

**MARE ISLAND NAVAL SHIPYARD  
RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES  
HELD THURSDAY, May 29, 2008**

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, May 29th, at the JFK Library, Joseph Room 505 Santa Clara St., Vallejo, California. The meeting started at 7:10 p.m. and adjourned at 9:04 p.m. These minutes are a transcript of the discussions and presentations from the RAB Meeting. The following persons were in attendance.

**RAB Community Members in attendance:**

- Myrna Hayes (Community Co-Chair)
- Paula Tygielski
- Jerry Karr
- Michael Coffey
- Kenn Browne
- Wendell Quigley

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

- Michael Bloom (Navy)
- Marie Dreyer (Navy)
- Steven Peck (Navy)
- Steve Farley (CH2MHill/Lennar)
- Neal Siler (Lennar)
- Gil Hollingsworth (City)
- Linda Rao (Water Board)
- John Kaiser (DOD)
- Dwight Gemar (Weston)

**Community Guests in attendance:**

- Dijji Christian
- Howard Williams
- Bill Stephens
- Jim Mitchell
- Lester Rich
- Jim Porterfield
- Marilyn Wong
- Robert Boyce
- Chris Rasmussen

**RAB Support from CDM:**

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

**I. WELCOME AND INTRODUCTIONS**

CO-CHAIR BLOOM: All right, everybody. We'll go ahead and get started. This clock does work for the first time. Okay. Welcome everybody to the May, 2008, Mare Island RAB meeting. I am Michael Bloom. I'm the Navy Co-Chair and the BRAC Environmental Coordinator.

MR. KARR: Jerry Karr, Vallejo resident, and I'm representing Napa Solano Audubon Society.

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

MR. GEMAR: Dwight Gemar with Weston Solutions.  
MR. PECK: Steve Peck, project manager for the Navy.  
MR. COFFEY: Mike Coffey, RAB member from American Canyon.  
MR. QUIGLEY: Wendell Quigley, RAB member from Mare Island.  
MR. HOLLINGSWORTH: And I'm Gil Hollingsworth representing the City of Vallejo.  
MR. FARLEY: Steve Farley with CH2M Hill representing Lennar.  
MR. RICH: Lester Rich, Historic Ships Memorial, Pacific Operations.  
MR. STEVENS: Bill Stevens, Historic Ships Memorial, Pacific operations.  
MS. WONG: Marilyn Wong, same organization, the Battleship Iowa Project at Mare Island.  
MR. FISHER: John Fisher, Battleship Iowa Project.  
MR. SILER: Neal Siler, Lennar Mare Island.  
MR. MITCHELL: Jim Mitchell, Touro University.  
MR. RASMUSSEN: My name is Chris Rasmussen; I'm a resident of Mare Island.  
MS. DREYER: Marie Dreyer with the Navy.  
MS. CHRISTIAN: Diji Christian, the Shoreline Preserve Advisory Board.  
MR. KAISER: John Kaiser, DOD program manager.  
MR. PORTERFIELD: Jim Porterfield, ex-Mare Islander.  
MS. RAO: Linda Rao, Water Board.

CO-CHAIR BLOOM: All right. Thank you. We're going to go ahead and get started on our first presentation. It is on the Production Manufacturing Area and the South Shore Area. It's a status update on what's coming up and what's been done just recently. And it will be given by Steve Peck with the Navy and Dwight Gemar with Weston Solutions.

**II. NAVY PRESENTATION: *Production Manufacturing Area/ South Shore Area (PMA/SSA) Status Update***  
**Presentation by Mr. Steven Peck, Navy and Mr. Dwight Gemar, Weston Solutions**

MR. PECK: Thanks, Michael. Again, my name is Steve Peck. I'm the project manager with the Navy. And I'm pleased to be here to help support the Mare Island Project.

The past few years I'd worked at the Alameda Project, and I'm glad to be a participant again helping move forward the work here within your beautiful community. Just briefly, my background is I'm an environmental engineer with twenty years of hazardous waste, Superfund cleanup experience, throughout the United States for various agencies. And my degree is within chemical engineering as well as registration. So the projects that I became owner of, as it were, after joining Mare Island, we kind of moved some projects around, and the projects I assumed liability for, if you will, are IR-04, which is part of the F2 Parcel, the PMA, as well as the F1 Parcel, particularly the PMA

SSA/MEC project, Site 17, and the Navy retained condition outside of Building 742, as well as Navy retained condition at the Horse Stables Area.

So as Michael mentioned, we've got actually two projects or two presentations, I should say, tonight. And these are the two projects that I've taken over. And I think without further ado I want to go ahead and turn the microphone over to Dwight. Dwight is going to go over both these projects, and he's going to bring us up to date, or he's going to go back and discuss some of the things that we've done to date. We received funding this past fiscal year to go ahead and move the projects forward, and so I'll leave this with Dwight to discuss both of them.

MR. GEMAR: All right. Thank you, Steve.

So the first of two topics today is the Production Manufacturing Area and South Shore Area update. And here's a photograph of Pier 34. And here are some guys that are probably wondering, "Hey, I thought I was going to see the world and all I've seen is this pier on Tennessee Street." It's a dirty job, but somebody's got to do it.

Just for orientation purposes, the Production Manufacturing Area is located in the southeastern part of Mare Island. It's mostly created on fill of tulle marsh area, and was significantly built out prior to World War II. This area here is called the South Shore Area, and this area was under water. It did not exist prior to the 1930's and 40's when it was filled in to create the small land mass on the south end of the island. Here's a photograph again of a cruiser circa 1952. The Production Manufacturing Area did not manufacture explosives, per se, but they did take explosives and assemble or load the explosives into the components that became the ammunition for these Navy ships.

You can see here the list of munitions processes that were performed at the Production Manufacturing Area. And, of course, loading in the piers, as you can see in this photograph, were common for the ships coming and going from Mare Island. On the South Shore the function was somewhat similar, although a little bit different. You can see here Pier 35 which was also used for loading munitions on ships. There was also some sea mine component manufacturing and assembly. And you can see one of the buildings here that's under construction in this photograph, circa 1941, was also performed at the south end of the island. And you can see one of the buildings that still exist on the South Shore here.

So both the Production Manufacturing Area and the South Shore have a munitions history, as you might expect. There were some Emergency Response Actions in the early 1990s, and this was during utility work. While they were excavating trenches and whatnot, they actually encountered some varied munitions, and that, plus the overall history of the site, leads the areas to be considered an Area of Concern in a 1994 Preliminary Assessment.

Based on that Preliminary Assessment, an investigation was performed in the mid to late 1990s. This investigation was done with handheld instruments similar to what you might see a beachcomber, although a little bit more sophisticated, but nevertheless they operated on the principle that if there was buried metal in the ground they would give off an audible tone. And depending on the strength of the tone, the technician would determine whether that was a significant piece of metal or not. The problem with that is, as we now know, there is a fair amount of not only utilities in the area, but also other metal debris that has been deposited over the years. So it would have been very difficult for the technicians at the time to differentiate between the background noise and what may have been buried munitions. But nevertheless, that was the state of the technology in that time period. And a number of what are called anomalies -- an anomaly is just

a term for a location where a piece of buried metal has been detected. So a large number of anomalies were excavated, and some discarded military munitions were recovered. They're referred to as discarded military munitions because they were not fired. You might also hear the term unexploded ordnance, but that is a special term given to munitions that have been fired or otherwise handled in a way to basically render safeguards or to take off safeguards, and they're a little bit different than a piece of discarded munitions which had not been fired.

