

**MARE ISLAND NAVAL SHIPYARD PUBLIC MEETING AND
RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES
HELD THURSDAY, JUNE 1, 2006**

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, June 1, 2006 at the J.F.K. Library - Joseph Room, 505 Santa Clara Street, Vallejo, California. Prior to the RAB meeting, a public meeting was held to discuss the Investigation Area H1 Proposed Plan, Remedial Action Plan and RCRA Closure Plan. The meeting started at 7:08 p.m. and adjourned at 9:25 p.m. These minutes are a transcript of the discussions and presentations from the public meeting and the RAB Meeting. The following persons were in attendance:

RAB Members in attendance:

- Myrna Hayes (Community Co-Chair)
- Ken Browne (Solano Sierra Club)
- Gil Hollingsworth (City of Vallejo)
- Michael Coffey (Community Member)
- Brian Thompson (Water Board)
- Neal Siler (Lennar)
- Wendell Quigley (Community Member)
- Jerry Dunaway (Navy Co-Chair)
- Chip Gribble (DTSC)
- Dwight Gemar (Weston Solutions)
- Cris Jespersen (Weston Solutions)
- Steve Farley (Lennar Mare Island)
- Sheila Roebuck (Lennar Mare Island)

Community Guests in attendance:

- Bob Bancroft
- Delia Sanchez
- Kathy Miessner
- Kim White
- Jeff Werter (Sul-Tech)
- C. Altunirun
- Richard Perry (DTSC)
- Diji Christian
- Bill Karlovitz (Weston)
- Jennifer Low
- Alona Davis (Sul-Tech)
- Tony Megliola (Navy)
- Dave Godsey (Navy)
- John Kaiser (Water Board)

RAB Support from CDM:

- Darlene McCray (CDM)
- Leslie Castro (Stenographer)
- Wally Neville (audio visual support)

I. PUBLIC PRESENTATION: *Investigation Area H1 Proposed Plan, Remedial Action Plan and RCRA Closure Plan*
Presentation by Mr. Richard Perry, DTSC and Mr. Dwight Gemar, Weston Solutions

MR. DUNAWAY: Welcome to our public meeting tonight. This is normally a time slot for our Restoration Advisory Board hear tonight, but for this first hour we'll be doing a special meeting, a public meeting formally presenting the Proposed Plan for the remedial action at the area called H1, Investigation Area H1 at Mare Island. And that will entail going through what we are proposing to

do at that site to make it safe for human health and the environment. What I'd like to do is introduce the Department of Toxic Substances Control public participation specialist Richard Perry to describe the public meeting format and introduce the actual presentation.

MR. PERRY: Good evening. My name is Richard Perry. I'm with the Department of Toxic Substance Control. I'm the Public Participation Specialist. And I'm here tonight to facilitate the RAB remedial action plan meeting that's going to be held. This meeting is going to be on the record. It's going to be, as you see, taped by the court reporter, and it goes into the administrative record. So we are on the record at this point for this meeting. I have a couple of ground rules relating to the meeting for the way that it will run: The first is when you get up to the microphone with any questions -- and there is a comment card that you can get, and can you write your questions down as the presentation goes through.

At the end of the presentation, you can come to the mic up there, you have to turn it on with the switch up. Please give your name, your address, spell your name, please, for the court reporter so it's accurate in the record. And then from that point you can ask your question.

Questions will be answered to the best that they can. All questions will be taken under advisement during the public participation 30-day public review. And a document is generated at the end of that called a Record of Comments -- Response to Comments, that's right, and you can get a copy of that.

So it's important for you to sign in so that you can get a copy of the Response to Comments. And that will go out to everybody that's signed, everybody asking a question. If you don't feel like asking a question tonight that you want to get a question answered, feel free to take this, and it's got a FAX number on the bottom, you can FAX that to us. You can E-mail it to us. There is information on the FAX sheet that gives both how to reach me and my Navy contact Michael Bloom, who is not here this evening. And we will make sure that your questions go through to the proper people for an answer and inclusion into the document. With that, I'm going to call up Chip Gribble to give a background as to why the Department is involved in this site. And from there, we'll begin the presentation for the evening and take your questions afterwards.

MR. GRIBBLE: My name is Chip Gribble. I'm the project manager assigned to this site for the DTSC, that's Department of Toxic Substances Control. I've been on this project working on the environmental contamination at Mare Island since 1993. The department is participating in this under the authority of the California Health and Safety Code, Chapter 6.5 and 6.8. Also, under the authority that we have pursuant to CEQA, which is California Environmental Quality Act. The Department has issued an initial study and a draft declaration for this project. Those are on file on our website. They're also on file at the information repository which happens to be here in the library if you want to look at those. And we welcome comments on those, also. The goal of DTSC in this process is to ensure protection of public health and the environment with respect to hazardous materials and hazardous waste on the site. In our role, we oversee the Navy and Weston work for proper investigation and for nature and extent of contamination and risk assessment. We oversee Navy and Weston work for developing proper response action, which is the evaluation of alternatives and the remedy selection, which is part of what we're doing here tonight. We also work with other federal and state regulatory agencies to ensure that the proposed remedy is in

compliance with other federal and state laws and regulations. And finally, we conduct a public participation program to integrate public opinion into the process and remedy selection. So with that, I guess, I'll, pass the microphone to Dwight who's from Weston and is going to give the presentation. If you feel that you want a comment answered tonight and you don't want to ask it, fill out the card and pass it forward, and I'll be happy to ask the question for you if you want to ask and you can't locate anyone and you phrase it yourself. Dwight.

MR. GEMAR: Thanks, Richard. My name is Dwight Gemar. I work with Weston Solutions Incorporated. Weston is the environmental services contractor to the City of Vallejo. And the City of Vallejo has entered into what's called an Environmental Services Cooperative Agreement with the Navy, to effect the remediation and regulatory closure of several sites on Mare Island. And what we're going to be discussing tonight is the proposed final remedy approach for what's known as Investigation Area H1. So as we can show on and see on the agenda -- and you can get hit lights there -- we'll first mention briefly the scope of what's called the remedial action plan, a record of decision and RCRA closure plan. That's a mouthful, but that's one document. A copy of it resides here in the library. And also, as I'll show towards the end of the slide, if you want to let your fingers do the clicking and don't want to hoof it over to the library, you can also see it online. There's a website that I will direct you to that you can pull up a copy online. Following that, I'll give a description of Investigation Area H1, followed by the remedial or cleanup alternatives that we've evaluated. And then discuss which of those alternatives we're proposing for this particular site. And Chip gave a brief preview of the CEQA determination, there's one slide for that. And then there's some question and public comment period at the end, which Richard has mentioned. So in the remedial action plan, there are several topics that I've listed here that are addressed in that particular plan.

Tonight we're going to focus on a description of the site, the remedies that we've evaluated to address the contamination that exists on the site in order to protect human health and the environment. And then we'll describe the proposed alternatives for which we're seeking public comment. Part of the site is also permanent or has an interim status under the Resource Conservation Recovery Act or RCRA and, therefore, there is some particular closure requirements that have to be addressed. And that's also described in this remedial action plan as well as the proposed remedial actions. So this is a map of Mare Island. And Investigation Area H1 is in the center-west portion of the island in the undeveloped area. For reference the causeway is just above the word "investigation," which is one of the main access thoroughfares onto the island. So it's located on the western part of the island. It's a 230 acre area all-totaled including both uplands and non-tidal wetland areas. And portions of Investigation H1 we're used for disposal or processing of municipal and industrial shipyard waste from the early '40s through almost to shipyard closure. On the next slide is a 1985 photograph of what's called the facilities slash RCRA landfill. And this particular area received shipyard waste from the '40ss until the '80s. A portion of the landfill operated under RCRA rules which came into effect in the '80s.

And that's basically the portion of the landfill that's on the western half of this entire facility landfill. This portion was not operated after 1980, but this portion was. And therefore, it falls under some different rules under the RCRA regulations. Currently, this site, even though this is a 1985 photograph, other than some more weeds, the site looks pretty similar to what you see here with the exception that these buildings are no longer there. There is a chain-link fence that circles

this entire area that is maintained as well as the soil cover. All of the waste that was deposited in the landfill over the years has a minimum of two feet of dirt that covers the waste and it's vegetated. And that soil cover is monitored to make sure that none of the waste is exposed due to erosional affects. And as I mentioned in the last bullet, the access is controlled in this area by a chain-link fencing and appropriate warning signage.

