of the Crane Test Area. So the photographs here just show you the status of the various excavations that are being performed. In the upper left corner there's a trench that went virtually the whole length of the Crane Test Area north to south, that's been dug here. It's being backfilled. You can see the compactor in the background of the photo in the upper left. Down in the lower left there's another compactor working on soil that's been backfilled. The dark area there is a liner that we installed between the unexcavated material, so the original soil within the Crane Test Area and the backfill that's coming back in. In the upper right is a photograph of --

CO-CHAIR HAYES: A zombie.

MR. FARLEY: A zombie?

CO-CHAIR HAYES: Isn't that the way some zombies look?

MR. FARLEY: Kind of looks like a dinosaur background to me.

CO-CHAIR HAYES: In the foreground, the guy.

MR. FARLEY: Okay. Looks like a zombie. Certainly the right color, huh? That is -- he's standing in an area where there's a clean utility corridor that's been installed. And the purpose of that is to allow for installation of future utilities once the area becomes developed or while it's being developed. So rather than future land users having to work through the original soil that has a certain amount of debris in it and, at least potentially, and has the potential for lead to exceed the established cleanup levels, the clean utility corridor was to allow for future development without any major cumbersome oversight or restrictions. So that covers my update for this month.

CO-CHAIR HAYES: So will that section of the Crane Test Area not have a land use control on it then, that will be clear?

MR. FARLEY: No, the whole thing will have a land use covenant because it's all going to be capped.

CO-CHAIR HAYES: Oh, all right.

**e) Weston Update (Dwight Gemar)**

CO-CHAIR LEAR: Okay. Weston update.

MR. GEMAR: Okay. Hopefully everybody had a chance to grab a handout that's eight and a half by eleven with some photographs on it in the upper left. I just have a couple of updates on documents. We did receive comments on a couple of the IR-05 documents from the agencies so we're taking a look at those. And then we also are getting the Draft Final Remedial Investigation Report that I summarized today in my presentation. That's going to go to the Navy tomorrow for delivery on Monday for their review. And then we're also working on a couple of other documents related to Investigation Area H1 as we wrap up the remedial work out there.

And then along those lines, the next paragraph, we did finish the perimeter road and fencing around the containment Area. And we also finished the placement of a two foot thick soil cover around the -- on the upland areas outside of H1. And we've also hydroseeded those areas. As

you can see in the photo, they spray a mixture of seed and mulch fertilizer in a green dye so they can kind of keep track of where they've been. So that's been ongoing. And they'll wrap up the hydroseeding tomorrow in H1.

Also, there's a few folks that were able to check out the trail -- before the RAB meeting we had finished the trail. We've put in the final grading and construction of a kiosk which is located in the photograph in the upper right-hand corner at the trailhead. And we've put in a parking lot and some security fencing. We do have some benches that we still need to install. And then we also have installed some interpretive panels along the trail, a total of ten panels. You can see three of them located at one of the overlooks on the photograph in the middle right that overlooks the San Pablo Bay. And each panel has some, you know, historical and other related information about the setting that you're either standing at or looking at. So those are along the trail and provide some education. And I think they turned out very well. And Myrna was involved in the design and -- of the panels.

And down at IR-05 in the lower right we have been doing some backfilling and grading of previous excavation areas that I described in my presentation. So we're bringing that back up to grade, although we're adjusting the grade so that we can grow some pickleweed in those areas. So it will return to a nice pickleweed habitat in the southern part of IR-05. So that's what we've been up to.

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

CO-CHAIR LEAR: Regulatory update. Janet.

MS. NAITO: Okay. Since our last meeting I have processed 26 alerts from our land use covenant monitoring system to ensure that activities within land use restricted areas are conducted appropriately. We've approved the closure of the interior of the Installation Restoration Site 14 pipeline within the Eastern Early Transfer Parcel. We did not receive any comments on the Feasibility Study and Remedial Action Plan for IR-15, so we anticipate -- we've asked CH2M Hill to go ahead and finalize that report, and we anticipate approving that mid-October.

CO-CHAIR LEAR: Water Board report.

MS. WELLS: Janet and I had the opportunity to go out and check out the trail that Dwight was just speaking about with Myrna and a few other people. And Myrna's dog was very upset that no dogs are allowed on the trail, and so was in the car barking loudly.

CO-CHAIR HAYES: But she stopped.

MS. WELLS: Well, either that or we didn't hear her anymore because we were over the hill.

CO-CHAIR HAYES: She stopped, Dwight is a witness.

MR. GEMAR: Gave it up.

