MARE ISLAND NAVAL SHIPYARD
RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES
HELD THURSDAY, MARCH 31, 2005

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, March 03, 2005, at the J.F. K. Library, Joseph Room in Vallejo, California. The meeting started at 7:06 p.m. and adjourned at 9:00 p.m. These minutes are a transcript of the discussions and presentations from the RAB Meeting. The following persons were in attendance during this month's RAB meeting.

RAB Members in attendance:

- Myrna Hayes (Community Co-Chair)
- Mike Coffey (Community Member)
- Jerry Karr (Community Member)
- Diana Krevsky (Community Member)
- Paula Tygielski (Community Member)
- Jerry Dunaway (Navy Co-Chair)
- Jill Votaw (Navy)
- David Godsey (Navy)
- Cris Jesperson (Weston Solutions)
- Chip Gribble (DTSC)
- Carolyn d'Almeida (DTSC)
- Gary Riley (RWQCB)
- Sheila Roebuck (Lennar Mare Island)
- Steve Farley (Lennar Mare Island)
- Patricia McFadden (Navy)

Community Guests in attendance:

- Diji Christian
- Tommie Jean Damrel
- Susan Young
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RAB Support from CDM:

- Regina Clifford
- Doris M. Bailey (Stenographer)
- Wally Neville

I. WELCOME AND INTRODUCTIONS

CO-CHAIR DUNAWAY: Good evening, everyone, thank you for coming tonight. Welcome to our Restoration Advisory Board for the month of April. It looks like Sue injured herself back there, but she made her way to the RAB meeting anyway. My name is Jerry Dunaway for those who don't know, I'm the BRAC environmental coordinator for the Navy here at Mare Island, as well as the Navy's co-chair for this Restoration Advisory Board.

We do have an interesting presentation tonight talking about the munitions characterization program the Navy would like to do this year down at the south shore area. And we're talking about the entire south shore area, both the offshore area as well as the onshore area. We'd like to get some things done at both areas to further progress the work we're doing down there and hopefully get that much closer to finishing it. But why don't we start with our usual round of introductions around the table and in the audience.

(Attendees introduced themselves as requested.)

II. PRESENTATION: *Munitions Characterization Progress at Mare Island's Southern Parcels.*
Presented by Patricia McFadden, BRAC Program Management Office and John Bowles, ECC

CO-CHAIR DUNAWAY: I want to introduce our special guest tonight, Jill Votaw, who is our new public affairs officer who is helping me get some things done in the way of press releases and other things. She is the new PAO for our new BRAC program management office in San Diego. So she'll be focused on just the BRAC sites and only the BRAC sites, and we're glad to have her on our team. So if you want to talk to her during the break, please introduce yourself. Why don't I go ahead and bring Patricia McFadden up here. Her and John are going to present tonight's topic on munitions, so I'll just turn it over to Patricia.

MS. MCFADDEN: Thank you, Jerry. Welcome everybody, and I've seen most of you before. And this, you've probably seen a lot of this information before, but we always try to include some kind of new synopsis of it that leads us into what we're doing. By all means if there's questions during the presentation, feel free to just raise your hand or get my attention and we can ask 'em, but I do have a place for questions at the end as well. So what we're going to talk about is a brief overview of the munitions work that has been done at the production manufacturing area, the PMA, and the south shore area which I will call the SSA, but I usually just call that the south shore when I'm talking. So just a brief overview of what I'm going to be talking about. I'll go through a little bit of the history.

Then we'll talk about the MEC work that's been completed to date, and I've got some summaries of some of the results from that. And then the key part is identifying some of the MEC data gaps. And MEC is defined later, but it is munitions and explosives of concern which is the new terminology of what was previously UXO. And then at the end I just want to give you guys a heads up of some planned field work that we're hoping to do in the fall, and talk about what the goals of that field work will be.

So a brief historical overview. The shipyard, of course, was established in 1854. Most of you have probably seen this slide so many times that you could recite it from memory.

CO-CHAIR HAYES: You mean it's not a new slide?

MS. MCFADDEN: No, I mean it varies, it's the same data we always have in these. But basically this is an outline of the munitions history in Mare Island. But it was established in 1854, and from very early on the munitions history started down in the south end of the island at some of the earliest buildings. The munitions facility began in 1857 with a handful of other buildings. The munitions facility was designated as an ammunition, naval ammunition depot in 36. It then transitioned to becoming an annex under the Naval Magazine Port chicago. It changed names at various times. But the key thing is it was a munitions handling facility until 1975.

From 1975 until 1996 when the base closed there was just typical operations, maintenance and office spaces and various things. And of course in April, '96 is when the shipyard itself closed.

This is a well known figure of all the UXO areas that were identified in the earlier studies of the base. And the ones that I'm going to be focused on are the production manufacturing area here, and the south shore area here. And then later John Bowles will be talking about these offshore areas related to the onshore areas. But I'm talking about the land based issues. A little bit more on the history. It goes into some of the specific ordnance and munitions handling that was done here. From 1857 to '75 this area was used for storage and processing and different things. Some of that processing including emptying and refilling of black powder munitions. Also, there were a lot of buildings constructed at various periods. We saw the major buildup of the buildings in the 1940s as a precursor to the World War II. And we also, there was some added facilities in the late 1900's for loading gun cotton. In the 1916 era there was some work done with explosive D, ammonium picrate. Those that have the history here know that picrate was an issue raised and dealt with in some past cleanups, and we still have some issues there.

And of note as you'll see later, that several of these buildings that were constructed have a crawl space underneath them, and due to soil subsidance or just the construction of the day, they've got an area under there that in the past could not be surveyed. And so that's one of our issues that we're still trying to resolve.

So what were the sources of munitions and explosives of concern or MEC in these areas? Both the production area and the south shore area was obviously the manufacture and repair of munitions. So that's what brought munitions to this area. We had disposal of obsolete or unwanted munitions if they couldn't be repaired. We had the issue of mishandling of munitions, dropped off a ship, dropped off a pier. We had fires and explosions that happened on ships or out at detonation ranges that lead to some damaged munitions. And then you had some common disposal practices of the day. And that would be burying underground, discarding it into the water, or using detonation ranges. So those are all things we looked at. A little brief overview of reuse. This may seem like we're jumping to the end, but this is something we have to look at. We look to the future of what the reuse is when we're considering the cleanup that we do.

The northern part of the PMA is scheduled for light industrial commercial, that's reuse area ten. That's actually a little, a change that the city is working on that's different from the original reuse plan. And then the southern part of the PMA as well as the south shore is scheduled for recreational use, and that's reuse area twelve. And there's a task force that has been working on a lot of the planning for that reuse.