This is a 1966 photograph, which is a little hard to make out. But in the mid-50s, the shipyard built a sanitary sewage treatment plant. Prior to this date, sewage and storm water runoff from the island, as I understand it, was discharged directly to Mare Island Strait. But in the '50s, this facility was built to receive sanitary waste from the shipyard. And it was treated before being released to San Pablo Bay. That process was discontinued, as I mentioned, in 1972 when the discharge from this particular -- or excuse me -- when this plant was shut down, and the sanitary sewage from the facility was routed directly to the City of Vallejo's treatment plant or Vallejo's Sanitation and Flood Control District Facility. In addition to the sanitary treatment facility -- which you can actually see a little better photograph here, which shows some of the old digester tanks and some of the overflow basin here and some of the buildings, an industrial water waste treatment plant was built adjacent to the sanitary treatment plant. And as I indicated here, it was operated from the early '70s until 1995 just prior to when the shipyard closed in 1996. Again, initially effluent was discharged to the Bay, and then to the Vallejo Sanitation Flood Control District, thereafter. In the lower part of the photograph here are service impoundments that were used for either blending incoming waste or used for drawing sludge from the precipitation and filtration or clarification steps that were in this part of the facility. These impoundments were actually closed in the late '80s and replaced with above-ground tanks until the facility was shut down.

One of the other activities that was undertaken in Area H1 was disposal of waste oil from the shipyard. This practice was begun in the early '40s and was continued until mid-1960s. It was placed in an unlined pit area which you can see in this photograph here outlined in red. Just for scale, this is Azuar Drive here. And this is what we lovingly refer to as Dump Road, which becomes A Street on the other side of Azuar. And amazingly, you won't find a street sign named Dump Road. I'm not sure why, but it's not there. There was about four million gallons reportedly placed in these sumps over that period of time. And before this area was backfilled with debris and dirt, there was an unknown quantity of oil removed for reclamation from this site prior to its being backfilled.

Another activity that was performed in Investigation Area H1 was the storage of batteries and battery casings from the shipyard before they were recycled or otherwise disposed of, including submarine and forklift batteries as indicated here. This area due to spillage and whatnot had a very high level of lead that was in the soil within this particular area that's outlined in red. And there was actually a smaller area over here that was used for storage above the oil sump area after the oil sump area was backfilled. And this is an old photograph. This is a 1949 photograph. So through all of the various disposal and/or waste processing activities that were conducted within area H1, it did result in some contamination to the shallow groundwater zone primarily. And specifically, within the footprint of the landfill, the industrial waste water treatment plant and the oil sump area, as you can imagine, since some of these sites -- none of these sites had liners in them. So there was some migration, obviously, into the soil and then into the groundwater beneath the soil.

Because of the levels of contamination that existed in these areas, Weston and the Navy on behalf of the City undertook an interim removal action or remedial action in 2004. And what this project entailed was to put a groundwater barrier around these areas that consisted of these high levels of groundwater contamination. This was done by using what's known as a soil-bentonite slurry wall. It's 7,200 linear feet. Its depth ranges from 20 to 25, 30 feet. It encircles this 72 acre area. It also has a groundwater extraction system that's associated with that slurry wall which pulls out that groundwater within that contained area. And it basically prevents any lateral movement of the contaminated groundwater outside of the containment area. And we take the groundwater that we extract from this system, and it's discharged to Vallejo San Flood for further treatment. And to date, as I've indicated here, almost 15 million gallons have been extracted from this containment area.

And this is just a simplified schematic of what the groundwater containment system looks like. It has a vertical trench that extends five feet into the underlying young bay mud. And the young bay mud acts as a very effective barrier to downward migration because it has a very low permeability to water. And in order to make sure that no contaminated groundwater can go under this slurry wall, it's keyed in or dug into this underlying bay mud zone by five feet. And then as I mentioned, inside and parallel to the slurry wall is a groundwater extraction trench, which consists of, again, of a vertical trench. In this case, lined with geotextile fabric and drain rock and soil above it, and a perforated collection pipe toward the lower part.

And its job acts similar to a French drain, if you're familiar with how a French drain works. And it basically, we pump water through this trench through a series of sumps. And as you can see in this depiction, the objective, and it operates quite well, is to pull down the level of water table within that containment area. And again, that serves a couple of functions: One is it obviously removes any contaminated groundwater that is flowing from this landfill mass. And it captures it here. Of course, you also have a slurry wall that prevents the water from going across. It also allows for a lower hydraulic level inside of the containment area than outside. So even in the event of some failure of the slurry wall, the water would flow toward the collection system from the outside rather than having contaminated water get outside of the containment area. So it acts as, kind of, a bath tub affect, if you will.

And here's just a picture of the installation of the slurry wall. And again, this is a deep trench filled with soil-bentonite slurry or bentonite slurry, I should say, before it's been backfilled. And here they're just checking the depth versus the design depth. And that goes all the way around the 72 acre area. The geology at the area of H1 basically consists of three zones, if you will. The first one is what we call the artificial fill, which is basically sediment from dredging activities that was performed by the Navy through the 1900s. The dredge sediment consists of clay and silt which has very low hydraulic permeability, which means it doesn't let water flow through it for easily. In the depth of that fill ranges anywhere typically from 10 to 20 feet in the area of H1. Beneath the dredged fill we have thick layers of what we call young bay mud and old bay mud, which young bay mud is probably 10- to 50,000 years old. And old bay mud is probably close to a million years old. So if anybody ever says they're older than dirt, don't believe it because this is really old. And it does have some interbedded sand layers that underlie this artificial fill. And finally, we have bedrock. Which if you look on the southern part of the island over here where the golf course is, you'll actually see exposed bedrock. And then this bedrock starts to dip toward the northwest. So

along the eastern boundary of H1, the bedrock is at about 40 feet. And then when you get to about this point, it's about 185 feet. And then it, kind of, levels off in this area. So this whole area here you have to go down quite deep to hit bedrock. And there's basically mud with some sand lenses in between certain areas of mud up to the surface.

And I probably should also explain that the original shoreline of Mare Island runs about through here. And everything to the west or this direction of this area here was actually filled in by dredging activities or natural accretion from the San Pablo Bay. So for example, the new housing area is actually in what was offshore at one time. And all of H1 was offshore at one time. And this slide describes some of the groundwater conditions on Area H1. We have three water-bearing zones. We have a shallow zone, an intermediate and deep. And these are separated by clays and silt, as I mentioned earlier, the young and old bay mud. The flow direction is west northwest towards San Pablo Bay. So the groundwater moves in this direction. And the flow rate is very slow, as I indicated, here. For example, the shallow groundwater outside of the containment area, kind of, in this area here, is about five to seven feet per year. And the reason it's so slow is because even the water-bearing zones have a lot of siltiness to them. And the groundwater moves very slowly because of that. In terms of contamination as a result of some of the waste activities on Area H1, as I briefly mentioned, the extraction -- the containment area is routinely detected with elevated levels of metals and petroleum compounds that you would find in gasoline or diesel type products. Occasionally, we do detect some metals in the intermediate and deep zones, but these are very infrequent detections, and typically, are not consistent detections. So the primary zone that we're concerned with, zone 3 -- but the one that's obviously the worse is the shallow groundwater that's in contact with some of the waste.

During the various evaluations of the site, one of the clarifications that was obtained was from the water board, which issued at the request of Weston and the Navy what's called a beneficial use exemption. And this basically says that due to high dissolved solids or the salinity of the water, the brackish nature of the water that it's really not suitable for drinking water.

But one of the other main reasons why it's not suitable for drinking water is that there's very low recovery or flow rates from wells that are placed in the shallow groundwater zone. Typically, we -- when we sample the wells, for example, for contamination, we have to limit the flow rate to 1- or 200 milliliters per minute, which is about a 10th of a gallon per minute in order not to suck the well dry.