MS. WELLS: So in the last month, let's see, for the -- on the Lennar side of things, I've reviewed the IR-15 Remedial Design Work Plan. I've reviewed three fuel oil pipeline reports, and we're preparing a no further action on one of them, and provided comments on the other two to CH2M Hill. I have read a sewer pump station report and a UST removal work plan and sent an approval for that. And I'm working with Janet on a land use covenant for one of the parcels. On the Navy side, the Finding of Suitability to Transfer, I reviewed that and the Draft Action

Memorandum, and the DRMO Completion Report as well. And just a reminder that I won't be here at the next meeting, I don't know if there will be a representative. But I'll make a point of sending any update I have to the RAB co-chairs.

CO-CHAIR LEAR: Thank you. Carolyn, report from the EPA.

MS. D'ALMEIDA: I've been working on getting PCB closure letters completed for CH2M Hill. Went out last week with Jenny Lindquist and toured, I don't know how many sites. It took a few hours. But this week I completed all the letters that I had, which was maybe seven or eight different letters that were outstanding and had been waiting for a while. And I've got everything done for CH2M Hill on the PCB sites except for Building 680, and that's one I'm going to work on tomorrow. So we're making progress.

## **VI. CO-CHAIR REPORTS**

CO-CHAIR LEAR: Okay. Co-chair's report. Myrna.

CO-CHAIR HAYES: Sure, I'll start. You know, those of you who are still involved in the cleaning up the South Shore, I just keep forgetting to mention that one of my -- the lady friend who grew up at the Naval Ammunition Depot remembers a major dredging during World War II all along the piers on the river side, and then the piping was set up and it went around to the South Shore. And she doesn't know whether it was free flowed into the South Shore Area or whether the piping extended on around. I don't know if you can historically, you know, look at historical photos or records -- well, we don't really have records to show that. But that just seemed to me like that could well have explained how all that wide variety of munitions got out on the South Shore. I thought that was a really interesting story and I keep meaning to tell you about that.

On October 9, that's our next upcoming second Saturday access day at the south end of Mare Island, we have a historic South Shore hike given by Kenn Browne and the Sierra Club escorted by the Navy. That's at 9:30. And then, kind of neat, we're going to go ahead and offer a guided bird watching walk on the new trail, the San Pablo Bay trail, from 4:00 to 6:00 p.m. that same day, led by Brian Collett, our naturalist on the Mare Island Heritage Trust Board. And he'll be focusing on shore birds and raptors, which are the two birds that will be in right about then. And I'm hoping that Wally and Robin and others will begin to -- bird nerd people that you all are -- will begin to guide more outings out that way as -- so that that trail, we can kind of advertise, you know, putting that trail really on the map.

And by the way, several people have asked me whether it's going to be part of the Bay Trail. And, in fact, the Bay Trail requires that the Bay Trail be a multi-use trail, so it requires bicycle access as well as pedestrian access. So that trail will not be eligible for inclusion in the Bay Trail because it has been limited by its purpose and its location to wildlife viewing, trail more like Point Lobos State Reserve, other places like that that are really focused on wildlife. And yeah, that's why Ammo was sitting in the car tonight because she couldn't go out because we don't want to see dogs out there either harassing the little salt marsh harvest mice.

I wanted to mention that Miguel Buchwald over here sitting here in the fancy blue chair -- you won't get to sit there for long, Miguel -- has requested to become a community member of the Restoration Advisory Board. He does live on Mare Island with his wife Sandy, and we got a chance to work together on Coastal Cleanup. There were six of us who came out and worked hard on the area between the causeway as far north as we could get. And it was remarkably

clean. I have to say, having founded the Solano/ Vallejo and later Solano and Yolo Counties Coastal Cleanup Day, and managed it for seven years, I've seen some pretty bad dump spots. And, of course, those will bring joy to your heart as a Coastal Cleanup coordinator, because at least there was something for your volunteers to do. But I was very pleased, I think we all were, with how little dumping really had gone on up there. So that's pretty cool.

So before Miguel can be considered by the community members of the RAB because that -- we're the only ones who vote for community member inclusion in the RAB, we need to do -- at the next meeting do two things. One will be -- we were supposed to do this tonight but we didn't get it on the agenda. We need to accept a new member into the nominating committee. The committee is made up, currently, of the RAB co-chairs, Mike Coffey, and myself -- well, I am co-chair; right? -- Mike Coffey, and one regulator. And the regulators could choose amongst themselves who they want to represent them. Chip Gribble was our regulator representative. And there's been a nomination, I guess, put forward from the three of you that Carolyn d'Almeida would serve in that role on the nominating committee. So we need to do two things next month, and I'm not quite sure how we're going to do that. I think what we'll do is we'll plan to take a vote regarding the new nominating committee member, and then maybe at the break the nominating committee can meet to make a recommendation to the community members of the RAB regarding Miguel's application.