You know, in terms of reuse, we haven't gotten to that point of transferring these areas yet because we have not closed the regulatory issues with the MEC yet. We're still a little bit of a ways from doing that. And one important thing to note is that the MEC that we have found historically since the work has been done is not fired or armed like you would find on a firing range, and that has to do with, you know, the level of risk that you expect, the explosive risk that you expect from the munitions that we find here.

And just again, of note, something that is, something that weighs into, you know, how the Navy and BCT and the city work to prioritize sites is there are some discussions, talking about early transfers for these parcels, that are in the early stages, and we just take that into consideration.

Okay. Here's a slide with a lot of the history of what's been done here in terms of the MEC work. And it basically follows the circle process. Early on as the base was closing we did a preliminary assessment which looked at all the areas of the base and identified the areas that could have potential for munitions.

Then we followed on with a site investigation that was done by SSPORTS. And they did visual and geophysical surveys of the areas identified. And that information was used to develop plans for following investigations. And what we had in these areas was UXO intrusive investigation of the PMA and an area north of that which is called IR-04, and the south shore area. And that was conducted from '96 to 2000, and the work plans followed that field work.

What they did during that field work was they marked and verified the anomalies that were identified in the site investigation. And then went out and conducted a hundred percent survey and investigation of those anomalies using magnotometers and metal detectors which was the current technology of the day. And they excavated and removed what they found, except such things as utility lines or large items that couldn't be moved. And we've also related, but not directly related, we've done recently a geophysical survey of the offshore and the wetland areas, and that was recently completed in 2004 and 2003 sections. And we tried to overlap some of those shoreline areas so that we would not have any gaps between what was considered land and what was considered offshore. But we did end up finding that some areas of the offshore couldn't be surveyed due to underwater obstacles or topography or some technical issues that we had with the detection technology.

So let's start talking about what did we find when we went out there and did the work back in the '96 to 2000 timeframe. Over a thousand anomalies were identified in the site investigation, just in the 75 acres that makes up the PMA. And all those detected anomalies were investigated. As you can imagine, the anomalies covered lots of miscellaneous metal scrap, but it did also discover live and inert MEC as well as a lot of non-hazardous scrap. And, of course, utility lines and other things are detected in that process as well.

Again, those MEC items were all unfired and unarmed. And it's just, some of the key summary things to note is that, of all the items that were found -- I should have put this on there -- but 277 items were found total, and 232 of them were found in a cluster near one of the buildings A2-66. Another twelve items were found near buildings A1-59 and A2-56 which are in close proximity to A2-66. And then all the other, all the live items were really found in six of the grids. And when I show you the map you'll kind of see what I'm talking about. When we do the investigation it's done in kind of a methodical way using grids. And then other than small arms and some propellant grains, no other live munitions were located in the PMA.

So it just gives us, what we've done is we've taken the past reports and kind of summarized them a little bit to try and put a new perspective on the extent of the work done and what we actually found. So another key point is that no MEC items, live or inert, were actually found in the northern end of the PMA. And in addition to that removal we also removed almost 2,000 cubic yards of soil from lots of different excavations as we found different contamination. So this is a map that helps show you, this is building A2-66. Down here would be pier 34 for those of who know your -- but what this is key in showing is that you really see a finite number of the grids

where the live MEC was actually found. And these descriptions show that those items were actually all Civil War era, which was pretty consistent with a lot of the items found in this area.

For this reason, you know, I think we highlight this area of the PMA as perhaps a, an area that we need to put a higher level of concentration on when we do some follow-on investigations because we can, we can start focusing our investigations on the areas where we may have a higher risk. In the south shore there's a similar approach. We had, again, over a thousand anomalies in about the 49 acres of the south shore area. Again, they were all detected, all the anomalies that were detected were investigated.

We broke up the south shore into three areas because there's kind of three, there's a, three areas that are marked by dikes and piers that jetty out into the water. But dike twelve and pier 35 actually had no munitions findings in that area, and that's basically the west side of the south shore.

We also had, between pier 35 and dike fourteen we had a couple of significant things. We did find twenty different live MEC items in three grids that were there. And previously to that in the same area there was a large removal, emergency removal action by the EOD, the explosive ordnance division on the base. And they removed a large disposal pit that was right near dike fourteen. So we just took that into consideration just kind of in summarizing what we know about the area. The third area, dike fourteen to pier 34, there were again about 236 items that were found in three grids along the shoreline, and again most of it was found in one of those grids, and a few items in the other grids.

So of all the live MEC items found in the south shore, they were again in only six grids of all the grids that were surveyed, and again all those were unfired and unarmed. Again, there was a lot of small arms and propellant grains, but from a risk perspective that's a much different consideration. And again, we did take out over 500 cubic yards of some contaminated soil from a burn pit area. And the next slide shows where those are. So these red grids, these red squares show grids that had any kind of live item found in it. But you can see when we look at just the ones that had greater than small arms in it, it's really just these three, these three grids here, this star designates that disposal pit that I talked about that was excavated outside of this investigation, and then there's three grids over here that have items.

So again, this is just information that we're going to use to help analyze and prioritize where we focus our investigation. Not that we won't be needing to assess a lot of the other areas, but it helps us to prioritize where we might find more items that we're looking for.

So what are the data gaps that we have from this past work? It was a very extensive project to do that investigation. And they did, you know, they used the best technology of the day, but you know, it's 2005 now, a lot of technologies have changed. The world of dealing with discarded munitions has changed a lot. And so we're basically rethinking, okay, what do we need to do to answer the data gaps at this site? And what are those data gaps? Basically a lack of geophysical data from the past work leaves us with not really enough information to fully assess the remaining risk. You know, typically in the work done today you would actually create a geophysical map that shows where all those metal anomalies are. You'd be able to see the

variations between those anomalies, you'd be able to map it realtime and assess it further after you collect it. And that technology just wasn't readily available at that time.

Also, the areas under the buildings couldn't be served due to the technology limitations of the time, but we have a lot of technologies that are developing that will allow us to answer that question. We also need to complete a comprehensive conceptual site model that looks at both the land and the building construction dates. And by the land construction dates I mean that the shoreline actually was filled in over time, and those areas that were filled in may have actually covered up ordnance that was buried in the past, and we need to look into that. Also, there's some discussions we've had recently about how the land and the shoreline relate and how erosion and sedimentation can affect where we would expect to find munitions. And so we're looking to create a better conceptual site model than what we had in the past.

And again, we need to deal with the offshore investigation. We're dealing with it separately, but there are relations between the land and the offshore. So we still need to do the investigation in the offshore, we're not as far along there, but it will relate to, they'll both relate to each other in terms of the risk that we expect. And then, of course, this is all part of the CERCLA process. We still need to go through that CERCLA process, develop remedial investigations, feasibility studies, look at all the options, look at all the risks, and work with the community and the regulators to determine what's going to be best for the sites and for reuse. And that will be followed by a record of decision when we get there.