So the groundwater doesn't move very quickly. So if you remove water from a well, it takes a long time for that water to be replenished, which is not what you want if you want to sink a well for drinking water or for any other kind of potable use. You want much higher flow rates. But in any event, the salinity or brackishness of the water precludes it from being used for drinking water. And obviously the reason for that the brackishness is the proximity to the bay. I should say that this last bullet is important, though, because even if you don't use it for drinking water, in this case the water board obviously does require that you obtain the best level of water quality that is achievable or background. So that's basically a summary of the physical conditions of the site and some of the past waste disposal activities. I'm going to shift gears now into describing how the remedies -- alternatives for the remedies were developed. The area within H1 was divided or subdivided into three functional areas for the purpose of coming up with an approach for

addressing the contamination of the site. The first area is the containment area, which was bounded by the slurry wall and the groundwater extraction system that I mentioned earlier, which was installed in 2004, which seemed like an appropriate delineation for that particular part of the site. The second area is what we call the upland areas outside of the containment area. And the third functional area is the non-tidal wetland areas. And the reasons that these two subareas were selected particularly, was primarily due to the ecological receptors that are different for the upland areas versus the wetland areas. And by ecological receptor, I mean, basically, animals, birds, mammals reptiles, et cetera. And you have different types that obviously occupy these areas. And a series of alternatives evaluated for each of these three areas. And I'm going to describe some of those alternatives in the next segment of the presentation.

Before I do that, this, again, is a map of the Investigation Area H1. The kind of yellowish area in the center is the containment area. And again, just for reference, the groundwater containment area or slurry wall and extraction system is kind of shown in this purple line that surrounds the RCRA room and facility landfill that's located here. And the industrial wastewater treatment plant here. In this area through here, we have the upland areas. And then we have a series of wetlands that make up most of the eastern portion of the investigation area as well as some wetlands out in the, kind of, northwest portion of the site. And over here outside of the Investigation Area H1 are dredge ponds. So for the containment area, the remedial alternatives basically fall into three different categories. The first is a no action, which we call alternative 1. A second category was on-site containment, which we had a slight variation. So we called it alternatives 2A and 2B. And the third category was removal and off-site disposal. Basically, digging up the entire landfill and moving it off-site. So alternative 1, which is called a no action but in this case it's really not a no action, there are some things that would occur with this alternative.

The first would be that there would be continued maintenance of the landfill soil cover and access controls as is currently being done. And we would continue to monitor groundwater quality outside of the containment area, as is currently being done. We would obviously continue to operate the groundwater extraction system. And the analysis, however, indicated that there could be an unacceptable long-term risk of exposure to humans and the environment. Primarily in the event that waste became exposed due to failure of the maintenance activities to be either performed or performed appropriately or due to some, you know, significant event seismic or otherwise. The second category of alternatives considered for the containment area was on-site containment. Again, this would involve combining a horizontal barrier with the existing vertical groundwater containment barrier to basically seal off the site from rainfall intrusion. And the reason -- or how we would do that would be using some geosynthetic materials, which I'll pass around some examples here in a few minutes and what looks like.

And this would exclude rainfall from getting into the waste, which in turn reduces landfill gas generation potential for leaching of contaminants into the groundwater. The geosynthetics would be covered with soil, planted with native grasses, which would minimize erosion and prevent any human or animal contact with the waste. There would be a series of fences installed to allow the methane gas that's being generated by some of the landfill waste from being trapped under the cap, it needs to be able to escape from underneath the cap. So that's done by venting it. And then finally the existing perimeter groundwater barrier provides redundancy because even if there were some breach of the horizontal cap, the vertical containment system around the landfill would capture that

contamination even as it's being done now. Because there is no horizontal cap installed currently, but the vertical containment system does operate as designed and eliminates groundwater from leaving the site. The third and final category of alternatives evaluated for the containment area is complete removal and off-site disposal.

And there is obviously some challenges here in terms of the volume of waste that would potentially have to be removed anywhere from 600,000 to a million tons of soil and waste are located inside the containment area. And this waste as typical for landfills, it's kind of a hodgepodge of various things: Clay and silt that was used for daily cover. And backfilling the waste is mixed with contaminants as well as concrete rubble that was disposed in this area. Metal debris and wood debris from demolition activities or similar activities undertaken by the shipyard. And also household and office type garbage was placed in this area.

And the combination of this makes treatment fairly impractical, not impossible but impractical. In order to effect this remedy, about 50,000 truckloads or more would be required to leave the site. And this does have the potential to obviously expose workers primarily, but also possibly the public due to the large number the trucks going to and from the site. And obviously, this activity would not eliminate waste nor does the previous alternative. However, this would just merely translate it or relocate it to another facility. And the bottom portion of this figure you've seen before which was the groundwater extraction system. But I've added or in some of the elements that would be added for in this case alternative 2A – although alternative 2B is very similar, which I'll explain in a moment.

But here you have gas vents in certain locations. This black line is the geomembrane cap system, of which I'll describe in a moment. You'd have two feet of soil cover vegetation there. And also a perimeter fence surrounding this particular cap. And that one single line there, I'll, kind of, blow up in this figure, which shows the various elements a little bit more distinctly. In terms of existing waste material, we have what's call a foundation soil layer which consists of a minimum of two feet of dirt. This foundation layer already exists on the landfill because all of the waste is covered with at least two feet of dirt.

We would then in certain areas of the landfill that are particularly prone to gas generation, we would install what's called a geocomposite gas collection layer, which would then be overlain by -- again in certain parts of the site, mainly the RCRA hazardous area -- a geocomposite clay liner, which is a manufactured clay barrier that adds some additional redundancy to the 60 mil high density polyethylene geomembrane, which also acts as a barrier to any water getting into the waste. And then you have a drainage layer above the membrane because it's not permeable. Any groundwater that infiltrates through the cover soil needs to run off through this layer and be discharged off of site, but it would not come in contact with the waste. And then finally, there would be two feet of cover soil and vegetative cover on top of the liner. And I'll pass along -- pass around some examples of the geosynthetic products. These are kind of organized from top to bottom. This one in the plastic is actually the geosynthetic clay liner material. It's kind of dusty so that's why it's in a bag in case you don't want to get dust on stuff. That's made up of bentonite, which is a very low permeability clay. So basically, those are the types of products that would comprise this alternative. And primarily, the only difference between alternative 2A and 2B is that this geocomposite layer, which is actually required not only for the RCRA permitting part of the

containment area but would be expanded over the entire containment area. After evaluation of the various categories of alternatives, it was determined through that evaluation that containment was really the most effective remedy for this particular site. And lists a few rationals for that decision.

One is the use of high density polyethylene material. It's very resistant to biological attack or chemical degradation. It's really the best product on the market. Service life of HDPE that's been buried, which would be the case here, varies obviously with various conditions. But for a condition such as what this site would be exposed to, the service life is estimated at least 500 years if not much more than that. We think that the gas generation or the remaining gas generation life of the landfill, if you will, is essentially going to be depleted within 100 years if not sooner.

Again, most of the landfill has been inactive for many decades. And so a lot of the gas generation is already been taking place. But we estimate that there would be continuing potential for gas generation perhaps over the next 100 years. The containment area in H1, as I mentioned, was built from dredged sediments that were placed offshore through a series of dredge ponds and which were expanded into the bay.

So the entire containment area is surrounded, if you will, by this low permeability sediment, which results in the groundwater moving very slowly, as I mentioned. Also the shallow groundwater in the containment area, which is the most heavily contaminated area on the site which is now contained by a vertical barrier which would be part of this remedy. However, all three water bearing zones are monitored quarterly for contamination. And actually, since the barrier has been in place since 2004, we actually have seen a downward trend in the contamination levels of several of the metals: Copper, nickel and chrome, I believe, are all starting a downward trend, which is certainly good.

Some of the other rationals for the containment remedy is that this would allow beneficial use of some soil with similar contaminants or less contaminants for use as sub-grade under the landfill. We actually have to build a hill, if you will, under the geosynthetic cap in order to allow runoff. A lot of this site, as can you imagine, is very flat. So we have to build a hill, if you will, to allow rainfall when it passes down and contacts the geomembrane to drain off the site. And some soils on Mare Island from other sites such as the Marine Corps firing range would serve a useful purpose in that regard. Also, the remedies that I'll describe here in the remaining part of the talk for the upland areas and the non-tidal wetland areas consist of a number of smaller areas that we would like to dig up and consolidate into this containment area. Since the containment area is already impacted, we want to remove the impacts from outside of the area and replace them within and on top of areas that are already impacted. And lastly, although not necessarily the least, there would be much less impact we believe to the public in terms of eliminating the trucks that would otherwise be going to and from the site. In this case, a soil cover would be impacted -- or implemented, and there would be some scraper traffic taking soil from the adjacent dredge ponds and using those for soil cover. But it would eliminate the truck traffic going to and from the site.