So nevertheless the Navy did remove a number of munitions based on this work in the 1990s. There we go. And the next few slides are just a quick history of the location where some of these munitions were located.

The emergency response locations are shown here in yellow, one item here, an eight inch projectile, a one pounder, and some four and six inch projectiles over by what's called South Shore Area A266. Again, most of these emergency responses or these items were encountered close to the shoreline. And the investigation that I referred to a moment ago also encountered a large number because there were a lot more thorough investigations. And you can see that most of these items are grouped either along the shoreline or in the southern portion of the Production Manufacturing Area. You can also see that typically there are groups of items. There is just only one of these where there was a single item. So typically this kind of indicates intentional disposal of some sort, or what we sometimes refer to as honey holes. But nevertheless, either someone dug a hole or there was a hole there and items might have been placed there and then ultimately the area was backfilled and forgotten about. So this is where the munitions were located in the late 1990s investigation.

And on the south shore, the emergency responses were in this area over here by Pier 34. And actually a very large number, about 5,000 pounds of miscellaneous munitions items were found near Dike 14. And again, that's pretty typical of an intentional disposal area.

And then based on a subsequent investigation at the South Shore, this is the previous location that I mentioned by Dike 14. When that was more thoroughly investigated, another 1,500 plus items were pulled out of that hole. And you can see that the other numbers again, mostly multiple groups of items in locations with one exception.

So because the technology had improved over the last several years, both in terms of the sensitivity of the geophysics physical instrumentation, but also the navigational instrumentation was getting better with better GPS type support to where the accuracy of the instrument signals could be detected within centimeters of their true location; a digital geophysical mapping survey was conducted in 2006. And before we actually went out in the field, part of the process is to do what's called a geophysical prove-out. And this is a test grid that's laid out and accumulated UXO or munitions items are buried at various depths or angles, and then you pass over that area with the geophysics instrumentation, and basically prove out that your methods and your instrumentation can actually detect those items that are varied. And so that's the first step. And one of the things that we were able to determine based on that initial testing was that because of the amount of background noise in the south shore and Production Manufacturing Area, that instead of a two foot sensor spacing, we had to reduce it to a one foot sensor spacing to get a more refined or higher density of data in order to basically find the items that we were looking for.

The next step, of course, was then to do a geophysical mapping of the entire South Shore and Production Manufacturing Area. We actually used a combination of both magnetometer and what's called electromagnetic system. One basically just senses the disturbance of the earth's magnetic field. And the other actually pulses the ground and looks for a response back that is dependent or is

proportional to a metallic item. And then, of course, a lot of data is generated from this process and ultimately analyzed. So it's not very sexy, but here is your basic mag cart with a GPS sensor on top, and the individual sensors along the cart. Here's our hybrid vehicle pulling the unit. He runs on a hundred percent biofuel.

CO-CHAIR HAYES: Where are the oxen?

MR. GEMAR: The carbon dioxide emissions are a little high, so we're working on that. But that's -- nevertheless, basically they run along a line, and they paint it, and they can see real time if there's any gaps. And if there are, they can go back and go over those areas. So that's basically instrumentation.

There's a lot of quality control and quality assurance that goes into this in addition to the geophysical prove-out testing that I mentioned earlier. There's also what's called seed items. And these are basically inert pieces of metal that should resemble a munitions item, and they're buried at various locations throughout the survey area. And these are what we call blind seeds. That is, people that are not associated with the survey actually go out and put them in and don't tell the other guys. And then when they look at the data, basically they will hopefully pick those locations as an anomaly. And if they don't, then there's obviously a review as to what was going on there, why that item might have been missed, although very few were actually missed, and most of those could be easily explained. And also, the whole process is overseen by an independent geophysicist in addition to the geophysicist who's on site. And also we resurveyed part of the grids go over them again, and basically compare results from the second go-round versus the first go-round to make sure that they're consistent.

The Navy also did their own quality assurance, and that consisted of the Navy placing their own blind seeds in the geophysical survey area and making sure that we could detect those. They also had their own geophysicist review our data, as well as in some cases they actually came out with their own instrumentation and collected their own data, compared it to our data, and that all looked real good to them, so we got good marks on that.

So just for comparison purposes, on this table I've listed the number of anomalies that were collected and detected during the 2006 digital geophysical mapping survey compared to the number of anomalies that were originally investigated. And you can see that there's over a ten-fold increase between the number of anomalies that were picked up by the audible technique available at the time versus the somewhat more sophisticated or automated process that's available through this digital geophysical mapping. So that's what we're looking at now is about 16,000 plus anomalies in the Production Manufacturing Area, and 15,000 plus in the South Shore. And of course we know that a very high percentage of those, practically all of them, will not be munitions. Unfortunately, the state-of-the-art being what it is, you still cannot differentiate an item based on signal alone. You can make some intelligent assertions, but nevertheless you have to physically dig the hole and look at what comes out of the ground in order to determine what those anomalies really are. And that is exactly what the Navy is currently proposing to do as the next step, and hopefully the final step, in doing a munitions response and investigation of this PMA, Production Manufacturing Area and the South Shore Area. And of course that objective is to do a final investigation and remove any MEC that might remain in order to facilitate future land use and transfer.

The first step in that process is to develop a document called the Engineering Evaluation and Cost Analysis, EE/CA for short. And this document will be passed through for both regulators to look at, and it also will be available for public review. In the spirit of early and often communication, we

wanted to list the types of alternatives that are being considered in this EE/CA document. The first one is kind of the no action alternative, which is also a required action item or option under the CERCLA remediation rules. And in this case no action basically means that we maintain the existing fencing that surrounds the area and try to keep people out. But obviously that does not achieve the objective of any future land use or transfer, and so that option really will not be carried forward. On the other extreme on the bottom item, you could put a soil veneer over the area of two feet or whatever, and provide some buffer between future use and users, and any potential hazards. The problem with that is obviously it doesn't remove the hazard, and you have the problem of long term maintenance of that buffer zone, if you will. So that's not a terribly attractive option. There is another option which is, for lack of a better term, it's a nuclear option, which is to mechanically -- to dig up several feet of soil, and actually run it through a screen plant and sift out everything that's in the soil. Obviously that would be very expensive, probably tens of millions of dollars. And we know that, from a volume standpoint, out of a million cubic yards of soil, there's probably a thousand cubic yards that might actually have a munitions item. So it's not a terribly efficient way to go either. So the option then that is currently gathering the most favor during the current evaluation or preparation, I should say, of the document, is this middle option which is to investigate. And that is to excavate at these anomaly locations that were identified in the 2006 survey, and basically determine whether those anomalies represent munitions, abbreviated as MEC or Munitions and Explosives of Concern, or if they're just inert metal debris. And we know, of course, that probably 99 percent probably plus will be inert debris, but nevertheless you have to go through the exercise of digging up at these locations in order to verify that.

Within this option there are kind of some sub-options that are being looked at. And these basically have to do with the percentage of anomalies that are investigated, whether they're all investigated, or whether some are investigated. So that will be part of this evaluation process in the EE/CA. And within that process that I just mentioned within the preferred option at this point of actually investigating the individual anomalies, certain areas are being looked at as priority areas that will get a higher level, or perhaps as much as a hundred percent evaluation of the anomalies. And it's hard to see in this diagram because it's pretty busy, but the areas that are shown in red boxes are essentially those sectors that we think are the higher priority areas. And as you probably might recall from some of those previous maps, most of the munitions, almost all of the munitions items that have been previously recovered have been along the shoreline. And so it's no surprise then that our priority grids are pretty heavily distributed along the shoreline. And in the South Shore it's -- that is the case as well. You have a long strip basically all along the shoreline. But we also have some sectors here and down along here. And these, again, are any area that previously either had an emergency response to recover a piece of munitions, or if the previous investigation had located a piece of munitions that was automatically considered a high priority area.