So just to show you what some of those data gaps look like, this is actually a map from one of the reports. And these green areas are the areas that couldn't be surveyed, or in some cases weren't surveyed because of other pertinent information. But you could see some building outlines.

This pink area is designating a different survey technique because of topography there. But, you know, there's a fair amount of area that's covered by those buildings, and we need to answer whether there's a risk there or not. And then this is actually showing what we mean in terms of when there's a gap like this under a building, we can surmise that there may have been an area where somebody may have disposed of something if they were trying to get rid of something quick or they didn't want to, you know, deal with it, you know, or that it was just a handy place. So we want to look at these areas and so we're looking at new technologies for that.

This series of maps here and I'll just go through 'em, I'm not going to talk about 'em in detail, but what we did is we pulled out a lot of old archival drawings to see how the shoreline changed. Interesting to note, this is circa 1883, this is what the ammunition area consisted of was a pier and a few magazines, a section of lighthouse out there. And then this is all kind of marsh area. You can see a lot of the finger piers and other features of Mare Island aren't there yet.

And then you can see, circa 1911, you really see a lot of the areas of development have happened. You've got piers. We use this to try and date which buildings appeared at which time and how that land was built. Because different eras are of greater concern based on what we know about how munitions were disposed of. So you can see, this one is a little bit more cluttered, but you can see how in 1940 there is a lot more density of buildings, you see a little

more of the shoreline developing, you can see a little of the south shoreline developing. It just creates a bigger picture of what we're needing to look at.

I think there's one more. By '46 it's, you know, fully built up and, you know, having gone through the World War II and it's now continuing its mission. This is just another more modern map that we've taken a lot of information of those archival maps and tried to summarize, you know, what eras the land was created and what eras those buildings came and went. And that's going to go in our risk analysis in terms of where we need to look for things and where we will be less concerned.

So how are we going to fill these data gaps? We call it a validation study. It also is basically a follow-on study of the past removal actions. And this will entail a lot of different features. But the main feature of it will be another geophysical survey of the onshore areas. And the goal of that will be to determine the remaining concentration of the anomalies, and relate that to the remaining risk of potential munitions and explosives of concern. We will assess the geophysical anomalies and determine if they should be investigated or not. We'll determine, you know, what we need to do in terms of assessing that remaining MEC risk. We'll create these geophysical databases that will be used to make these decisions.

And we'll also do some work to survey under those buildings that haven't been surveyed yet. Andagain, make those same decisions of how do you confirm that something that you see is an anomaly is a munition. And also, we'll complete that conceptual site model by providing information that outlines areas of greater concern based on all the information that we have including past use, anomaly findings, land construction, land use, etcetera.

And again, we're going to follow on with the, after these studies, with the CERCLA process, remedial investigation, feasibility study, and take all that information and digest it and talk about it and figure out if we need to collect more information. And then eventually figure out what's our remaining risk and how can we address that risk by designating a remedial option that will suit reuse and be protective. So this is kind of an example of, you know, how that study will be set up. These are grids that are set up, that's basically a tracking tool for when you find the data. This area is kind of consistent with an area we may have greater focus on because of past findings. It may mean that we do, you know, a greater intrusive investigation there or a greater concentration of grids. It could be various things, but this is just an example of how that might be laid out. So next slide, John.

Just the, to give you an outline of what we're doing. We issued a scope of work to do that geophysical survey work for the PMA and the south shore in February. We actually just received the estimates from the contractors. We'll evaluate those and select, based on best value, a contractor to complete that work. We'll coordinate that schedule with the BCT in terms of where that work fits in with the priority of other work. And in an ideal world we can actually be out there perhaps in the fall of '05 doing the work in conjunction with answering the questions and the data gaps that we have.

So that's the end. I know it was kind of a lot of information and I'm sure there's lots of questions. But if there's any specific questions about the slides or the projects that may be coming up?

MR. KARR: Yeah, Patricia. On the data gaps you, on one slide, lack of geophysical database on past work, when was that past work conducted?

MS. MCFADDEN: Yeah, that's on a previous slide. But when I say the past work, I mean the site investigation and the intrusive investigation that was done between '96 and 2000.

MR. KARR: And you don't have that data?

MS. MCFADDEN: No, what I mean when I say geophysical data, when the surveys were done in the investigation, the site investigation, what they did was, what the technology could do at the time was they could identify that there's an anomaly here, and then they identified the location of it. So we have maps of the location of where anomalies were. But in today's era what you would also have is you would actually have that geophysical data, a picture of that geophysical data, meaning if you -- what's a good way to describe this?

When you do a geophysical survey, depending on where the item is in terms of depth below the surface and how big that item is, you get a different signal. And in today's technology you could actually keep the information of what that signal is in a database and be able to reference that in the future when you're actually trying to assess that this anomaly may be a little bit more important in terms of its probability to be a munition than this anomaly over here, where we didn't have that in the past, we just had location databases. So --

MR. BOWLES: This is digital.

MS. MCFADDEN: Yeah. It's basically, it's an increased amount of information that we'll be able to obtain and use and manipulate to make decisions. So we have all the information from the past, but it's not, it's not to the degree of detail that we need in order to make the decisions that we have to make today. Does that answer your question?

MR. KARR: Well, somewhat. But it implies or it reads that the previous information was not adequate. And I don't think that's what you mean.

MS. MCFADDEN: No, I don't mean that it was inadequate. What I mean is it was the technology of the day. And the, you know, in five years a lot has changed in that technology, and a lot has changed in terms of the regulatory environment and the public environment and the public knowledge of munitions and there's a -- Chip, maybe you could help me. There's a difference, there's a way of saying it's not inadequate, it's just that we need more information than that provides to make decisions.

MR. GRIBBLE: The old -- is this on? The older surveys were analog, and what they're doing today is digital. In other words, in the old days you had an operator out there with a machine that, you know, rang off when he went over something, and he alone interpreted whatever that machine was, the signal on that machine. And that leaves the regulatory, us regulators without any ability to agree or disagree with his determination. So he said at this point there's an anomaly, but he said there wasn't an anomaly anywhere else, and we don't have any documentation of that. The standard that the regulatory agencies go by today is a digital survey which shows, you know, generally a hundred percent of the area, what the signal, what the

reading was. And then it allows the regulator to go back and see whether or not we agree with their interpretation of that signal.

MS. MCFADDEN: And we actually do have some digital information, but not for the entire area. And, you know, it's really just a matter of, you know, we need to bring it up to the current standard.

CO-CHAIR HAYES: Well, the other thing that I wanted to know is I know that when we were discussing or coming to a decision on the western early transfer, and that was the big effort of Weston's contractor was to try to take that digitalized data that was graphically portrayed to us, and have us be a part of the decision- making process rather than just depending on an interpretation of a geophysicist to decide for only that person's, depending on that person's ability to decide whether something represented a risk or what was probably a pop can.