So now, I'm going to continue on with the upland areas. And this slide just lists a number of remedial action objectives for the upland areas. In addition to human health risk reduction, there are a number of ecological receptors which I've listed here that currently are exposed to levels of contaminants that are -- that exceed their tolerance for those metals. And therefore, that soil should

be removed. And also by removing the soil, it would eliminate the potential for migration of contaminants into the shallow water-bearing zone, and further, reduce any movement into the adjacent non-tidal wetlands.

And it would also by putting a two foot soil barrier on top of the site after the hot spot soil is removed -- or the soil is removed, that would also limit any potential residual risk if there are any munitions or radiological items. And for those of you that know much about Mare Island, because of its history, in some areas there's always the risk -- or in some areas there's the risk of discarding munition items. We have found in the past some munition items within the containment area. However, to date, we have not found any outside the containment area. But nevertheless, there is that potential. And so part of this remedy, as I'll explain in a moment, would include a protective soil barrier to eliminate that low risk even further. So the categories of alternatives considered for the upland area are again alternative 1, no action. The alternatives 2, 3 and 4 are all very similar. They differ primarily in the amount of soil that would be excavated.

And the type of soil that is removed is referred to as hot spot removal. And this is based on primarily ecological hazard quotients. Of course, any soil exceeding the human health criteria would also be removed. But a lot of the soil also has ecological risk that really drive a lot of the removal. So for alternatives 2, 3 and 4, that basically results in increasingly greater amounts of soil that would be removed in order to result in lower and lower levels of risk to ecological receptors. They would also include groundwater monitoring, two foot of soil cover, as I mentioned. And in addition to human health safety, that also further reduces the ecological risk. Because any imported soil would actually have lower levels of background levels of metals and such that you would normally find on Mare Island. And there would be some institutional controls to control what types of activities that would go on the on the site in the future.

And alternative 5 would be complete removal with off-site disposal, which would result in a much - - a more significant impact, primarily off-site as I mentioned would be the case with the containment area. And this measly looking chart here is actually a representation of the areas that we consider hot spots that are shown in red.

And if we chose alternative 2, only the sites in red would be removed. However, in this case that's the majority of them anyway. For alternative 3, both the red and the green areas would be removed. And finally for alternative 4, which results in further reduction of risk to ecological receptors, the red, the green, and the blue would also be removed. Also, there are some areas that I'll mention toward the latter part or the end of my talk -- and I'm getting close so hang in there -- that would be created some new wetlands over here. And finally, the this entire area would get a two foot soil cover. The proposed remedy is alternative 4, which results in any soil of what's called a hazard quotient greater than three, and as well as any human health risk or a threat to groundwater would also be removed.

And the third functional area and last is the non-tidal wetland. And here again, the objective is to reduce exposure to soil contaminants. And there are again a number of ecological receptors, all of which are important. However, it's probably good to point out that one of the ecological receptors in the non-tidal wetland is the salt marsh harvest mouse, which is a federally-endangered species and also a state fully-protected species.

So there are some special considerations that have to be given for protecting the salt marsh harvest mouse which we had taken in our proposed remedy. And finally, this remedy would also reduce exposure risk from ingestion of surface water. And here we go with the alternatives for the wetland areas: Again, a no action alternative, a hot spot removal, wetland monitoring, institutional controls and further requirement to maintain wetland habitat in perpetuity.

And similar to the upland areas, there's a map here that shows the areas that would be removed by various degrees of hazard quotients. And in this particular case, we're proposing alternative 5 which results in an hazard quotient of one which is the least amount of risk for the background at the site, and would involve the removal of all these locations that I've shown on this particular map. And there are some other required actions that would be performed as part of the remedy: We propose to create a little over eight acres of new wetlands to replace seven acres of degraded wetlands within the containment area.

These wetlands within the containment areas are affected by prior waste activities. However, they still are wetlands because they were never filled in. So those would be filled in and capped and new wetlands would be created outside of the containment area. Before we can do that, some of these wetland areas inside the containment area contain habitat for the salt marsh harvest mouse, primarily pickle weed. And we would have to trap and/or what's called passively relocate, which is basically hand-remove vegetation to try to herd any mice that are present to the perimeter and away from the containment area for their own good. And then that would be prior to capping. There is an existing trapping program that's ongoing on a continuing basis by the city. And that was part of an agreement with the U.S. Fish and Wild Service with the Navy when they decided to do the reuse and turn over the shipyard for commercial uses. And this particular activity traps predators of the mouse, including burrowing animals which are things that we're interested in because we want to minimize how much maintenance we have to do on the soil covers. So by keeping that population down, that will enable us to do that.

But if this program also removes things like feral cats. So if you live on the island, keep your cats indoors. And I've met the trapper, and you don't want your cat to meet him. And finally, there's a number of long-term maintenance activities that would be performed for 30 years at a minimum or perpetuity, if necessary. As well as institutional land controls, which would be in place should the Navy ever transfer the property. Those institutional land controls would go with the deed and would have to be recorded with the property. And as an example of one of those operations and maintenance activities, this shows a photograph with the containment area shaded. And the dots in yellow represent groundwater monitoring wells that we sample on a quarterly basis in both the shallow, intermediate and deep zones. Some of these are what we call background wells which are located up gradient or uphill, if you will, from the soil contamination. But most of the others are in areas that either have -- either are outside, obviously, of the containment area to determine whether there's any potential movement from the containment area.

But also there are some contamination areas here that would be removed from the hot spot removal. And this network of monitoring wells would help to determine if the contamination was, in fact, being reduced, and to, obviously, ensure the effectiveness of the remedy. So here's a breakdown in relative terms of the three selected alternatives for the three functional areas and what their

individual costs are. Obviously, the containment area being the largest and more complex remedy is by far the most expensive. The Navy actually has transferred the funding for the environmental services of H1 to the city to provide monies for both the cleanup and the long-term operations and maintenance.

The city distributes those funds as work is performed. And pending remedy approval, the work would likely be completed by the summer of 2007 with long-term care thereafter. And I think this is where I turn it back over to Richard or Chip.

MR. PERRY: We'll open this up for public comment. For those of you that have come in late, I'm just going to quickly run through the ground rules again. When you come up to the mic, please give your name, your address and spell your name for the court reporter so she gets it right. This is an administrative record that's being created tonight. You're going to be going on the record. In order to get a copy of the Response to Comments, we need to be able to reach you at your address. So those that have asked to maybe leave their questions and those of you that are going to ask questions tonight, if you haven't signed in, please do so. If you wish to ask a question or make a comment after the fact, as I said, in the fact sheet there is your contact information for me and Michael Bloom from the Navy. I'll be happy to give anyone my business card which has all my numbers that you can reach me. Some of you already got that and can reach me.

So to that, I would like to open this up for public comment. If anybody would like to come forward. All those phone calls I've taken the last ten days and no one wants to come forward. There was one question that was put to me, and I hope the gentleman has signed in so he can get an answer because I doubt he can get an answer tonight it is complex. And it is simply: "What are the steps being taken to try to mitigate the future flooding of Mare Island due to global warming, i.e. just allowing creation of the future toxic swamp?"

And to be honest with you, given the nature of that question and the debate that goes on inside the scientific community, I don't think you're going to get an answer tonight on that. I will pass this along to those people that have more knowledge of it, and it will be considered in the response to comments unless somebody cares to speculate.

MR. GRIBBLE: That was not considered in our evaluation of the remedy, as well as some other related parts to that issue. We can't define what the future sea level will be, so we really can't define what kind of parameters we'd have to design this to. We can't define the weather changes that might occur. And therefore, can't include that into the design either and so on and so forth. However, in the post-closure care plan and in the operation and maintenance and the ongoing monitoring that will be conducted, and that will have probably an annual report that we will expect Weston and the Navy to generate, we'll be looking at that. We'll be looking at a five-year statutory review that the Navy and DTSC will conduct. So there will be an ongoing effort – or periodic effort to re-evaluate the effectiveness of this remedy and to make changes if we need to. Whether it's the fence is falling down or it's not working or we have a lot more rainfall and we need to make adjustments for that.

MR. PERRY: You may have to turn the switch up to turn the mic on. Yes, ma'am.

MS. MIESSNER: My name is Katy Miessner, M-I-E-S-S-N-E-R, and I've signed in. I have several different questions: First of all, it sounds like this is not a permanent solution. So how long are these containment barriers expected to last? And do you have examples of other areas that have this -- that have used this process for containment, other landfills? I have a list of questions, so I can read them all off or I can address them individually.