And we also looked at a lot of historical photographs from as early as photographs were available -- I think the earliest was maybe the 1920's. But nevertheless, we went through and looked for areas where pallets of munitions were being stored outdoors, or other type of activities that would be indicative of munitions handling. And so in some cases we selected priority sectors based on analysis of those historic photos.

Assuming that the option to investigate the anomalies is selected, this is the process, step by step process that will be utilized, and I'll just run through them briefly. The area is initially swept on the surface for any munitions items on the surface. And also we take a radiation detector and check for what we call RAD items, which are usually these deck markers -- we call them buttons -- that were

on ships, and then when they were phased out, a lot of those ended up being discarded overboard along the strait, and subsequently ended up on the shore, either in fill areas or in other disposal methods.

We would then excavate each of these anomalies to a radius of two feet out and four feet deep. Even though we have what we think is a 0.1 foot accuracy based on the GPS availability, we nevertheless go out two feet in order to give us a bit of a buffer there. And we go at least four feet deep. And we know that we're going to encounter a lot of metal trash most likely, because we've seen that pretty consistently in these areas.

If we find any evidence of that MEC and RAD, we'll continue to go to depth, as long as it takes to clean up any items that we find. If we think it's just railroad debris, for example, railroad spikes, those kind of things, if it's feasible we'll clean the hole of those and verify that no more magnetic signature is present. In some cases it may not be feasible to do that. If there's buried concrete with rebar, for example, it would be very time consuming and expensive to try to pull out large chunks of concrete. So in those cases we'll note that the residual magnetic signature was due to rebar and concrete, for example, and we'll move on. We'll also, of course, do the quality control steps where an independent person comes in and does their own evaluation of the hole and any soil that's removed. And, of course, the Navy will have their own quality assurance as well as our quality control. And then any items that are found, if they're radiological items such as these buttons, that will be packaged for later disposal off island by the Navy. Or if we find any MEC, those would be destroyed on a special detonation range that's on the southwestern part of Mare Island. And again, this is not terribly high tech, per se, you're digging a hole. And because we're going to four feet we give them a bigger shovel. But we, of course, have to have the five gallon bucket, that's a requirement.

So here we have the UXO trained technicians that are doing this work, and they're trained to know what they're looking for, so to speak. They're all former military DOD personnel. And I did have a video clip on this but I'm not going to play it because it seemed like it makes the computer crash, or at least this projector. So if somebody really wants to see what a typical, what we call shot is, you can come up after the presentation and I'll play it on my laptop for you. The small bermed area is at the southwestern part of Mare Island. You can see the Carquinez Strait in the background. And in the small corner of that bermed area -- we don't use the whole bermed area, but a small corner is used -- we put munitions items with donor explosives, C4, and we put about four to six feet of sand on top of the item and, of course, have the blasting caps, and then the items are remotely detonated. And then the team comes in and verifies that the items have been thoroughly destroyed, and then we repeat.

So, to wrap up from a schedule standpoint. We're looking to have this draft EE/CA document to the agencies in August. And they get the first whack at it. And then once we've had their comments incorporated, and we go through a second round, and they're happy with the document at a draft final stage, then that will be put out for public comment, which would probably be in the December-ish timeframe, early December probably. And then once we go through a 30-day comment period, which would include a public meeting, then we would incorporate and respond to any comments from the public as to the proposed option.

And we've kind of given you the sneak preview here of what's being considered at this point, but it's subject to input from the public. And then that document will be finalized. And then the Navy will complete an Action Memorandum, and then the work plan which actually provides the specific

instructions on how the work will be performed in the field. That will be completed by May. And then the field work is anticipated to take about one year, give or take, and so that will run from mid '09 to mid 2010.

And I'd be happy to entertain any questions at this time for this phase of the presentation.

MR. KARR: Dwight, I got just one. On slide 16 there's a little, that top left corner, that blue ballooned area there, is that a road into a bunker, and is that typical of all the bunkers? Are you going to do some -- why is that ballooned out?

MR. GEMAR: That's a good question. I think the only reason it's ballooned out is that that's the Coast Guard tower, and I think that probably we just had a GIS map that showed that area as a different property owner.

MR. KARR: No significance, in other words?

MR. GEMAR: No significance, right.

MR. KARR: Right.

MR. HOLLINGSWORTH: The Coast Guard is actually the owner of one acre of property at the top of the hill, and on all of our maps we draw that little thing because it doesn't belong to the state, it doesn't belong to the city, it belongs actually to the Coast Guard, and its communication.

CO-CHAIR HAYES: Maybe this is a question not for you but Steve Peck -- is that his name?

MR. PECK: Yes.

CO-CHAIR HAYES: Are we budgeted through 2010 for this work, or 2009-10?

MR. PECK: Michael.

CO-CHAIR BLOOM: It's actually budgeted right now through the EE/CA, through the first phase up there, but it's in the plans for the rest.

CO-CHAIR HAYES: I guess I was just wondering whether you are optimistic or have no clue about whether you'll be able to stay on target, so to speak, for that schedule.

CO-CHAIR BLOOM: Hopefully I do have a clue, and I'm optimistic. Hopefully we will stay on that schedule. If there are no other questions, I'll let Dwight get into the --

CO-CHAIR HAYES: Well, I don't have any other questions, but I was just going to note that in meetings with the woman who lived at the ammunition depot from 1930 to 1952 or so, I met with her last week in Sonoma, Laurie Steward, and she brought out a stack of photos of the kids playing on the beach. When they went to the beach, they went to that South Shore, Carquinez Bridge in the background. Looked like a lot of fun.

MR. KARR: Skip bullets, couldn't find any rocks.

(LAUGHTER.)

CO-CHAIR BLOOM: Okay. I'm going to let Dwight go on to the second presentation.

MR. GEMAR: Anything else? Okay.

CO-CHAIR BLOOM: All right. The second presentation is on our -- is an update on the Time Critical Removal Action that we were doing. And I'll let Dwight give you an update on what's going to be happening with the rest of it on the four sites.

CO-CHAIR HAYES: Is that the landfill?

**III. NAVY PRESENTATION: *Time Critical Removal Action (TCRA) Update – Installation Restoration (IR) Site 04, the Paint Waste Area, the Horse Stables Area and IR Site 05***  
**Presentation by Mr. Steven Peck, Navy and**  
**Mr. Dwight Gemar, Weston Solutions**

MR. GEMAR: It will be. Okay. For the second part of the presentation I'd like to introduce me. And we're going to talk here about another activity unrelated to munitions mostly -- other than a little surprise at the end -- what's called a Time Critical Removal Action of several sites on Mare Island. And basically this involves an excavation of contaminated soil from four different sites on Mare Island, and these sites are the Investigation Restoration Site 04, Investigation Restoration Site 05, Horse Stables Area, and what's referred to as the Paint Waste Area. And the basic process here is to remove contaminated soil from these diverse locations, and to consolidate them into an area that already has a significant amount of contamination, but it's also contained by engineered barriers for groundwater, and is in the process of having an engineered cap placed on it. But this is basically within and adjacent to the old landfill that's on Mare Island that's currently undergoing closure. So, again, this is a recap.