And then the only other thing that I'll mention is that I'm sure maybe you've already put in your notes -- oh, yes, you have, so I won't say it -- the RAB tour. I'll let you go further. Oh, and on that second Saturday that we're open, we're open 9:00 to 7:00. That will be the last 9:00 to 7:00 because the next time will be a 6:00 o'clock closure, I guess, or even 5:00 o'clock. That's how dramatically time changes. So be sure and come out to the park, to the preserve.

CO-CHAIR LEAR: Okay. Now, for the --

CO-CHAIR HAYES: Oh. Oh.

CO-CHAIR LEAR: I'm sorry.

CO-CHAIR HAYES: Stop, she can't quite yet. I have flyers for the Lost Boats Memorial, the fourth year that we will be doing a memorial service on Sunday, October 10, in the afternoon, to honor the crews and the boats that were lost at sea -- built at Mare Island and lost at sea during World War II. So here's a flyer that will tell you what the program is. And Larry Maggini from Weston Solutions will be giving a presentation on those seven boats again this year.

CO-CHAIR LEAR: You sure? Okay. Okay. Now, for the Navy report. The Navy is in the planning phases to continue the decontamination work for the munitions manufacturing Buildings A-215, A-216, A-248, and A-280. This field effort is scheduled to begin in November, and it's expected to be completed in February of 2011. At the end of this work these buildings will be certified as free of munitions constituents. These were buildings that were used for munitions manufacturing. This decon work is part of the caretaker's site office. It's a maintenance action and is not part of the Navy's environmental cleanup program. But I know that there is interest with the RAB on this topic, and so we wanted to keep you informed. There's two pictures in here of two of the buildings. And I'm hearing a question coming?

CO-CHAIR HAYES: Yeah, well, it's not a question, it's just a comment that it doesn't really matter according to the RAB law what your source of environmental cleanup work is, all activities that have an environmental impact or are part of an environmental program can be

reviewed by the Restoration Advisory Board. So it doesn't matter which office is doing what, I'd appreciate you keeping us informed about it. And actually we'd like to have a presentation about this work. You know, I got a chance to see the guys at work, but I think it would be really interesting for folks here to actually have a presentation.

CO-CHAIR LEAR: I'll look into that. And based on a discussion Myrna and I had, if they are out here in November, as is planned, later on in the paper here I do talk about we're going to have the RAB tour early in November, and if they are here then we'll make that part of the tour, and possibly even if they aren't here, if Patricia is available perhaps she can give us a little update on what's going on.

We're also preparing work plans to conduct some more sampling at IR-17 Building 503 Area. This will probably occur later this month. We have new groundwater wells to be installed. Those are to be placed to monitor the recent non-time critical removal action excavation areas. And we will also be taking samples of soil and soil gas. In addition, that field effort will be collecting samples from the adjacent non-tidal wetland area to support additional risk assessment. And those field activities are expected to end in November as well.

The Navy has submitted four documents during this last month. One of those is the FOST that Gil had mentioned earlier. Also the MEC Munitions and Explosives of Concern After Action Report for the DRMO. One PCB site closure report for Building 163. And the final ROD/ RAP for Investigation Area A2.

We received comments from DTSC on, it looks like, five different documents. Thank you. And we also received comments from the Regional Board on three documents. And that's all I have for the Navy report. And now we have another public comment period. If anybody has additional comments?

(NO RESPONSE.)

CO-CHAIR LEAR: And also Myrna pointed out that I didn't provide the date of the RAB tour on the monthly progress report. That will be on November 6th. And we'll be providing more information on that as we get a little bit closer.

CO-CHAIR LEAR: I made it through my first meeting. Thank you everyone for coming.

(Thereupon the foregoing was concluded)

**LIST OF HANDOUTS:**

- Presentation Handout – Remedial Investigation Results and Conclusions – Investigation Restoration Site 05, Dredge Pond 7S and the Western Magazine Area
- Presentation Handout – Building 461 Area Removal Action Update and Path Forward, Investigation Area C1
- Presentation Handout – Features within the Eastern Early Transfer Parcel (EETP) – CH2M Hill/ Lennar Mare Island
- Presentation Handout – Mare Island RAB Update September 30, 2010 – Weston Solutions
- Navy Monthly Progress Report Former Mare Island Naval Shipyard September 30, 2010