MR. PERRY: If you just want to get on the record and have your questions considered and placed in the Response to Comments. Go right ahead, just list your questions. If you are expecting a response tonight, though, then you're going to have to ask the question and we'll find somebody to answer them. It's entirely up to you.

MS. MIESSNER: However you want to do it.

MR. PERRY: It's entirely up to you.

MS. MIESSNER: I think addressing each one individually is probably better. So if you can tonight.

MR. GEMAR: I can take a stab at it. The vertical barrier is made up of soil and Bentonite, and Bentonite is a natural clay product. So that really some not degrade, it's a natural product. It should last ions. There's always a chance for seismic activity to shift the soils and potentially cause a problem with that vertical barrier. However, one of the benefits of a slurry wall is it is made up of material that is fluid and somewhat self-healing, if you will, as opposed to a rigid barrier. It has a lot of give to it. So when the soil moves, that soil and Bentonite mixture will give and take. And, you know, you could have some subsidence but probably not much. There's a lot of debate in the scientific community about geomembranes, which if you saw the examples passed around, I used the value, as I mentioned, of about 500 years or more is basically the most recent information that I could find on that particular barrier. And in this case I think that it will outlive the gas generation life of the landfill.

But even after that may be gone in 1,000 years from now or whenever, if it degrades completely, you, in this particular case, have the natural product properties of the silty clay type material. And we also have a slightly elevated PH on the island which is greater than seven, so it's slightly alkaline, which does help to tend to complex the metals into a low solubility compound, an hydroxide. The movement is very low, and we see that even now. Even though we don't have a horizontal barrier, the groundwater and the contaminants are typically associated in very close proximity to the source of the waste and they don't migrate very quickly. So I think that this site has a lot of natural properties that will tend to mitigate potential movement even if the fiscal barriers on the surface degrade over hundreds of years.

MR. GRIBBLE: I'll add to that by saying: Following -- assuming that the department approves this RAP, following the approval of this RAP will be a remedial design plan, which will give all the engineering design and details to follow through on remedy. There will also following that will be an operation and maintenance plan/post closure care plan that will be generated. And in there, you may want to pay attention to those, too, we're going to have contingencies for things that -- things that we reasonably can anticipate. Such as damage from an earthquake. And you could have a

slope failure. You could have differential settlement from a big void in the ground that we don't know about right now. And at some point that refrigerator there rusts through and the soil collapses and there's a big pocket in the geomembrane and the cap and that needs to be repaired. So contingencies like that we think that we can reasonably anticipate will be addressed in that operation and maintenance plan. You may want to pay attention to that to make sure we're covering all the things that you think we should be covered. Some of these things we just have to account for, the design has to be corrected from time to time for these things. It is a permanent remedy as permanent as we can make it.

MS. MIESSNER: So that leads to a couple of other questions: One, so it sounds like these 72 acres would be off limits permanently. And then so you talk about 34 million cost for this particular plan, the long-term plan. Where does that funding come from and can you estimate how much that would be? Especially if it's forever --

MR. GRIBBLE: I don't have that figure in my mind, but maybe the Navy does. Maybe Jerry wants to chime in here. We understand the Navy is on the hook for this in perpetuity for that long-term cost. And the long-term cost actually is supposed to be included in the estimated cost for the remedy.

MR. GEMAR: It is.

MR. GRIBBLE: Do you know what that permanent cost is?

MR. GEMAR: It's about a quarter million dollars per year but it's kind of a sinking fund. So there's money that are invested now. And the returns from that investment helps to keep that fund liquid into the future, kind of, like an annuity.

MS. MIESSNER: And then you described a little bit about what's in there, the toxic stuff like lead and metals, I think. Is there any nuclear waste in there and exactly what kind of metals are in there?

MR. GRIBBLE: In terms of nuclear waste, I would be -- we can't be sure what's in there. We've never investigated the interior of the landfill for contents. Knowing what we know about the Navy's practices, it would be very unlikely that there would be nuclear material in there, meaning fissile material. What is potentially in there is radiological materials. The Navy did a lot of radiological work in the shipyard, not just from the naval nuclear propulsion program where they have power plants. But they had nuclear chemistry laboratory work over here on the island. And they also used radiological materials for other things such as radio-luminescent markers on decks -- or ships so you could see in the dark and things like that. So there's a wide history of radiological materials usage by the Navy.

As to what's in there, what we did do is we did a surface survey for radiological activity in this area. In other words, a walk-over with detectors to see if there were elevated readings at the surface. And the results of that survey, which happened in 1995, the conclusion was there was no excess radiation or radiological activity at the surface. But there's no -- that survey doesn't tell us anything about what's below the surface, which can be shielded from the soil and other debris on top of it.

So in the monitoring program, in particular the groundwater monitoring program at the periphery of the containment area, one of the contaminants that will be monitored for possible contaminants will be radioisotopes.

MS. MIESSNER: One of the questions I had of the presentation was some of the groundwater is coming into the Vallejo San and Flood and how do the metals get removed from that? And where do they go?

MR. GEMAR: Well, the Vallejo Treatment Works would typically add chemicals to precipitate the metals into hydroxides or similar forms that are very insoluble. And then they add other chemicals to help what they call flocculate or drop out those metals from the water. And then they have a sludge that's left over that's a very small volume of the initial volume. And then, of course, once the metals are removed then the water goes into, I'm sure, trickling filters or other devices that help use biological activity to break down any organics.

So the main thing they would see from our groundwater -- and we sample the groundwater before we send it to Vallejo, they have certain acceptance criteria. And we since we started the system in the latter part -- or early part of 2005, we're well-below the acceptance criteria. Again, the metals in the ground that we see are things like nickel and copper, and those levels, though, are very low in the ten parts per billion or even lower range ten to twenty. So again, that helps in my mind reinforce what we have learned about the landfill area. And that is that although we do have contamination, especially directly in contact with the waste, it does not appear to be migrating very much because we don't see it coming from the extraction system. The levels are there, but they're very low.

MS. HAYES: I also wanted to note, Katy, just to give people who would live here in Vallejo a comparison. I'm the chairperson on the advisory committee for the Vallejo Sanitation Flood Control District. And one of the things that is comforting, if you will, about the landfill, the water that's being collected out of the landfill is that it does continue to have detectable levels of contaminants low enough that the sanitation district can accept it for treatment. The most amazing thing to me in contrast is that the city of Vallejo's water treatment plant fails the acceptance criteria for the sanitation district permit. So that gives an idea of how low I believe the concern is from the contaminants coming off of the landfill. It's kind of ironic but true.

MR. GRIBBLE: In our -- and eventually in the final groundwater monitoring plan that we will have after the remedy is completed, we will have contingencies in there for if the contamination levels in the discharge water or the collected water changes over time. That's one of the things we'll want to watch for. And at some point it no longer is an option to discharge the Vallejo sanitary, then the Navy will have to come up with an alternative proposal for treatment for disposal. So the remedy doesn't require disposal or discharge to Vallejo sanitary -- Sanitation Flood Control District, it simply requires proper disposal or legal disposal. It certainly is possible and something we need to pay attention to that the profile, the chemical profile of that waste water changes over time.

MS. MIESSNER: I have two more questions. I think probably the best solution, which I think is non-affordable is remediation and making -- bringing that land back to be able to be used. And I can see him shaking his head. There's bioremediation and as technology changes in future years, how willing is the Navy or the city investigating other solutions and maybe digging up all the stuff?

MR. GRIBBLE: That's an interesting question. Some of the things that you're referring to -- based on some of the contamination in there, bioremediation wouldn't really address. Some types of contaminants could be dealt with and some of those methods. But nothing is going to break down chromium, for example, or lead, for example. Lead will always be lead unless we can find a way to make it radioactive with a K and turn it into non-lead.

So there are certain treatments that you could do right now on some of that waste and reduce the hazardous nature of that waste or the amount of it. But it still would be not complete and it would still propose a risk. The other part to that is even if the money were available and technologies were available, that wouldn't in itself mean that this would be a preferable way to proceed. Just the act of exposing this stuff, digging it up, we think could present a real hazard, a real risk. Having to remove any of this stuff off the island, we think could pose a significant risk and a significant impact -- well, I shouldn't say we think. It may pose a significant impact just through virtue of moving it through the community and the risk that it would pose. We didn't really evaluate that in detail in our CEQA analysis but that really would be something that would be a significant consideration and one that would make us pause at least in that approach to the remedy.