In Investigation Restoration Site 04, also somewhat officially known as green sand beach, is a former sandblasting area. Again, here next to the finger piers. And the main contaminant here is abrasive blast material commonly referred to as green sand although there are actually other types of blasting grit that were used over the years from Monterey sand to a copper based material. But the green sand is a nickel based material, and that's the one that's really most prevalent. Investigation Restoration Site 05 was used formerly to dispose of, either through burning or detonation, of unwanted munitions. And there is contamination in the ground, mostly of a metals standpoint, heavy metals like lead, for example. But there is also explosives residue in the soil. And so that exceeds either a human or what's called an ecological risk criteria. Ecological just means that it affects non-humans and, which I guess would include politicians, I don't know, but -- I don't know. No, that was bad.

(LAUGHTER.)

MR. GEMAR: The Horse Stables Area is also an area that there's some green sand that was used for bedding material or other purposes, I'm not sure why. The horses probably didn't know that they were tromping around on green sand. And then the Paint Waste Area had some, as the name implies, some paint residue that had been basically tossed out into basically the back forty, so to speak, and was encountered during a survey by the Fish and Wildlife Service back a few years ago. And again, that has metals and other constituents that are hazardous either to humans or to wildlife.

So I'm going to briefly run through what's been done at each of these sites to bring everybody up to date, and what's remaining to be done. Investigation Restoration Site four was excavated last year, and over 28,000 cubic yards of this Abrasive Blast Material was removed and transported to the H1 Containment Area. And the depth of excavation in some cases was as deep as eighteen feet below ground, so it was a pretty thorough removal.

You can see a photograph here of the process where the contaminated material, which is on this side -- in fact, you can see kind of the green lens, kind of looks like the Grand Canyon at sunset

there -- but that's green sand, kind of a rise in there, that's removed. And then because of the sloughing nature of the soil, especially as you get deeper it gets very wet, of course, from the groundwater level and the impact of the nearby water over here, we immediately bring in clean backfill to basically keep that material from sloughing back away from the face of the excavation. And then when we go back and start another strip we actually go back and remove some of that clean with the leading face of the excavation to make sure that we completely remove that ABM material. We do have a few areas, these small little areas over here that are left to be done. We had to get permission from the explosive safety branch of the Navy to do those because they're technically in the Production Manufacturing Area, although they're right across the street from the boundary. So nevertheless, the scope is to remove those areas as well, and to get the green sand out of those. And so those will be done here shortly, probably in the July timeframe.

This is an overview of Site 05. To date we have removed 18,400 cubic yards which is shown in these green areas. We still need to address contamination in this area shaded as red. The one complication is that there is some existing pickleweed in these areas. And for folks not aware of pickleweed, it is the preferred habitat for an endangered species, the salt marsh harvest mouse; and therefore, we have to go through some extra steps to access, or basically remove that habitat. It will be restored; but nevertheless, there are some additional approvals that need to be obtained, primarily from the Fish and Wildlife Service, but also from Cal Fish and Game, and I think the Water Board probably looks at it as well. And it's a relatively small area, about half an acre. But unfortunately, most of the habitat in this area would have to be removed in order to remove the chemical contamination and, therefore, we need to go through these extra steps to get approval. And that work is ongoing.

The Horse Stables Area is a smaller site from a contamination standpoint. Again there was green sand in this area over here next to a circular corral area. And then green sand on either side of the stable itself, South Shore Area A155. We removed 2,580 cubic yards last year. And we believe that these areas are now clean or have met the cleanup criteria. There is evidence of green sand underneath this building itself, and the Navy is going through and discussing that with the State Historic Preservation office, and they'll need to get their concurrence that this building can be removed in order to get to that contamination underneath. It is a non-contributing building, but it's located within the historic district, so it needs to have that extra pair of eyes looking at it.

And this is an overview of the Paint Waste Area. And these little grids shown here, these are just 25 by 25 foot areas, and these are 50 by 50. These were the original grids that had been previously identified by others that needed to be addressed as part of this residual paint related debris; however, during a routine radiological inspection of these grids, we picked up elevated readings. And with a shovel, basically, because they were close to the surface, we pulled out a number of small deck markers. These were the smaller ones mostly, which I guess they're commonly referred to as cat eyes. And so that brought a different perspective to the site. Ultimately we surveyed the entire surface prior to doing any large scale excavation, and actually all of these little red dots represent a location where one or more RAD buttons or cat eyes were removed. So it was pretty widely distributed across this area. This line here kind of represents the edge of some adjacent pickleweed habitat. And this area for the most part is just kind of an upland mixed vegetation type area. So that, again, brought in a different set of concerns on this site.

And as you can see on this slide, ultimately we have removed to date, or last year, 133 of these luminescent deck markers; again, commonly referred to as RAD buttons or cat eyes. And these were all removed from the upper eighteen inches of the surface. So literally we've only scratched

the surface, so to speak. But because these RAD items had been typically found in outfalls on Mare Island that received dredge material from the Mare Island Strait -- and again, for a quick refresher, a lot of unused or unwanted radiological items or munitions items were tossed overboard, and when the dredgers would come and, as they routinely did on Mare Island, and remove the sediment, and they would pump that sediment to the western side of the island to create new land mass, and at the exit of these pipes, which are called outfalls, a lot of this debris, metal debris from could be munitions, could be knives and forks and whatever, tend to drop out and congeal together in a rusted mass. And the RAD items are typically found at those kinds of outfalls. So we did start to do a surgical excavation, but almost immediately ran into munitions items as well, which pretty well confirmed that this site, although it wasn't known to be an outfall, apparently must have been used as an outfall.

And upon further review by the line judge, we did find a 1939 map that showed a dredge ditch running right past this area. And ultimately that was expanded further to the west, but this area was apparently someone had forgotten, I guess. And so we have both radiological and munitions items now to deal with in addition to the chemical contamination. So a Work Plan Addendum is being prepared as we speak; in fact, it was shipped out today to the Navy, so you'll have some light reading for tomorrow. And the objective will be to remove soil from this area, and to thoroughly investigate for radiological and munitions items as well as the chemical contaminant.

And I apologize, this slide is pretty wordy, but essentially the process is listed here. We will take a surgical excavation approach with one foot at a time. There will be a radiological survey for each foot. The reason for only excavating a foot at a time is because the radiation detectors basically can only see through about eighteen inches of dirt, so we're taking about a foot at a time. We want to remove the radiological items first before we deal with the munitions part of it.

And then we will take the soil to a location where it can be mechanically screened or sifted in order to remove any MEC. The reason why we are sifting this area as opposed to doing individual digs like we mentioned for the Production Manufacturing Area is this is a smaller site; it's only about two and a half acres. But also what we found typically in these outfall type debris areas is the density of metal is so dense that you're practically on your hands and knees going through what could be 25,000 cubic yards of soil. So that's not very efficient. So what we've done at similar location, which is the Outfall Location 4 South near the Marine Corps Firing Range, is it's a lot more efficient to run it through a mechanical sifting plant. We also put magnets on the plant, and that immediately pulls off ferrous items. And then, of course, the screens themselves will remove anything greater than three-quarter of an inch, which is small enough to capture even a 20 millimeter projectile, which is typically the smallest munitions item of concern on Mare Island.

So after we mechanically screen that material, it will be consolidated over at the containment area, and then, when we think we're done with the excavation, we'll do a final radiological survey and a geophysical survey just to make sure that there's not something further down that we can't visually see. But typically you can have a pretty good handle on it by just the visual, especially once you get to the underlying clay, which usually means that you're pretty much toward the end. And we'll backfill the site, but we'll adjust the elevation to encourage, instead of the old upland vegetation, we'll keep the elevation a little bit lower when we backfill in order to promote pickleweed growth, which will create some additional pickleweed habitat. And then, of course, for the other sites that we package up the RAD items for later off island disposal. And we'll transport the munitions items first to a magazine for storage, and then we'll detonate or destroy those items after we are complete with the work in the field.