MR. GRIBBLE: It was very graphic.

CO-CHAIR HAYES: What?

MR. GRIBBLE: It was very graphic.

CO-CHAIR HAYES: Yeah, it was, it was colorful too. So --

MS. MCFADDEN: I hope that answers the question. That was a very good question, because I certainly didn't mean to imply that we didn't either have the data or that it was, you know, not adequate for the time. But it just is, there's a new standard that we need to work with. Are there any other questions or comments? Diana?

MS. KREVSKY: I was just curious. I was curious to know if you have a timeline set up? And approximately how is this going to play out in each, you know, area of investigation? Just what do you anticipate?

MS. MCFADDEN: The immediate timeline is, and John Bowles will talk about the offshore timeline, we're actually hoping to get out there this summer with a work plan coming out actually next month, mid-April. This field work we've just, we've just put out the scope. If it becomes in agreement with the BCT and everybody that this would be a priority, I think the earliest we can get out there is probably the fall to actually do the survey, then we would still be looking at a long-term process in terms of evaluating the data, building it into the CERCLA process.

So we're still a couple years out certainly in getting to some kind of remedial decision. But we are hoping to move it to the next step by collecting this information. Because there is, as Myrna said, a lot of discussion that comes from it by actually involving the parties in looking at those anomalies instead of just having them be a red dot on the map. You actually get a measure of degrees, meaning there will be stronger anomalies and weaker anomalies, and we'll work with the BCT and the RAB to determine what the best approaches are to investigate those. So it doesn't quite answer your -- the immediate timeframe is hopefully the fall, but we're still a couple years out from getting to a final remedy.

MR. COFFEY: Patricia, I know you guys are going to be crawling around in crawl spaces and stuff like that. But what about the older historical buildings? And if you find something underneath those buildings, if it's a historically significant building what are you going to be able to do about it? Are you going to stir up the building or just make notes that it's there? Especially if in the future some of these historic buildings people might want to tour them or something like that, and if there's something underneath them

MS. MCFADDEN: At this point we don't anticipate any destruction of buildings to do this, we're trying to work around the existing structures. There's a lot of buildings out there, and some of the historical ones are a good example that are actually on, flat to the ground. So this conceptual site model that I mentioned as one of our data gaps is going to look at when the land was constructed, when the building was constructed. And a lot of those historic structures will fall into the arena of where they are less of a concern because they were already built before a lot of the munitions handling was at issue. But there will be some that are, certainly there will be some historical buildings that we will need to survey underneath, but we're really focusing on the ones that had access.

The, but we will potentially have to address long-term controls for when a building is demolished if we think there is something under it. It's basically, it's going to run the gamut of buildings that are not of concern. Buildings that are of concern but we have a remedy we can do that is not destructive to the structure of the building. Buildings that are of concern that we can't access, and we'll really have to work together as a team to figure out what needs to be done there. It may be a long-term control. You know, it could be demoed if we thought the risk was sufficient to warrant that. But obviously the historic factor would come into play there as well. So I don't have an answer for you, but the historic will be one of the factors that we look into when we're looking at remedies for the buildings or underneath the buildings. Are there aany other questions?

MR. KARR: Yeah, just a comment more than a question. On your handouts, and this is for just about anybody that gives a presentation to the RAB and their handouts. Your slides where they're color coded they're very informative, on the handouts we might as well not have them. I mean especially this one, data gap land and building dates.

MS. MCFADDEN: Yeah.

MR. KARR: It's so small I can't read it. And then all this wonderful data of color coordinated items, you know, it's immediately lost when you move on. I know it's more cumbersome and costly for production, but people should consider that if it has a value to hand out to us it ought to be in a usable condition.

MS. MCFADDEN: Yeah, and one thing, you're right, we basically, you know, I look at a couple considerations, one is I don't want to, you know, print out a lot of the slides full page and have a lot of paper loss and, you know, color copying, obviously our office doesn't have it. But one option we can do is put them all on the website so everybody can access them and you could, you know, look at those. I think can they download from the website as well?

MR. KARR: That would be perfectly adequate.

MS. MCFADDEN: And certainly in the future if I can possibly have color prints of larger ones available. That's a good note, I appreciate that. Yes, Paula.

MS. TYGIELSKI: When you are resurveying areas that have already been surveyed with older technology, how much in the way of surprises do you expect to find? I remember when we were going over what they were doing in the dredge ponds, pretty much the new technology showed how good a job had already been done. I don't think they found anything that was a surprise. And do you consider that to be much the case here or do you think you're going to find a lot of surprises underneath the crawl spaces of the buildings?

MS. MCFADDEN: Well, we didn't look at the crawl spaces in the past, so that would be new ground. But in terms of what I expect to, you know, my hypothesis is that I think we'll find a similar situation. I think we'll show that, you know, for the most part that the past investigation was very thorough. But we will probably find some items that are there, either because they couldn't be detected by the technology at the time, or because they weren't removed at the time, meaning debris may have been out there, because there was a lot and it's very hard to remove every scrap of debris out there. I don't anticipate that we'll find any major, you know, disposal pits that were missed. I really think that what we'll find is that, and that's really the goal is to show that we did a thorough job in the past, this data will support it or identify whether there have been flaws, maybe one area was more flawed than another, I'm not sure. But really we'll let the data talk for itself, you know. But this, you know, the idea of it is to validate it, that's why I use that term because I think it was valid, but we need to collect information to show that. And, you know, but what -- the data will be what the data is, and we'll address it regardless of what it is. Did you want something, Myrna?*

CO-CHAIR HAYES: Yes, I have a couple of questions. When, on one of your slides here the results of the intrusive investigation of the PMA, and you say that you took out 1,900 cubic yards of soil, and I assume that was because the soil had a high level of MEC related contaminants in it. Will you be, can you confirm that? And then will you be also surveying for those contaminants in the second round?

MS. MCFADDEN: Yeah. Yes. The primary contaminant there would have been lead, copper, and zinc which are metals typically associated with munitions. But if we, during that investigation if we also found, say, fuel contaminated soil or other contaminants, we also removed that. So it was a mixture, that 1,900 cubic yards was a mixture of either munitions related or miscellaneous chemical related. If we found it, it was removed. And this current work is just going to be the geophysical surveys, so we won't be dealing with that. But when we do follow along with some kind of intrusive work, we will do the same thing.

If we find a munition we will confirm that there's either no munitions release from that or metals release from that. And certainly if we come upon any other chemical contamination, we'll address that. You might be familiar with some of the metal anomalies found that were actually in the north end, they were actually paint cans that became then a cleanup issue, you know.

So in a way I think in terms of how valid the past survey was, I think it actually went beyond the scope to identify other areas of concern. So we will address that when we do an investigation, but that won't be part of the survey.