MS. MIESSNER: One more question: I think the aesthetics of the 72 acre fence, how is that going to be dealt with? I live right next to the new homes, that's right adjacent to the new homes, and it seems not a best solution for those folks that live over there. So is there any -- are you guys going to address that at all, the aesthetics of that fence?

MR. GRIBBLE: Well, as it stands right now, we don't have, as I said -- we don't have remedial design plan finalized. We do have a draft. By the way, we started a draft -- Weston has started a draft which we've reviewed. And I think at this point all we've talked about is the height and the idea that we're looking for barbed wire at the top.

In terms of what type of fencing or the thickness of the fencing or the color of the fencing or other things that could -- are more aesthetically tolerable, if you will, I think there's some room for some input there if you had some considerations that you wanted to bring forth. We haven't gotten into that at that level of specificity yet and in the fence design.

MS. MIESSNER: I actually do have one more. It's not really a question, it's more of a comment. Your first question that was raised that someone called in about potential for flooding. It was mentioned tonight that the houses are actually built on what used to be wetlands. And it's -- it was filled years ago, I'm sure. The potential for flooding exists, we see it with Katrina, and it's going to continue if you believe in global warming, which I do. And the fact that you can't address it because you're not really sure about weather patterns, is there any kind of emergency plan of evacuation with the potential there could be a flood there and it's pretty dangerous stuff.

MR. GRIBBLE: Well, there may be, but that actually would not fall under our jurisdiction, under the Department of Toxic Substances Control. The remedy that we're proposing would not change the exit pattern or the exit ability for people that are on the island. It has no effect on the residents or the businesses, the employees out there, their ability to evacuate, for example. So there's no impact in that sense to the people on the island in that sense. So as far as that goes, we really don't have any regulatory jurisdiction on that, so I really can't answer that. That probably may be a city question.

MR. THOMPSON: Brian Thompson. One of the things to consider is a lot of the concerns about global warming are put on a geologic time scale. And contrary to some of the releases that have come out, there wouldn't be a sudden increase in floods. The landfill issue is probably monitored on an annual basis. And if water started to encroach on it, then the remedy might be looked at again.

MR. GRIBBLE: In terms of a tsunami, by the way, you might want to go over to the Army Corps of Engineers, Sausalito station where they have a really fascinating display model of the entire bay. And they do experiments there on hydrologic experiments on the bay and environment. And one thing you might be interesting to see some day for them to generate a little wave coming in through their make-up Golden Gate housing area.

MS. MIESSNER: That's all I have, actually. Thank you.

MR. WHITE: Sir, my name is Kim White. I live at 57 Ventura Street here in Vallejo 94590. And I wanted to get something straight since nobody seems to know exactly what's in there, but the solution that's been chosen is to go containment area that is going to last 500 to 1,000 years. I'm assuming that what's in there is pretty serious waste.

MR. GRIBBLE: We don't know the full nature and extent -- the full nature of the contents of the waste that's in the containment area. We have a lot of information about it, but it's not complete. We have a much better picture of the contamination outside the containment area. And the waste in the containment area we think is significant and poses serious risks, especially if it's not contained.

MR. WHITE: Is there any guess as to what effects there would be on human health if someone is exposed to whatever is in there?

MR. GRIBBLE: Well, Dwight, do you want to maybe describe -- give a little better description on the contents.

MR. GEMAR: Some of the contents include asbestos, petroleum products, metal plating type waste, I'm sure, from a lot of debris from wood and concrete. No doubt some PCBs mixed with oil. A lot of oil from the former sumps. So you know, anything that you could probably imagine would be something that a shipyard would want to discard is most likely in the landfill. In terms of risk, if you were to dig up the waste and be exposed to it for a lifetime, I believe our calculated risk was about an increase in cancer risk of about one in one thousand. Typically, the government likes to keep that risk tolerance to anywhere in one in ten thousand to one in a million. So your risk if you

were to be exposed to the landfill waste for a long time would be a factor of a hundred or more than normal.

MR. WHITE: I have another comment, and that is on the topic of bioremediation. I'd just like to bring to your attention this book was published this past fall by Paul Stamets. For the court reporter that's S-T-A-M-E-T-S, Paul Stamets. It's called my Mycelium Running, How Mushrooms Can Save the World. He's done some amazing cleanup projects. I believe he was also contracted by the Department of Defense to do some cleanup projects and they have worked. There are many different kinds of fungi for specific kinds of toxic waste. A lot of it is delineated in this book. And I would recommend looking at this text. And it might save the Navy some money because mushroom spores are really cheap to use. That's all I have.

MR. GRIBBLE: Thank you.

MR. WHITE: Thank you.

MR. PERRY: Are there any further comments from the public?

MS. HAYES: Do I count as the public? My name is Myrna Hayes. I just want to very quickly note a couple of things. First of all, we really have -- this is not a plug for Weston, this is really an appreciation for a team of most unlikely, I think, characters to actually pull these plans together.

We actually do have Weston their proposed reuse of the dredge ponds to thank for ratchetting up the containment, the remedy for the landfill up -- right up near the top of the projects at Mare Island. As the Restoration Advisory Board, we weren't making too much headway because -- in getting the landfill up at the top of the list. Being that it wasn't perceived as being an economic generator for the town, it wasn't going to recreate the 10,000 new jobs to replace the old jobs that were lost. And we weren't really being very effective, and the regulators weren't either in trying to get the landfill contained. So it was just going to be sitting out there really at the bottom of the list. So I want to thank the city, the Navy, Weston, the regulators and certainly members of the Restoration Advisory Board for getting in and tackling this really difficult site early rather than letting the area languish and lag behind the perceived more lucrative parts of the island.

What benefits have been, I think, for the entire -- an example of how important it is to get in early and get to work on solutions to some of the more complex sites that aren't necessarily going to make the money is that it's my perception having worked on, you know, listened on and participated in this process for the last few years that because of the conservative nature and the tremendous effort and money that the Navy has set aside for this project, and the team that's been brought together, and the way that we've been brought in and informed along the way, and asked what our opinions were and our concerns were, we have -- this -- we've reached this stage where we are just about ready to put that landfill to rest in a caretaker way with a long-term monitoring.

And then the people who do come to work and live and play -- not just the people who live next door, but everyone who uses the island -- is going to be able to sleep better at night, work better during the day knowing -- and play -- play better knowing that that area is secured to the extent that we have the technology at this point to do that.

Will better ideas come along? Will new technologists develop to treat mixed waste? That will be very, very intriguing for me even though I'm not a techno, I will be very interested to hear when those opportunities come up to experiment on that. And finally, I want to go on the record as being very dissatisfied with the perimeter fence around the entire containment area. The containment area was, I think, a really practical way with the Bentonite slurry wall, a vertical barrier to contain several different sites that had varying differences in levels of risk to the public.

And I am going to go on record as being extremely unhappy with how long it took DTSC to come to the table, talk with us about alternatives. And that without coming back to the Restoration Advisory Board, to the community, it just summarily made a recommendation to cover, you know, everything – contain everything with a fence. And I think the U.S. Fish and Wildlife Service no better example than people who are managing endangered species throughout the country learned in the '50s that a fence is an attractive nuisance.

If you want people to stay out of an area -- in this case you would put up warning signs against ticks and rattlesnakes and you'd have the job done. And I think that it sends the wrong message. I don't mean to back the agency into the corner. But I think it's an ultra -- I'm not alone in thinking that it's an ultra-conservative approach that really hasn't met the spirit of the community's wish and plan from day one to have portions, at least, of this area accessible to the public. And I think what it's going to do is I'm concerned that it may backfire in that, you know, not providing a pathway or, you know, a benign way for people to experience the area will make them necessarily turned into trail blazers. So I'm concerned it won't be an effective remedy and certainly won't be aesthetically pleasing to this community. I know it would be going up against a huge wall, and I don't mean to try to undo the whole process that you've gone through to make your decision, but I think it probably sold the community short. And I want to go on the record with that comment.

MR. PERRY: We'll adjourn for five minutes so the court reporter can blood back in her fingers.

(Brief break.)

MR. PERRY: Are there any others?