And this is just an overview of kind of the currently proposed screen location which is over here. The reason it's so far away from here is that when we dig the areas there is a safety arc of, in this case, 236 feet that needs to be maintained around the excavation area in the event that there is some unintentional detonation. So we don't want anybody within this arc. But that's considered a low probability event. But when we do the sifting, we're imparting more energy into the soil. As it goes through the screen plants they're vibrated, and so the probability or potential, even though it's still remote, the potential goes up a little bit. So the rules are that we have to expand that safety arc to 1,250 feet, and about the only place that we can do that without impacting normal traffic going in and out of the site and other activities is to move it out here.

This is an area that was recently excavated and backfilled to remove other contaminants. And so this area, since it's been recently disturbed, it's a nice flat area, it doesn't have any vegetation associated with it, that's a good location for this type of activity, and the soil can be transported along existing levee type roads to this southeastern location in pond one.

And this is a photograph of the type of equipment that we'd be using. This is actually a picture of the sifting plant that was used to clean up the historic Outfall 4 South which is just adjacent to the Marine Corps Firing Range. You can see the Marine Corps barracks in the background.

And, again, basically you feed in the soil in this end with a loader or an excavator. It travels up the conveyor. There's a magnet here. There are a couple of screens here that eject oversized material. You can see a loader here scooping up some of this material. And then another magnet underneath the three-quarter inch which has a conveyor belt that rotates and tosses any metal into a bin located over here. And then this is the final product which is a three-quarter inch minus soil. And this is basically the same process that will be used for the Paint Waste Area.

And I'm sure the words that everybody likes to hear, the conclusion. This is a summary slide for the schedules. And there are a few hurdles that we still have to achieve. One is for IR05. As I mentioned, we have to obtain this approval through Fish and Wildlife Service to remove the soil within those pickleweed areas. The Navy is working with SHPO, the historic preservation office, to confirm that South Shore Area A-155 can be removed because it's classified as a non-contributing building, and, of course, the Work Plan, once it's gone through the Navy's interim review, will go out to the regulators, and hopefully we'll get a thirty day or less review from the regulating agencies in order to allow us to get started in the July timeframe. And we think that we could be done with the Paint Waste Area in September.

IR05 could go longer depending on this approval from the Fish and Wildlife Service that could potentially give us a snag. But we'll see how that transpires. But nevertheless, we're hoping to wrap up all or the majority of the work this year.

And I'd be happy to entertain any questions.

MS. CHRISTIAN: I have one.

MR. GEMAR: Diji.

MR. CHRISTIAN: I try to figure out what these acronyms are when I see them, I know RAD and MEC, but there are many that I don't know. And one is IA-H1. I don't know what those letters or numbers stand for. And then I'm curious to know how long things remain -- how long do items remain in that area, containment area? Is it like forever permanent, or is it, you know, a temporary place and then they go someplace else? Because I don't know what is in that containment area. I

know the MEC can be, and the RAD, but there must be contamination involved in that area; right? And how long is it stored there?

MR. GEMAR: Okay. Thanks, Diji. The IA part, that stands for Investigation Area. And H1 is just a label that the Navy assigned to that area back in the early days when they started to look at any environmental issues on Mare Island. So IA-H1 is just an abbreviation for Investigation Area H1. And a lot of the disposal practices on Mare Island after the 1940's or during the 1940's and afterward took place in investigation area H1. Prior to that there was land disposal in other parts of the island. But by and large, from the 1940's until the shipyard closed, just about all of the waste handling or disposal activities occurred out there. And that's where they had what was referred to as the facility landfill. And so as the name implied, that was a landfill. And all of the shipyard waste, including some municipal type waste, garbage, what have you, was taken out to the landfill. There were also other things like this Abrasive Blast Material, this green sand that I mentioned, a lot of that was put out in the landfill. Asbestos was put out. Waste oil and oily bilge water was taken out. And there used to be an oil sump area that a lot of that was placed. So a lot of cats and dogs of waste was placed out there. There was also an industrial wastewater treatment plant, and a sanitary sewage treatment plant was all out at H1. And that was pretty much all the waste handling was done out there. There really wasn't munitions disposal that is known, although we have encountered some items out there. But typically it's been other things like you would typically find in just about any landfill. So that's really the purpose.

Now, the remedy or the cleanup objective for the containment area is to leave that material in place, because the only other option really would be to dig it up and haul it to another landfill. So unfortunately, that area will basically for perpetuity be a landfill. And we have done some things already to address contamination within that Investigation Area H1. We put in a subsurface barrier that's called a slurry wall that cuts off the groundwater from escaping from the landfill. And we pump that out and we send it to the Vallejo Sanitary Treatment Plant.

We also are in the process, and we've completed about 75 -- well, about 80 percent of a cover that has impermeable materials that will basically provide a roof or a cover to the soil or to the waste. And the other benefit of that particular area is because it's all fill material, it's all made of -- that part of the island is all clay essentially. Clay is very impermeable to water, so it does provide a natural barrier. So even in the event that 500 years to a thousand years, depending on when you believe the geosynthetics, the artificial materials might degrade, you would still have this clay and material. So that's the final resting place, if you will. And so instead of having multiple areas scattered about the island that are contaminated, they're being consolidated in one smaller footprint.

Anything else?

MS. CHRISTIAN: No.

MR. GEMAR: Okay. Good.

MR. QUIGLEY: I have a question on the Horse Stables. You're saying it's a notable being in the historic area. When was this horse stables built? And are they talking about totally demolishing it or just picking it up and moving it?

MR. GEMAR: We're talking about deconstructing it, making it disappear basically, as opposed to moving it. And I don't know for sure, Wendell, but I think that it was built in the fifties maybe. Myrna, does that sound right?

CO-CHAIR HAYES: (Nodded head.)

MR. GEMAR: As a recreational benefit to the shipyard residents that were into horses.

MR. PECK: I understand it's been modified over the years too; the integrity I guess is in question at this point.

CO-CHAIR HAYES: So in other words, when Dwight says recreational, that means that it didn't have anything to do with the actual operation of the shipyard, like being for the horses that were part of the Marine Corps officers or something like that. It was just a place where you could go horseback riding, go store your horse if you happened to live on the island for a time.

I have a couple of questions. How much more materials do you think you'll -- in those areas that were just over into the PMA, will you need to remove at IR-04?

MR. GEMAR: That's pretty small. I think it's going to be probably about a thousand cubic yards, Myrna.

CO-CHAIR HAYES: Oh, yeah.

MR. GEMAR: Because those areas are like six inches. Just a surface grade, pretty much.

CO-CHAIR HAYES: And then the other question is, well, how many cubic yards do you think you'll be removing from the Paint Waste Area or doing your screening on? And where does that soil that you've screened go once it's been screened?

MR. GEMAR: Well, the proposal right now, Myrna, is to take it to the containment area, mainly because it may have some residual levels of contaminants associated with paint waste. But we'll take out the munitions and the radiological items. We're kind of geared up to thinking that it's about 25,000 cubic yards.

CO-CHAIR HAYES: About the same as the green sand?

MR. GEMAR: Yeah, pretty close. We don't know for sure until we get into it, but just from a radiological standpoint, the 133 items that we've taken out so far ranks number three out of twenty as far as outfalls. Only the 4 South and the adjacent 4 Mill or KK10 Grid, as we call it sometimes, outfall had more RAD items than what we've already detected over here.