CO-CHAIR HAYES: On the next slide after that you have locations of live MEC within the PMA. You mentioned that there were certain high risk areas that you thought were in that area. Why did you think they were high risk areas? What did you mean by high risk areas?

MS. MCFADDEN: What I mean is because the areas where the munitions were found are concentrated in an area, I would consider that general area higher risk than, say, an area where no live MEC was found in the past investigation. Or even less risk, you know, an area of even less risk would be where not even inert MEC items were found. So it's basically, what I'm talking about when said risk I meant when live items are found and they're found in kind of a concentrated area like we found here, I would consider that when it comes to the survey I'll expect that anomalies in that area are potentially more likely to be met than say in some other area. And that may be a consideration when we're doing investigations.

CO-CHAIR HAYES: I just have a couple of other questions. One, on your MEC data gaps you said that you'll develop a record of decision with the BCT and the RAB. Is that the only parties involved in the development of a record of decision?

MS. MCFADDEN: It is a, I think it involves all interested parties. Certainly the city comes into play, but certainly the primary is the BCT and the RAB. But we'll include all parties that are involved. I mean that includes, you know, the community, cause there will be public notices.

It will include, you know, all the county and city relators, you know, agencies that might have interest. It could include State Lands who may be a key factor. So yeah, I say that in terms of that most of the work will be in the close group of the BCT and the RAB.

CO-CHAIR HAYES: Yeah, State Lands I would think will definitely be a factor, this land is supposed to revert back to them. Or at least –

MS. MCFADDEN: Not the land.

CO-CHAIR HAYES: Yeah, including the, it will either --

MS. MCFADDEN: Yeah, the city, yeah, we transfer to the city in most cases, not the land, correct. Certainly the water will be.

CO-CHAIR HAYES: But the land will also be part of a swap?

MS. MCFADDEN: The boundary, yeah.

CO-CHAIR HAYES: So you'll still have to meet a level of acceptance for State Lands.

MS. MCFADDEN: Yeah. Certainly when I say BCT I mean that in the broad sense of, you know, the team that works, but also interested parties that are going to come into play with any long term decisions out here.

CO-CHAIR HAYES: Well, when we think of the BCT we think of the base, what is that cleanup team? Conversion team, closure team. All right.

MS. MCFADDEN: Chip team.

CO-CHAIR HAYES: All right. Okay. So two other questions or comments. One is, well a question is you had said something just now in response to Diana's question that I wasn't quite clear on. You said that you hope to have something complete, I wasn't sure what, two years out. And the reason that I'm at least interested, and I think the others of us also who serve on the Regional Park Task Force or regional preserve -- no, it's a not a regional preserve -- anyway, are interested in your numbers is because we're trying to track the potential for opening the park in phases depending on your cleanup schedule which we've seen or heard numbers as far out as 2011, 2014. So when you said complete two years out, I was just curious out, I am curious about what that means.

MS. MCFADDEN: That was my off the cuff, off the top of my head that I mean, and I think I said a couple of years because I mean it's basically, it's not immediate, it's down the road. I think at a minimum it would be two to three years. And it is going to depend on the priorities and the reuse and all the other factors that come into play. So I can certainly get you the more, the current SMP schedule would be where I'd go to to see when that is actually planned.

CO-CHAIR HAYES: And the final comment I'll make is that I would imagine that these buildings that are built on piers, they might have been built on virgin soil, and whatever items you found might just have been pitched under there, as you described it; but I also would think there would be a possibility that some of these were actually built on soil that might have already been filled in.

MS. MCFADDEN: Yeah, and that's what I was addressing Michael's question that that's one of the factors we're going to look at is because looking at the building date and when that land was filled is going to give us some idea as to what degree of concern we'll have in terms of the potential for MEC at each building.

CO-CHAIR HAYES: Yeah. I just was commenting on your comment that maybe people just threw stuff under there.

MS. MCFADDEN: Yeah.

CO-CHAIR HAYES: It could well be that -- but I didn't hear you say that.

MS. MCFADDEN: No.

CO-CHAIR HAYES: I was listening to hear the other factor which could have been that it was built on a previously, an area that had been a previous disposal site.

MS. MCFADDEN: Yeah, my apologies. It could be, we'll have to look at the land from both aspects, whether there was disposal from the surface or whether there was placement by either dredge fill or just dumping that occurred before the land was filled.

CO-CHAIR HAYES: And then the last thing that I'll comment on for, along with what Jerry said, I've seen, had the privilege of looking at an awful lot of the photos at the national archive and at the Vallejo Naval Museum, and I think it would be really instructive to have some of these

land and building date maps be overlaid in some way by GIS or something, over some of those aerial photos or site specific photos. They might offer some additional clues and be more interesting to us from the public.

MS. MCFADDEN: That's a great idea.

CO-CHAIR HAYES: Less cluttered than these topos.

MS. MCFADDEN: Yeah. We'll look at doing that as part of this conceptual site model because that's where it would be -- that's a really great idea, maybe get some transparencies over them. That will be great. Okay. Any other questions? Well thank you for your time and input, and do you want to dive right in or take a stretch break?

CO-CHAIR DUNAWAY: Let's see if we can get through the offshore a little bit quicker and ask some questions of John on that, where he's been very focused on this, we've had two meetings now this month on this topic with the regulators, so this stuff should be a breeze for John.

MR. BOWLES: Thank you, Jerry. Good evening, everyone, it's great to be back. I appreciate your weather, especially in contrast to what we have back east currently. This evening -- next slide, please. I'll also be giving you an overview and a briefer history given that Patricia has laid some of the groundwork literally for me. You may see some of the maps, but they will immediately precede that with some photographs that I want to share with you and basically refresh everyone.

I know that many of you took the opportunity to come out and visit during the RAB visit in 2003, and had other occasions to stop by our project site. And this will be a refresher. Next slide, please. We know that we've encountered World War II vintage munitions as well as those that date back to the Civil War. Many have been recovered in dredge spoils from Mare Island Strait. And as Patricia described to you the efforts that went on during the 1970s to 2000 period.

I want to reiterate that while MEC is a new term, there's also another new term called discarded military munitions to distinguish munitions such as those that have been recovered or encountered here at Mare Island as compared to UXO where you would encounter fire munitions on an operational range somewhere. The south shore for us in the offshore is about 85 acres of what we're describing as near shore and mud flat areas. We have gone ahead and divided it into areas A, B, and C. And the descriptions of where those areas are included there.

The production manufacturing area for us is an area of about 40 acres. And that, of course, is where, given the number of underwater obstacles and so forth, where our marine sensor system was damaged irrecoverably in October of 2003.

We'll also go ahead, as I said, with photographs and other information, share with you the nature of these physical environments. They're very challenging in terms of performing munition response action and remedial investigations. They include the wetlands, shoreline, mud flat areas. And when working in this environment, especially in the marine environment, you've got these additional physical challenges of winds, tidal variations, and currents, and don't underestimate the ferry wakes.