MR. GRIBBLE: The department made it clear to Weston and the Navy that we would entertain their proposal of other alternatives in addition to the other ones that were proposed. The cap design that we're proposing with, that we're going with was in particular the cap over the RCRA unit was pretty much the standard cap that the department requires over RCRA hazardous waste landfill.

MS. HAYES: I was talking about the part outside of that area.

MR. GRIBBLE: The Navy and Weston were -- we made it clear that it was up to them to propose other caps that would have been more robust. In other words, have a cap that's not so susceptible to damage from public access. The real purpose of the fence is to limit the damage that will happen to that cap over time and especially if the public is allowed to have access to that area. Weston and the Navy could have chosen a different design or a more robust cap which would have cost a lot

more money to have a cap as part of the remedy that wouldn't have been so susceptible to damage through public access --

MS. HAYES: Well, I --

MR. GRIBBLE: Excuse me. And they chose not to do that. These are the options and alternatives of the remedies that they chose to present and go forward --

MS. HAYES: Well, actually, in our meetings, we did have alternatives and we were offered other ideas such as four foot additional cover underneath a trail. And that's the kind of thing that I think would -- not to back the agency into the corner, again, not to have you out swinging, but just to say that the community -- because you hear the comments tonight misunderstand, I think, of what transpired. That the fence is theoretically to protect the cap, but that there were other mechanisms that we did consider and actually weren't brought back to the community who are the people that live here.

So I think it's important that we go on the record that there could still be, you know, four feet of cover, for example, much more robust, as you say, underneath the trail areas of the portion of the non-RCRA portion of the landfill. And I think that would probably satisfy the DTSC and not be a great deal more cost for the Navy and Weston and probably make the community's heart sing. So it's just a lesson learned and it needs to be at least considered in the record.

MR. GRIBBLE: At a focus meeting other things were discussed particularly by members of the RAB. At one point Weston did propose a trail across the containment area. Weston and the Navy retracted that part of the remedy alternative. We didn't reject that. We haven't rejected any alternative at this point. And you're right, we could still come up with a remedy proposal that would require public access and a more robust cap. Weston and the Navy would have to have agree to that, and we're not -- I believe the department isn't into trying to make the Navy perform to a higher standard than what was required at other sites across the state. So it's up to Weston and the Navy to propose another alternative that would be more robust than the one that is currently being proposed for approval. So your criticism is misdirected there, I believe.

MR. PERRY: Are there any further public comments? All right. Before I close out the public meeting portion of this evening, I again want to encourage you, if you have something on your mind, something you want to get to us, as I said, there are addresses, our E-mail, you can get my business card, the facts sheet has both the Navy and the DTSC contacts. And we want to hear from you. We want your questions. And as I said, it will go into the Response for Comments. If there is no further public input, I'll officially close the public meeting portion of this evening. I'm going to turn it over to Jerry Dunaway who would like to say a few words.

MR. DUNAWAY: Thank you, Richard. Thank you, Chip. Thank you, Dwight for the presentation. Sorry this meeting is going as long as it has, but it is an important meeting, so thank you for sticking around. I did want to acknowledge that the Navy has worked very closely with our partners on this cleanup. The City of Vallejo entered into a cleanup agreement on this remedy with Weston who is the City's contractor and worked very closely with the regulatory agencies not only DTSC, the Department of Toxic Substances Control, but the Regional Water Quality Control

Board, San Francisco Bay, U.S. Environmental Protection Agency-Region 9, Fish and Wildlife Service, U.S. Fish and Wildlife Service, California Department of Fish and Game. We've worked with many folks on this. Last but not least, members of the Restoration Advisory Board here. So I appreciate all the work put into this. I believe we're going to take a break now and resume our normal restoration meeting after a short break.

MS. HAYES: Sounds like a commercial. The short break is going to include the celebration of you as our Navy co-chair, Jerry, for the last six -- six years March. And this is Jerry's last evening here. I think you've already taken up your new work at the Navy in a different capacity.

MR. DUNAWAY: Thank you.

MS. HAYES: So without taking more of your time, what I'd like to do tonight is to kick off a celebration during our break of Jerry's work as our Navy co-chair and the base environmental coordinator at Mare Island for the last six years. We have some refreshments, cake. Probably as good a time as any to bring up a couple -- I'll give you a card signed by us. And to bring up a couple of the items that are back here that are gifts from us to you. Neil, if you could bring them up, I think I'm supposed to be offering them to Jerry on behalf of the RAB's behalf. And then thanks to Weston and Lennar for helping us out with special refreshments this evening. The bouquet of flowers is from my garden. It's what happens when you work on projects at Mare Island and don't have time to water, fertilize prune, they just grow. And they did not grow on the landfill area, so I guess that could be a good use, income generator.

MR. GEMAR: I'm going to present Jerry with a photograph of his favorite site. And I would like to have everybody sign the margin. And I'll put it on the back table. We'll put some nice covering on it and ship it out to you, Jerry. But if you would just scribble your congratulations or best wishes or condolences to Jerry, and we'll get it shipped out to him.

MR. NEAL SILER: And Jerry, under the same vein, this is another collage and photograph of your favorite site for the last six and a half years. And the RAB and regulatory agency, we want to send this along with you. And we're not going to make you carry that home on the plane tonight, but we are going to make you take all the ice cream home and the roses, the thorned roses.

MS. HAYES: So Dwight, where is that photo? Maybe you could bring it back and we could have the official photo session. Would the other RAB members please join us. We don't have to stand behind the podium, but if you could quickly join us for a photo shoot, and then we'll go directly to ice cream and cake. And thanks again, Jerry, for the unbelievable work you've done from afar, particularly.

MR. DUNAWAY: I was going to say some things towards the end of our Restoration Advisory Meeting, but better say it now. I appreciate all this. This is all really something. I first came onto Mare Island in early 2000 and saw it as quite a challenge. Meeting the Restoration Advisory Board and working with them has really been a unique experience that I wouldn't exchange for anything. It really has taught me a lot. But more than anything, watching how our work collectively has transformed the base into a community with residents on it, businesses flourishing, and more to come in the future has really been something I'll take pride in. And when I'm up here with my

family or friends visiting, I'll be sure to stop in and see how the progress continues. So thank you all very much.

(Brief break.)

II. RAB ADMINISTRATIVE BUSINESS

MR. DUNAWAY: Your mailing packet has the April 27th meeting minutes. Please let Myrna or Michael Bloom know if there's corrections to that. We had a RAB site tour on May 13. For those who could not attend, it was a good day. Lots of nice pictures were taken. And hopefully, maybe we could get those up on a website, on the Mareisland.org website. But we have extra tour packets for those who were not able to attend. And I have a fair amount of them here that summarizes the tour and has pictures and such of those sites. So I have those up here for those who want them.

The August 24th, RAB meeting date is moved to September 7th. So that's a few meetings out, but just wanted to let you know that. And it will most likely be held at the Mare Island marketing center. This meeting room is not available on September 7th.

III. FOCUS GROUP REPORTS

Jumping into the focus group reports, let's jump right down to the city report from Gil. We don't have the other attendees from the other focus groups.

a) Community

Vacant.

b) Natural Resources (Jerry Karr)

Absent.

c) Technical (Paula Tygielski)

Absent.

d) City Report (Gil Hollingsworth)

MR. HOLLINGSWORTH: We do not have any environmental issues pending before the city council.

MR. DUNAWAY: Thanks, Gil. Steve do you want to provide a Lennar update?

e) Lennar Update (Steve Farley)

MR. FARLEY: You bet. I'm Steve Farley, F-A-R-L-E-Y, with CH2MHill. I have two handouts: One is the normal eleven by seventeen, and then there's a series of spreadsheets that are also at the

front table that show the status of various documents in production. A couple of highlights, for the sake of time, we've had in the lower part of left-hand side of the figure under "Environmental Site Closure Status," since the last meeting we've had one additional PCB site closed and four additional UST sites closed. Maybe small progress but progress nevertheless.

Let's focus for a second on the left-hand side, the photographs on the left-hand side. This is sort of five stages of some work that we're doing on the left side of building 535 at a PCB site. Basically, we're moving an overhead structure. You can see on the bottom photo we removed the structure, removed the concrete, doing load out of the concrete. This was actually as of today. We'll then go back into the area and we'll move about a foot and a half of dirt and then collect confirmation samples to demonstrate that there's cleanup of the PCBs in the soils.