CO-CHAIR HAYES: And the only other question I have is what if like on IR-04 you don't get to -- I mean -05, you don't get all of that material out because of delays in the approval process with the U.S. Fish and Wildlife Service? What will you do with that material? You don't want to be holding up the completion of your cap for yet another year on H1, right, so you would have to do something else with that material?

MR. GEMAR: Well, the only other option, of course, would be to take it off island. And, of course, there's a pretty stiff cost associated with that. So we're actually evaluating that and insurance carriers kind of come into play as well on that deal, as well as the timing with the Navy on the other activities like the Paint Waste Area and whatnot. So we certainly hope that we can get the review completed in time so that there's not an issue, but we just don't know.

MR. QUIGLEY: On the IR-04 area, how far does that -- does that not protrude into the Carquinez Strait?

MR. GEMAR: The Mare Island Strait is on the right-hand side there, Wendell. And, yes, there is green sand that is into the beach area. It's not as extensive as the onshore area, but nevertheless that will have to be addressed in a separate Removal Action. The objective for this Removal Action was

just to remove as much as we possibly could. And we knew that the majority of it was on the on-shore side, so that was the focus of this removal. But there would have to be another Removal Action down the road at some point. But the volumes will be a lot less than what we've taken out here, I think by a factor of ten or so, it would be less.

MR. QUIGLEY: Thank you.

MR. GEMAR: Sir.

MR. RASMUSSEN: I was just curious as to how you map these areas? Is it done with probably global positioning of some sort, probably GIS or GPS? And that probably covers both vertical and horizontal?

MR. GEMAR: Well, it covers the lateral or the horizontal. We use the RTK GPS for most of our work, and as far as depth go that's estimated as we dig these areas out. In the case of IR-04 we had to move quickly because of the sloughing nature of the sand, so we just estimated it based on the calibrated boom on the excavator.

MR. RASMUSSEN: Did you contract out for that or do you do that in-house?

MR. GEMAR: We did it in-house, that's with Weston equipment operators.

MR. RASMUSSEN: Uh-huh. Thank you.

MR. GEMAR: You bet. Anything else?

MR. QUIGLEY: Yeah, one last thing. This would be in regard to the dogs and cats. Are you going to have a special burial for that?

(LAUGHTER.)

CO-CHAIR BLOOM: Thanks, Dwight. We'll go into our -- we'll go into our first public comment period. Anyone have a comment? Okay. If not, we'll go into our break. Take a short break. Thank you.

(Thereupon there was a brief recess.)

#### **IV. ADMINISTRATIVE BUSINESS (Myrna Hayes and Michael Bloom)**

CO-CHAIR BLOOM: All right. Okay. We'll move into our second half. First is administrative business and announcements. If anybody has any comments on the April RAB meeting minutes, please get them to Myrna or myself. And we have another administrative business, and I'm going to turn it over to Myrna.

CO-CHAIR HAYES: The second half is the better half, right? And yes, Wendell, I did my hair just for you.

MR. QUIGLEY: Oh, God, you're sweet.

CO-CHAIR HAYES: You too could have a hairdo like this. That was something from last night's meeting. But never mind. Okay. So we are -- one of the items on our administrative business -- Mr. Porterfield -- is that we have a new RAB member election. And the way that works is that the community members of the Restoration Advisory Board have the opportunity to hear from us, the nominating committee or the review committee, that we are offering to you the name of a new community member. And then you as community members or we as community members have the opportunity to vote for that person. So those of you who are not considered community members of

the RAB can just sit back and relax and watch the democracy in action. I'm really pleased to say that the nominating selection committee did meet and we have an application from Chris Rasmussen. Chris. And he is a recent resident of Mare Island, has lived there for a few months, and would like to be involved in -- is interested in the process -- the environmental cleanup leading to reuse. Very interested in that. And has asked to be a part of the Restoration Advisory Board. So I don't think we really need to hear a speech from you, Chris. The nomination committee, made up of Mike and myself and Michael and Chip Gribble representing the regulatory agencies, that's the way our charter is set up, met and we agreed to nominate you. And then, so to not go on too much longer, I'd like to have a vote of the community members to accept Chris onto the Restoration Advisory Board. And I guess raise your hand.

(AYES.)

MR. QUIGLEY: Is the fee to join still \$500?

CO-CHAIR HAYES: And it's payable to Wendell.

(LAUGHTER.)

CO-CHAIR HAYES: Okay. Chris, why don't you, if you'd like, if you don't mind being put on the spot, find a seat here and come up on up for the rest of the meeting. Maybe sit between Michael and Wendell if you really want to get a dose of what it's like. Okay. Thank you. And we'll --

MR. KARR: He has no fear, we know that. It's obvious.

CO-CHAIR HAYES: And we have in the past had subcommittees that have met outside of the RAB, but right now it seems like we're doing good to get here once a month, for the last fourteen years for Paula and me. And from time to time we also have what's called a more in-depth -- I don't know what we called it, the focus group where if there's a particular issue that we think deserves quite a bit of time, and bringing in Chinese food or pizza could help get that issue on the table and really thoroughly discussed, we will hold the meeting outside of the RAB. Just in terms of time, sometimes those can go on longer and be more informal. But that hasn't been for a little while either, so -- Okay. Well, Michael, you want to just go on with the rest of this? I'll eat my chips.

CO-CHAIR BLOOM: Thank you. Welcome.

MR. RASMUSSEN: Thank you.

## **V. FOCUS GROUP REPORTS**

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

CO-CHAIR BLOOM: Next up is Wendell for the focus group reports. Community.

MR. QUIGLEY: I have nothing.

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

CO-CHAIR BLOOM: Okay. Jerry on natural resources.

MR. KARR: Wendell and I are on the same wavelength.

MR. COFFEY: Nothing?

MR. KARR: Nothing to report.

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

CO-CHAIR BLOOM: Next is technical. Paula.

MS. TYGIELSKI: Other than saying it's good to see Jerry Karr back, nothing.

MR. KARR: Thank you. Thank you.

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

CO-CHAIR BLOOM: Thank you, Paula. Gil, city.

MR. HOLLINGSWORTH: The city has nothing.

MR. QUIGLEY: Amen.

(LAUGHTER.)

**e) Lennar Update (Steve Farley)**

CO-CHAIR BLOOM: Lennar update. Steve Farley.

MR. FARLEY: Wendell, I'm sorry, but I do have something.

I've got a couple of handouts over at the main table. One is a list of some of the main documents that are in the process of review right now. It's not all the documents, but it's a number of the major ones that are going on.

One side is DTSC; the other side is the Water Board. So if you have any questions about that, give me a holler.

The other handout is our normal monthly eleven by seventeen. The main area of the EETP or Eastern Early Transfer Parcel is in the heart of the handout. A couple of photos and some statistics down in the lower left. Let me start with the photos. In the upper right corner is South Shore Area 271. AL-02 stands for Assessment Location Number Two which represents a PCB site. And I think the thing that's interesting about this is it gives folks that maybe don't have much of a chance to look inside some of these buildings to see what they look like now. The white dots and numbers represent the locations where samples will be collected for analysis primarily of PCBs because that's the nature of the site. In the upper left corner you're looking at a vacuum truck that is being used to clean out a segment of the Installation Restoration 14 pipeline. IR-14 is the old industrial wastewater pipeline system. This is a segment that runs down Azuar Drive and it makes a turn to the west and goes out Dump Road. This is a short segment that we needed to clean and flush as part of the overall closure of IR-14. In the lower left corner is another example of some excavation work that we're doing. This is for a FOPL or Fuel Oil Pipeline segment. This is near South Shore Area 121 which is over just north of the weighs one. I think the thing that's interesting about this photograph, and one of the reasons I included it is we always talk about these fuel oil pipelines and utilidors and all of these other sort of common structures out here, this is a pretty good example of a utilidor. You can see the sort of U-shaped concrete structure with the pipelines running through it. And if you look real closely you can see it has a concrete lid on it. And that's a very, very common manner in which the pipelines were laid so that if there were releases, there's at least some level of secondary containment or something that might leak out of there.