These are basically the areas of concern. The yellow area is the production and manufacturing area. And the lower area is the south shore area, and they're considered A, B, and C going left to right. There's another look. And you can see here some of the old piers that were used for ordnance handling in the World War II era. Next slide, please. As I said, the specific information that was obtained during the massive onshore investigation conducted in the late nineties of, essentially detected, investigated, removed all of the anomalies and got rid of tons of, literally of metal waste. For the most part they have some live and insert MEC items, a lot of small arms, and a lot of scrap metal. They also removed a great many utility lines. And again, all the recovered items were unfired and unarmed and, thus, to the UXO technician less hazardous.

The PMA results, Patricia has gone through these with you. Again, the areas are divided up for the onshore investigation into one hundred foot by one hundred foot grids, and in only six of those were ordnance items found. Next slide.

Here again are the south shore results, predominantly in these near shore areas. And take particular note because it will be relevant later in terms of what we're recommending for further investigation the locations of these three stars that highlight the live ordnance findings. Our conceptual site model has essentially pointed to mishandling or disposal along the piers and shoreline. There's been postulated some potential that the OBOD range in and around the area of IR-05 could have resulted in some kickoffs into the offshore near there, and we've surveyed that as well. And then there's some potential that munitions were simply disposed of in the near shore. Given that the MEC sources were on land and piers, we expect the potential for our survey and investigation of the survey results to reveal that most of the metal anomalies are located in this near shore environment.

A little bit of background. We began the geophysical survey of the offshore environment in 1999 by conducting a validation study of detection systems that existed then. We established a reference area and a prove-out area. The reference area had 16 munitions. And the contractors who were demonstrating their abilities to us at that point in time were given all the information they needed about those particular items so that they could calibrate their systems and then go into the area of study and see how well they could perform. Two contractors satisfied the requirements out of the five that participated. And one of those, Geophex, was selected for our geophysical survey in 2003. Next slide.

In terms of categorizing the environment for our purposes, we've come up with three categories. And they're all pretty self-explanatory. The near shore, the areas that we consider walkable without wearing boots. Mud flats, which are unwalkable and a great deal of fun. Those are where the mud flats are soupier, and I thought about including some pictures of that. And then you have the marine environment which is covered by water all the time. And here comes some maps and photos of this area. Here is the PMA. The green is the PMA near shore area where you can, where you can walk. And this is mostly a wetlands. Would you go back for one second?

MS. MCFADDEN: Sorry.

MR. BOWLES: Then you have the yellow area which is the mud flat up near building A-233 which is considered the IR-04, I guess. And then the blue is all the marine and those are the drawing of all the old piers. And on the south shore, again self-explanatory, green is near shore, yellow and mud flats exposed during low low tides, and then the blue area is the water. Here's some photographs. This is the wetland along the production manufacturing area. The photograph on the left is looking north and then turning and looking south. This is taken on a high tide. And I want to make sure everybody appreciates the range of tide in the strait. Next slide, please.

There you have it at low tide. And that erosion a channel that you have along the right is about six feet tall. And of course it extends into the wetland and it's a bit hazardous for walking. This is our now you see him, now you don't photograph. And we used stakes and other means to make sure that we highlighted those to each other. Here again is the mud flat along the PMA, just a thin strip really, and it's complicated with boulders and pier pilings and other underwater obstacles. The photo on the left shows the channel after the ferry has zoomed by, and on the right is a little bit further south where you have some riprap below building A-266.

It's also complicated by what we call culture. These were basically debris remnants that have been left behind, and it would be a great challenge to go in and remove all of these. There are a good many of them. These are out by building A-233 by that large tower. The next slide shows a typical view of the mud flat on the left covered by water, and then exposed on the right during the low, low tide. Same here with the, what we're calling the south shore area B. Many of you might remember what we call the, what Myrna affectionately referred to as plowing the field. This is a land based sensor system in a mud flat area.

Here's a marine sensor system. It's essentially three sensors ganged together behind a fourteen meter tow pole. And here are the results of the geophysical prove-out area. They were able to find 42 or 45 items. And honestly, one of the things that very pleasantly surprised us was the accuracy with which they located these items. Basically all were located within a half meter of where we knew them to be.

MS. MCFADDEN: And John, if I can just highlight here based on a question you had. This is a digital reading, and you can see there's a much greater amount of information there in terms of what the signal is than versus an analog reading that may just be a meter reading or an audible reading.

MR. BOWLES: Essentially you have a digital sensor married to a GIS system using GPS navigational techniques. And I believe they, in many cases measured using line tapes and so forth from buildings during the work there.

MR. KARR: Would you explain this? Is this a horizontal view, an overhead view? Is this showing vertical scale? Explain that to me.

MR. BOWLES: This is an overhead view. This area, this box is .86 acres. I'm not going to get deeper than I know I can tread in with regard to all of the geophysical technology that goes into this, but essentially what you have are 45 items in this test bed. Now this area, we didn't go in and perfectly clean this area, so some of the marks that you see, like here and here which are not

circled, we know them to be pieces of metal that were in this area, however for purposes of proving they're not items that we planned. And here you can see this is a 40 millimeter projectile that's buried at below one foot in the surface of the mud flat in a vertical orientation.

MR. KARR: This is an aerial representation looking down?

MR. BOWLES: This is a top view looking down of what the sensor recorded as data. They essentially -- yes, Chip?

MR. GRIBBLE: Can I try it?

MR. BOWLES: Yeah.

MR. GRIBBLE: This is a horizontal area, and you start with a, with an all white area basically, no reading. And your meter is set, by the way, the strength of the reading you set it for a color code. So a low reading is going to give you a blue, and a higher reading is going to give you a red, and everything in between.

So you walk over the whole area and you, in walking over your signal, your instrument generates a signal which is recorded, and then you, in this printout you get a color on the map. So you can see where you missed areas because you have no color. And if you did you'd see a strait or a strip that they walked or didn't walk, that's where they missed it. In this case you don't really see any of that, so it's pretty well covered, saturated with data. And the blue is where you have a low signal strength, which is interpreted in this case as no anomaly. And the lighter color which is, in a real print you'd see more green or red, it is a higher signal reading which suggests something. And then it's an interpretation where you draw the line for an anomaly.

MR. BOWLES: Thank you very much, Chip. And in this area up above you have what we call a reference area, 16 known items. And that is how they calibrate their system so that when they go into this area they can discern which signal to noise ratio should actually be selected as the target based on having had the answers for a similar context. Next slide, please.