On the right-hand side of the figure the upper right one looks like an obstruction figure for putting in a new suspended ceiling is actually a photograph showing some incapsulation work that we're doing on the underside of the mezzanine ceiling. On top of this ceiling is an active transformer. And in discussions with the agencies, incapsulation of the underside was determined to be necessary to protect any future workers in that area of the building. And so the gray color there is actually incapsulation. The other figure on the right-hand side is shows some work that we were doing at DOM4. DOM4 is sort of in the upper center portion of the figure is a wet well. And for those of you who don't know what a wet well is, this is where a sewer line comes into a pumping station. And a wet well is, sort of, a large underground tank where water comes in and accumulates and then the water is pumped out later on.

And we had gone in there and done some clean-out of the inside of the walls of that wet well. What's interesting about this is this was confined space work, and it's very serious work. You can see the number of folks there that are harnessed up and on supplied air and that type of thing. That was an effort I think they finished last night at 2:30 in the morning. So a long day there.

One other thing real quickly -- two things actually really quickly: UST 742 in the lower right portion of the figure, I reported last month on some work we had done there. We completed all the remedial actions. We are now going to backfill the hole. We're now going to go back to the site, install a monitoring well, do some long-term groundwater monitoring before we request closure for that site. And then in the central portion UST 231, you see the location where we're going to go back in and do some soil gas monitoring. But in order to do that and have the data be representative, we've got to wait for the water levels to drop another couple of feet. And once that happens, we'll go back in and perform the monitoring and soil gas monitoring that is contained in the work plan that we wrote several months ago. So that's the big picture.

MR. DUNAWAY: Any questions? Thank you, Steve. Jumping to Cris.

f) Weston Update (Cris Jespersen)

MR. JESPERSEN: I'm Cris Jespersen, Weston Solutions. First off, I wanted to say thanks to Dwight for pitching in for me last month when I had my knee banged up. And did want to make one correction to the meeting minutes and that is I'm not too old to keep playing softball. Handouts should have been circulated here. First paragraph there we've already completed our public

meeting, as we indicated there, the first couple of hours here tonight. One other item of significance that took place last month and it looks like we finally agreed on the wording for the biological opinion between the Navy special wildlife services, it's been a long time coming. We hope to receive the final version of that document in the next couple of weeks. Western-Magazine area we've been working on doing geophysical mapping on some of the potential ordinance items out there. Digital survey is complete and now we're proceeding with investigating the anomalies. I don't want to berate the point, but we have found a few ordinance items there and some grids where the Navy had found some ordinance items in past surveys. Those six grids are complicated by metallic debris and some railroad ballast rock and items. But will be continuing working getting the anomalies in the next month or so.

And finally, we had a big occasion here last month, of course, which I missed when my knee was banged up, but we took a 16 inch [phonetic] battleship we got to open up the magazine and thoroughly destroyed them last month. You can see a couple of photos there at the top. One shows putting another explosive charge on the rounds and then thermal destruction as we blow them up. So as a member of the RAB [inaudible]. So a big event. And that's all I have tonight.

MR. DUNAWAY: Thank you, Cris. Moving on to regulatory agency update. Chip, do you want to start off.

g) Regulatory Agency Update (Chip Gribble and Brian Thompson)

MR. GRIBBLE: I was asked if we have received recently an updated version of the RAB contact sheet. Did that ever get updated and circulated?

MR. DUNAWAY: The RAB mailing list?

MR. GRIBBLE: No. No. The list of RAB members and phone numbers, et cetera.

MR. DUNAWAY: We have an updated list, correct. Wendell was the most recent addition to that list. I'll see if I can get that sent out.

MR. GRIBBLE: And that's it. I have no report.

MR. DUNAWAY: Thank you, Chip. Carolyn is not here tonight from USEPA. So why don't we move to Brian Thompson from the Water Board.

MR. THOMPSON: I also have a correction to the meeting minutes last time, and a comment. I hope what I said here at the meeting came out a little more clearer than the way I read it in the minutes. But there was a misprint of Agnes Farres' last name, F-A-R-R-E-S. And she apologizes for not being here tonight. She's been looking at reports of the H1 area and was hoping to be here but was sick today. So I'll be reporting back to her. As far as a comment, I do have a general comment in terms of looking at screen analysis for TPH. I've received documents from the Navy on portions of Mare Island and also for the eastern early transfer parcel. And I'll be looking at those together to try to provide some consistent response from the Water Board for Mare Island as a whole. And I anticipate doing that sometime soon. That's it.

IV. CO-CHAIR REPORTS

MR. DUNAWAY: Thank you, Brian. All that's left is our co-chair reports. Myrna, did you have a report? So why don't I do my co-chair report. And we have a monthly progress report, looks like this. We have a picture of the USS Antonio at the top of that next to the Statue of Liberty. And basically, we had a few things that relates to the Restoration Advisory Board here that occurred over the last month or so. The tour on May 13th was a great tour I thought. And we got a chance to view a variety of sites. A lot of interest in the southern part of the island where we have ongoing munitions investigations and cleanup work. Dwight described some of that. And I believe a lot of folks learned a lot just from seeing what our contractors do out there. In addition to Weston Solutions, the Navy has a contractor, ECC, conducting work in the offshore area which is very complicated environmental work. And we're making good progress out there. And kind of leading the way on how to do work in marine environments. Moving forward to the potential early transfer parcels discussed on the backside. I just wanted to touch on that because it is a current project we're hoping to make progress on over the next couple of months here. I believe that we are expecting a proposal from Lennar and the City of Vallejo in June. Is that about right, Sheila?

MS. ROEBUCK: I think that's about right. That's what we're working toward. We're going to have our own internal kick-off meeting next week. And we'll firm up the schedule. And if there's any change, we'll let you know.

MR. DUNAWAY: And we're looking forward to that. That will help get to a milestone that we can then make further progress on. And eventually get to the point of issuing the finding of suitability for an early transfer. And that report will be fairly concise in describing what that project will be about. And it will, essentially, kind of follow the path of how we conducted the prior early transfers here at Mare Island—transferring environmental cleanup responsibilities, and the Navy funding that cleanup work over a series of several years. And hope to get those remaining parcels at Mare Island on a fast-track to redevelopment. So the Navy is looking forward to seeing that happen. And with that, why don't I turn this over to Myrna for her co-chair report.

MS. HAYES: I want to thank everyone who put together the tour, and who attended it. And Wendell for Manny your partner pinch hitting for you. Hopefully what he was able to take in from that tour was useful for your community as well. I want to note that a rather large portion of that proposed early transfer is the southshore of the island which is planned as a regional park and would also be planned to either as a direct transfer from the Navy or as part of the settlement agreement and land exchange with the City of Vallejo and between the City of Vallejo and the State Land Commission, that portion of the island will be coming -- become part of the public trust lands that are on Mare Island. Those are sovereign lands of the people of the State of California and they are held in trust for a wide range of activities from recreation, wetland restoration or natural resource restoration, industrial uses, anything that is in the public benefit and requires access to maritime area such as the river shore.

And to help people understand more about what those properties are on Mare Island, and where they are, some of the issues around some of those unique properties, on June 8th, which a week from tonight from 6:30 to 8:45, we'll be in this room, will be a public forum on visions for the

public trust lands on Mare Island. And they're vast acreages, 2,800 acres in the western early transfer parcel actually were transferred from the Navy to the State of -- back to the State of California after having been on loan for about 150 years. And it will be a real challenge and opportunity to utilize those lands in the way that they have historically been envisioned and used in California. Anything from refineries to bridges to parklands to industrial operations, fishing are all allowed on those lands, but some use -- and private uses aren't. So I'll -- I've then been asked to be a panelist as has the City of Vallejo and other folks. So if you're interested in that topic, that's a week from tonight. And see me if you want more information or want the flyer about it E-mailed to you.

MR. DUNAWAY: Thank you, Myrna. And with that, I'd like to thank you all for the six years of experiences here. I hope to make it back to a RAB meeting because I know there will be one soon. I will see you all later. Thank you.

LIST OF HANDOUTS

The following handouts were provided during the RAB meeting:

- Presentation Handout - Investigation Area H1 Remedial Action Plan, Record of Decision, and RCRA Closure Plan
- Navy Monthly Progress Report Former Mare Island Naval Shipyard May 2006
- Lennar Mare Island RAB Update May 2006
- Navy Fact Sheet: Proposed Closure Plan for Investigation Area H1

(Whereupon, the meeting was adjourned at 9:25 p.m.)