The reason the trench is being dug on the side is because we did have a release and were doing some excavations to remove both the pipelines and some of the contaminated soil. Looking down sort of in the lower left corner, there's a bunch of reports and statistics. The things that are important: there is the draft IA or Installation Area -- excuse me -- Investigation Area B-1, Crane

Test Area, Feasibility Study, and RAP. That document was recently submitted to the agencies. We've actually had some very, very productive discussions with the agencies in the last week or so and in the Draft Tech Memo for the part of IA-B2 that can proceed with closure certification.

So those two documents –

CO-CHAIR HAYES: Steve, could you just, for at least Chris' edification, and maybe the public, could you just explain briefly what that Feasibility Study and what RAP means?

MR. FARLEY: Yes. Thanks, Myrna.

CO-CHAIR HAYES: And the same with the tech memo, kind of what the concept is.

MR. FARLEY: Yeah, you're right. So let's start with Feasibility Study or RAP, Remedial Action Plan. The Feasibility Study is part of what's called the CERCLA Superfund process. And what it does is it looks at all of the data from the site, looks at all the media that are affected by various contaminants, and it goes through and does an engineering evaluation and a cost evaluation for different remedies, different options for essentially fixing the problem.

So in this particular case the Feasibility Study evaluated five or six different alternatives for an area called the Crane Test Area. The Crane Test Area is shown here sort of in the upper left portion of the map. The Remedial Action Plan is the next document that would officially select that remedy and put the whole process in place for taking the next step, which would be to do the design work and then actually implement the selective remedy.

The point is, that's a very, very important decision document. It explains the site conditions and looks at all the different engineering aspects for what to do about a particular problem in the site, and lays all that out. The agencies look at it and -- in fact, they look at it, they did a -- I wish some of the folks were here tonight, because they really looked at the document very quickly. And even though they haven't finished their review, they will come together and have a very productive meeting to finalize that document. So I want to publicly thank the agencies for getting through that, at least to the point of having that productive work meeting.

The Draft Technical Memorandum -- the tech memo process is pretty common here at Mare Island. There's a series of lots and lots of different documents that are written. The tech memo is basically a technical document that summarizes site conditions or decision-making processes that are going to be used for moving a site towards closure.

And we recently did that for a portion of IA-B.2. IA-B.2 is the area up here in green. And for those who haven't been around the site for a while, IA-B is -- Investigation Area B is this whole area. What we did is we carved the Crane Test Area out, because the rest of the area in IA-B was ready to go for closure, and we didn't want that to slow down the rest of the process. So we pulled the Crane Test Area out to the side.

If you look in the lower sort of central portion of these little tables, there's a label there that says environmental site closure status. This is interesting for a couple of reasons. One is it gives you some idea of the number of individual sites that exist in what's called the Eastern Early Transfer Parcel. You can see there's about 600 PCB sites, 112 UST sites, and over 110 FOPL or Fuel Oil Pipeline sites. And the Fuel Oil Pipeline, the utilidor that I talked about before in this lower left photograph is a good example of one of the fuel oil pipelines.

So the point is that there's -- what is that? -- five, six, seven, eight, 820 individual sites of PCB sites, USTs, Fuel Oil Pipeline sites that are in this area of the Eastern Early Transfer Parcel. That's a

lot of individual sites. Now, some of them are about the size of this table, but it's still a lot of individual sites that has to go through the whole regulatory process. And it is quite time consuming, and it's really important to sort of keep on top of all the nuts and bolts through that process.

So let me make a couple of other real quick comments about the work we're doing. You can see that there are a number of labels and site names, building names, USTs. There's a lot of work going on right now. I'm not going to go through the schedule, but I brought just one of about thirty pages of schedules that we're working with right now to try and wrap up the work that we're doing out at the site. A couple of highlights just for tonight.

The IR-15 area, which is sort of the green box that's in the center part of the map, that's an extremely important site. It has a groundwater contamination problem that we're working on. We're actually performing a pilot study right now for an enhanced reductive dechlorination of some solvents that were released into the ground surface through activities within some of the Navy's old degreasing plants and chrome plating shops and that sort of thing. So that's one of the sites that have a lot of focus for us because it takes so long to fix a groundwater problem, you know. A soil problem you can dig up and be done in an afternoon potentially, groundwater problems are a little more complicated. So we're spending a lot of time on that.

UST 231, sort of immediately to the left of that, is an old Underground Storage Tank or UST site. We're getting ready to do some, a large scale soil excavation over in that area.

And then there are a number of other areas that we're working on. We're putting in some monitoring wells in some locations, doing some relatively small scale excavations at others. The sort of purple lines that are on there represent a number of other fuel oil pipelines that we're working on. So the bottom line is that this is a small portion, but some of the important sites that we're working on right now.

I think Neal wanted to add something about UST 839 which is sort of immediately to the right of the letter B in the upper portion of the map. So, Neal.

MR. SILER: Just to keep you apprised of what's going on on the island. As you know, CH2M Hill is our remediation contractor for all of the known sites on the island. We're trying to expedite cleanup and get through this process, and we want them to concentrate on those known sites at this time. Now, not only are there known sites that were identified in the ESCA and the Consent Agreement, but there are known unknown sites, and there are unknown unknown sites that we come across all the time. I know, it sounds funny.

So what we're doing is we're taking the lead in trying to clean up some of these unknown sites as CH2M Hill cleans up some of the known sites. So UST 839 is one that we worked in conjunction with CH2M Hill. And this is a petroleum hydrocarbon issue at this site. But in the wisdom of when the tanks were removed, you heard Dwight talk about removal of green sand at IR-04, the backfill material that they used was green sand, when they backfilled after they took the underground storage tanks out of this site. So we removed the Abrasive Blast Material, the green sand, and then we worked with CH2M Hill in conjunction to go ahead and identify the green sand material and the petroleum hydrocarbons so we could go ahead and move this along at one time. So you're probably going to see a number of sites that we're going to be working on in the future with this. And just to do this we're trying to expedite the cleanup of the site as we move along.

MR. FARLEY: I guess one thing I'd like to add is I really do, Neal and I work together pretty closely, and we're always in contact on a number of things. And I just want to express my gratitude

to Neal and Lennar for making some of these issues of knowns and unknowns and known unknowns and unknown knowns -- sometimes it can be a little overwhelming -- but Neal does a good job of trying to smooth out some of those hiccups, so I just want to say thanks to him.

**f) Weston Update (Dwight Gemar)**

CO-CHAIR BLOOM: Okay. Thanks, Steve. I appreciate it. Next is the Weston update. Dwight, you're up again.

MR. GEMAR: Well, fortunately for the RAB I'm pretty well talked out. So I have a one pager, and a list of documents that are currently in review or being prepared. A brief description of that IR-05 issue with the pickleweed that I mentioned in my presentation. As far as H1 is concerned, the field work should be resuming in earnest in the July timeframe, especially for the residents on Mare Island, they'll see some of the yellow pop toys running around in July.