In terms of focusing our investigation to learn more about these geophysical anomalies that we have selected as targets in these areas, we've looked essentially at what we know for sure. We know that there are metal anomalies that we detected in these AOCs. They may represent MEC items, they may just be metal debris, they could be small arms items. We think that some of the areas are more likely than others to have MEC due to the findings in the onshore environment and the uses of the areas in these environments, piers and so forth, used for ammunition, loading, and unloading. We have looked at the reasonably anticipated future land use which Patricia described. And in terms of what we can learn, well, can we precisely locate every MEC item that is in this environment? No, that's really not possible. But we cannot prove either that all of the anomalies are not MEC, that's simply not feasible.

So we're looking at where MEC is most likely to be suspected, and where is the exposure to that MEC based on the current, what we know about the future intended land use, to be the highest. So in focusing the remedial investigation toward remedial action decisions ultimately, we've prioritized areas where we have the high potential for MEC exposure and the high suspicion that MEC may exist at.

And in the near term what we want to do is investigate a sampling of these targets or anomalies and make sure that we get a good cross-section of all the potential targets out there, those that are large and those that are small. We have categorized or divided up all of these target anomalies into three groups. One is a small group of twenty to forty millimeter anomalies, which have a pretty low signal to noise ratio. And then 40 millimeter and larger targets. And then we have some anomalies that are actually significantly large in their signal to noise response, and we'll investigate those as well. We're calling those large mass anomalies. It's not always going to be a large mass, it's simply a location where we got a very high reading on our sensor system.

In the long term we may consider manually sampling some areas near the piers, either using divers or using clam shell dredge techniques, or somehow determine the best way to determine, ascertain what items are in these areas. These areas where the geophysical equipment is just not technologically advanced enough right now to survey without destroying itself. And then in the other areas where you saw all of the erosion, for example, that's just not amenable to being surveyed using these techniques, we may use the old hand held detector and go over it with the magnotometer, flag these items and then dig them. Our options in the, to fill the data gaps as to what these metal anomalies actually are is essentially challenged based on the type of environment we encounter them in.

So we're looking at the near shore area, which is basically the same as a land based excavation or intrusive investigation. Mud flat areas where we'll have to dig everything by hand. And given the very limited work hours available to us, probably about 141 we estimate will be available to us this summer during daylight and low, low tides where the mud flat is exposed. We'll go around and dig them by hand and record all the data as to what they were and their orientation. And then in the marine we're going to have to use divers to investigate. And we're going to focus on large mass anomalies initially. Given that there are no underwater GPS systems currently, we're going to refine our technique before we go after smaller anomalies, and we also want to learn more as to what the potential for them to be MEC would actually be before we make that kind of assessment.

And here again we're talking about some clam shell dredge of areas in the piers with manual screening of the material. These are the goals that we've established for our investigation. We need to define the extent of MEC concern sufficiently enough to make some remedial action decisions.

We're working closely with the advice of the state and federal regulating team on this as well as the water quality board. There are certainly some limitations right now to the technologies available to do this investigation. And one thing that we concerned ourselves with is, given the amount of time we have this summer regarding tidal windows, we could have either gone with a very broad brush and gotten a very low sampling of a larger area, or focused our efforts in one area and try to complete the investigation there; and that's the direction we're leaning in right now. So this summer we're intending to draft a work plan and deliver it in about two weeks that will focus an investigation in the south shore area B, that's the center section of the south shore. We're, in dividing the area up into the near shore, that walkable area, the mud flat and the marine, we're looking at a plan, and this is pretty much written in jello at this point, and we'll firm it up as we go within the work plan review process.

Essentially to investigate a hundred percent of the near shore anomalies in area B. And to establish three 100 foot areas that will tend to go east-west from the mean lower water mark to sea work. And in the first one hundred foot band, if you will, we'll look at 50 percent of the anomalies. And then in the next strip we'd look at 30 percent. And then last, or the third strip we would look at 20 percent. And bear in mind that because these are further from shore, the percentages are lower because the mud flat will just not be available to us in those locations near as much as it would be in the near shore. And we also expect there to be a gradient according to our conceptual site models where we would have more anomalies with a potential to be MEC in the near shore than all the way out and available in the mud flat where somebody would have had to expend a great deal of effort and taken some risk to get rid of things there. And then we'll be investigating all of the large mass anomalies that exist within that particular area.

And there's also a portion, if you remember that map with the three stars on it, there's a little bit of the western portion of area C where they encountered some items in the onshore investigation, and we'll add that to the scope of what we look at this summer as far as near shore anomalies are concerned. Again, we want to collect enough information to make some significant decisions about what actions are ultimately going to be required in those areas. We're also very eager to gain some insight about, we've seen all of these metal anomalies and people have thought about what might be out there and in the mud or below the surface for a number of years. We want to actually come back with some information about our findings.

And then we'll apply any lessons that we've learned to other remedial investigations and decisions in other areas. We may be able to extrapolate some of the commonalities in area B with areas C and A as well. There's also a significant amount of work to do to understand all of the dynamics that occur out there in that environment. You know, you have the Carquinez Strait, you have the Napa River flowing into the Mare Island Strait, you've got the tidal influences and then the influences or mitigation of influences by the dikes and the piers that exist out there.

And we want to make sure that during the summer we take the opportunity to learn as much as we can about those dynamics, what are the sedimentation and siltation rates in these various areas, you know.

We do a study, take the core sample, for example, of the mud flats themselves, and determine essentially how long a timeframe those areas have been experiencing that depositional accrual. So there's much more to learn with regards to the physics of what go on out there and what caused you folks to dredge for so many years. There again it's just a photo of the large mass anomalies that exist along the south shore. And then as an example of this decision-making discussion, these things will become firmer, as I said, in our review process for the remedial investigation work plan.

Essentially we're looking at a hundred percent investigation in the near shore area. How much of that data will we end up believing will contribute decision-making about areas A and C. In terms of the mud flat areas, if we don't locate any MEC items among the 50 percent of the metal anomalies we investigate in area B, can we make a determination that will support that no further action is necessary there?

We're going to be learning about that as we go. We'll also be considering some land use controls or deed restrictions that may also be necessary for some of these areas. And in the marine areas, if we don't locate any MEC items among the, what we're characterizing as large mass anomalies, just how much investigation do we need to do in the marine environment before we can determine that we know enough?

All right. I'm going to, I wanted to end this on a high note so I'm -- for your viewing pleasure the individual who was in the now you see him now you don't picture, a guy of Jerry's build, not quite the same as my build, walking in the mud flat along the PMA. I've also given him the advantage of wearing some mudders that I'm not wearing at this point. Which you can get a feel pretty quickly for how much fun it is to work in this mud. That's me in the lead. Notice how hard Jeff's, Jeff Sabol, my shipmate there in the back is laboring. This is a real balancing act coming up.

CO-CHAIR HAYES: Why were you doing this, John?

MR. BOWLES: We were wanting to demonstrate that we didn't think that there would be a great deal of recreational use out in this area, certainly not by me.

MS. MCFADDEN: What you don't see on camera is John collapsed on the grass.