A little shot at some of my friends enjoying the wetland area we created as part of our cleanup remedy. And then I also put in a brief paragraph on the Sanitary Sewage Treatment Plant where we're discussing with the agencies which is the next step to hopefully try to finalize the cleanup out at the outfall area. This is, again, a small pipeline that goes out to the bay from the former Sanitary Treatment Plant Outfall on the northwest side of Investigation Area H1. So we're trying to get our arms around the next step for that site. That's about it. I'd be happy to answer any questions though.

**g) Regulatory Agency Update (Linda Rao)**

CO-CHAIR BLOOM: No questions. Okay. Thanks, Dwight. Next is our regulatory agency update. There is no representative from DTSC or EPA. So Water Board, you're up. Linda.

MS. RAO: Okay. Let's see. I'm here to speak for Brian. I believe he provided a Final Closure Report for a J line segment of IR Site 14. And comments on the Draft Final Work Plan sampling activities at former Underground Storage Tanks A25, A58, A296, and South Shore Area 655. For myself, I've been mostly concentrating on the Offshore Investigation Area K. And provided comments sometime back on the Sanitary Sewage Treatment Plant Outfall, the separate analysis associated with that. And then more recently on the IAK Draft Remedial Investigation work planning. And recently I participated in a lot of discussions via phone and e-mail on the Navy's proposed sampling plan, and some of the details associated with that, the sampling locations and the schedule. That's about it.

**VI. CO-CHAIR REPORTS**

CO-CHAIR BLOOM: Thank you. Next is our update. Would you like to go first?

CO-CHAIR HAYES: Sure. The only thing that I have this evening is I'll hand out some flyers for the next upcoming second Saturday access day at the Mare Island Shoreline Heritage Preserve that some, primarily the former Naval Ammunition Depot that's slated to be a regional park and the first 98 acres are already cleared of environmental cleanup issues and transferred to the state and granted to the city for the purpose of using it as a park. So to kind of jumpstart that process, Arc Ecology is hosting a day when it's open each second Saturday of the month. And June 14th happens to be Flag Day, so Steve, here's your color copy of the use of your flag photo on Flag Day, National Flag Day. And so we'll invite you to bring your flag if you'd like. And also, it happens to be the 116th anniversary of the burial of fifteen crew of the protected cruiser Boston who died in an explosion at the ammunition depot those so many years ago. So we'll read their names. And, you know, if you'd like to sing, sing the Navy hymn with us. And that's just an example of what we're

trying to do to kind of jumpstart the use of that area. It's kind of criminal, I think, to -- I guess some of us think to -- or we just want to find a way to be able to use the property for its intended use, since everybody worked so hard and in so many different agencies and the Navy and the cleanup teams to make that property available to the public. And it just seems unfortunate that it can't be a park. So we're just going to kind of pretend it is for a while here until we can kind of figure out how to open it on a regular basis. And yeah, if you want a color copy, Steve, you have to take the one that my dog smashed. It's pretty nice. Okay. That's it.

CO-CHAIR BLOOM: Thanks, Myrna. For the Navy update you can see the two pretty pictures from our last RAB meeting. We had our 14th -- we had balloons and everything -- we had our 14th RAB anniversary at the meeting last month, so there are a couple pictures of some happy folks enjoying the festivities. But as far as the field work goes, we are -- as mentioned at the last RAB meeting -- the Navy is preparing to collect some passive soil gas samples at Installation Restoration Site 17, and that's still planned for July. And as discussed in April, that's the first phase. And then the results from that will help dictate the second phase of work for that, which will include more soil gas sampling, to be active, and then soil and groundwater sampling as well. As Linda mentioned, the Navy is preparing to conduct sediment sampling out in the offshore in August. Hopefully we can resolve some of the comments from regulatory agencies and we'll be able to get out there in that timeframe. Dwight did mention the geophysical report and actually the EE/CA for the Production Manufacturing Area and South Shore Area. As he presented, we're currently in the midst of drafting that EE/CA. In addition, we're working on another EE/CA for the Building 742 Area. And lastly, at a meeting in April we discussed the Defense Reutilization and Marketing Office, or the DRMO site. And we went over some of the geophysical work associated with the TPH, or Total Petroleum Hydrocarbons there, and we're going to be meeting with the regulatory agencies soon to discuss the soil boring and sample locations, hopefully next week.

We submitted five documents since the last RAB meeting to the agencies. Those are in the back of our monthly progress report. And we received comments and/or concurrence on three documents from DTSC, and two that Linda mentioned from the Water Board. And our next BCT meeting with the agencies is slated for next week. Any questions? Yes.

CO-CHAIR HAYES: On the PMA and the south shore EE/CA, the analysis that you're doing to develop a work plan for the cleanup of those areas, since you aren't pursuing an early transfer right now, or at least we haven't heard about one being initiated again, can you tell us what the timeframe is on that and whether you're going to do the environmental work and release those houses as a separate cleanup site to the rest of the south shore and PMA?

CO-CHAIR BLOOM: Well, the timeframe for the EE/CA, the Action Memo and the work on the lower part is what Dwight meant, or what we had up there was '09 and the field work '09-10. As far as analysis, to release it beforehand or not, I can't answer that at this moment.

CO-CHAIR HAYES: Well I'm not talking about whether it was going to be beforehand or not, I just wanted to know where it is, where those houses are in the lineup of environmental cleanup for that part of the island for the Navy. Is that post 2010 then that you're going to try to do the shorelines first and then get around to the houses? We just want to know.

CO-CHAIR BLOOM: Well, as far as MEC issues there or what issues?

CO-CHAIR HAYES: Whatever your environmental cleanup issues are there, you probably have lead in soil and possibly MEC, I don't know if you ever settled that with the agencies.

CO-CHAIR BLOOM: Well, we're in discussions with them on the MEC right now. We may be doing a slight-- I want to call it a geophysical -- screen there. We're not a hundred percent sure on that yet. But we have discussed that with them. As far as lead in soil, we haven't had any recent discussions on that.

CO-CHAIR HAYES: And so, there again, do you have any timing –

CO-CHAIR BLOOM: I don't at this moment.

CO-CHAIR HAYES: -- or prioritization of that property?

CO-CHAIR BLOOM: I don't at this moment. Any other questions?

CO-CHAIR HAYES: This isn't a question. I should just add on that while I was carrying on about June 14th, again put August 8, Friday afternoon, and Saturday the 9th on your calendars, especially those of you who either enjoy coming to free events or those of you who suspect that you're going to be leaned on by me to donate some time or service or money. Put that on your calendar. But certainly everyone is welcome to the Mare Fair, that's what I'm calling the 150th anniversary of the cemetery celebration, as well as acknowledgment of the 64th anniversary of the Portuguese Chicago mutiny, otherwise known by the men as a work stoppage. It took place that exact day, 64 years ago.

CO-CHAIR BLOOM: Okay. Thank you. With that, we'll adjourn. We'll see everybody on June 26th at the next RAB meeting. I will not be here but my staff will be. Good night, everybody. (Thereupon the foregoing was concluded at 9:04 p.m.)

#### **LIST OF HANDOUTS:**

The following handouts were provided during the RAB meeting:

- Presentation Handout – Production Manufacturing Area (PMA) and South Shore Area (SSA) Onshore Munitions Response Update – Navy/ Weston Solutions
- Presentation Handout – Time-Critical Removal Action (TCRA) Fieldwork Update – Navy/Weston Solutions

Features within the EETP – CH2MHill/Lennar Mare Island

Mare Island Deliverable Schedule – CH2MHill/Lennar Mare Island

Mare Island RAB Update May 2008 – Weston Solutions

Navy Monthly Progress Report Former Mare Island Naval Shipyard May 2008

A News Note and Calendar for Mare Island – ARC Ecology May 2008