MR. BOWLES: Yeah, the O-2 truck showed up.

CO-CHAIR HAYES: And that should be it.

MR. BOWLES: Diana.

MS. KREVSKY: I'm just wondering, you talked about improvement of technology and you are proposing to have divers examine some of the larger anomalies. And I remember years ago when they were, they had that problem that there was zero visibility and they kind of did away with that idea. So I'm surprised to see this again that you've improved the technology with divers.

MR. BOWLES: We haven't.

MS. KREVSKY: You haven't?

MR. BOWLES: No, that's why we're going only after large mass anomalies with the drivers. We'll have a hand held indicator, we'll have the benefit of GPS so that on the surface we can navigate precisely where that item's located given the benefit of our digital technology. We'll put a non-metallic anchor in place. And you're basically looking at about ten feet of water if we go out on the low, low tide. If we did it during a low, low tide you might even be able to stand on tiptoes.

But essentially our expectation is that we will be able to, with a hand held detector, easily reacquire these anomalies and identify what they are. And then through this process learn more about just how difficult it would be and what the challenge would be in trying to evaluate smaller anomalies using the same methodology.

MS. MCFADDEN: And just to clarify, the divers are only going to be used for the large mass anomalies in the marine area. In the mud flat and in the near shore we'll do it with other technologies. But right now what we want to answer is there some large cache out there that might be of some concern. We honestly expect it to be large debris or small piers or boats that have sunk.

MR. BOWLES: Any other questions?

CO-CHAIR HAYES: I have a couple of questions or comments. First of all, somewhere along the line in your conversation, and I shouldn't really be too hard on you since I think you've been in an airplane a long, long time in the last few days. But you said that we want to learn more, I think, about why we dredged. Well I think those of us who've hung out around here long enough know why we dredged.

MR. BOWLES: That's not what I said.

CO-CHAIR HAYES: That's not what you said? That's what I wrote down.

MR. BOWLES: No, we wanted to do a scientific analysis of what the sedimentation and siltation rates are now so that we have an understanding of, we know that dredging was required and we know why. But in terms of what we can expect an equilibrium situation to be without future dredging and so forth, we're using a consultant to assist us in that analysis.

CO-CHAIR HAYES: So you're using like a geomorphologist or something like that? Because I don't think that that's been done here by, I'm not sure, but I haven't heard of it being used in this analysis. And the fact is that the Napa River is the highest schully rate, or the highest sedimentation rate, probably in all of California, and it is depositing clay materials that are pretty stationary, as you've described in certain areas in your mud flats where you don't have things that you planted moving. But --

MR. BOWLES: There are a lot of things that are well known and understood intuitively from everyone's experience here. But in terms of stating them scientifically as a part of the record about, and including them in the rationale as to why we're making some of the recommendations or ultimately decisions that we're having to consider for the offshore, we're using an employee of Sea Engineering, Incorporated who has already done some analysis of core engineer data and other such things.

CO-CHAIR HAYES: So you're not using a local geomorphologist? I mean I would highly recommend that, because this is such a unique water body with unique schulling patterns, that you definitely contact some of the local experts on this. I mean I'm not talking about a non-scientific behavior, I'm actually talking about a scientific behavior. And that would be going to people who are pretty knowledgeable of some of the patterns of this particular water bodies activities.

But to get to the point of this conversation, we know why the Navy dredged, and we can go back and scientifically look at when they dredged and where they dredged, how frequently and how much, and for what purpose.

But I think that one of the biggest challenges that you face right now is permanent reuse, which seems to be somewhat of a moving target, and then interim use. And, you know, your demonstration just now was great. I wish that your walk across the water like you attempted to do there could have been used at our very first meeting of the Mare Island Regional Park Task Force, because when I said that one of the things we could do right off at the task force meeting was to narrow down the likely uses of the regional park offshore, or shoreline area and actually offshore, and we could rule out almost immediately some activities like skin diving, I was just considered a heretic for not playing by the rules which was everything's on the table.

And I was pretty much shot down by a leading member of the community at that time for saying something so outrageous and so offensive to the process. And it would have been nice to have your demonstration there. But it really brings to mind that we are trying to accomplish this goal not to sift through every single grain of clay on Mare Island and make it safe for every type of use. And so I'm interested to know what is driving your planned investigations this summer? And you know, a really good example is one company who wants to move some nesting sites, and they're trying to get these nesting sites to be as close to the river as they can. And so they're thinking about marsh areas and, you know, that's a good reuse, a good example of do you disturb the marsh at all, do you leave it like it is? Another case that I know of where the ferry is expecting to put some new landings and do some new piling drivings on the island side of the river. They do it all the time on the Vallejo side. They do routine maintenance dredging on the Vallejo side. Who is talking with them about what their depths are, what their needs are? And, you know, who, how is their plan for reuse driving, you know, what you're investigating on this offshore and near shore area? Another example is the fact that the Historic Park Foundation has its heart set on bringing in the U.S.S. Drumm, that's the submarine, and they want to relocate it in dry dock number one. Well, what's the level, is there a way that you can demonstrate that all this new sediment isn't going to cause any kind of risk when they go to dredge and how deeply they dredge and, you know, when they try to open that dry dock back up. So I'm trying to figure out what's driving your plans for investigation at this particular site this summer?

MS. MCFADDEN: There's really just a lot of practical things driving it, there's nothing specific. One is we got the geophysical data and we want to go out as thoroughly as possible to look at that, because there was a question raised by the BCT about potential changes of location or sedimentation levels based on tidal influences. So we wanted to be able to investigate the data we collected as soon as possible. Part of it is that we have the funding for it, so that's, you know, one motivation is that we have some of the funding for it. We don't have money to do all the areas, but we do have some of the money for sampling. Some of the early discussions, and this doesn't feed that much into it, but the questions of the offshore always come up. And, you know, this would be the first time we actually go out and try and answer the question of just how many of these metal anomalies are munitions? So there's not one specific thing but it's kind of a handful of things that are feeding it. And just knowing that we have to keep these sites progressing if we do want to make them available for other uses. Because until we start answering some of these questions we're not going to be any closer to getting to these decisions. Or even decisions for interim uses if that's an option that's raised. So does that answer your question, Myrna, sufficiently?

CO-CHAIR HAYES: Sort of scientifically, sort of politically, sort of we have money burning a hole in our pocket.

CO-CHAIR DUNAWAY: I think one thing that hasn't been said, Myrna, is that when the concept for doing the anomaly investigation and the offshore survey work was done, our plan has always been to go back out there and investigate the identified anomalies through some type of intrusive investigation. The components of the investigation we're talking about tonight to look at sedimentation rates, effects of hydrodynamics, that actually came from input from Chip at our meeting earlier this month, and so we've tailored our investigation for this year to go beyond what we were originally planning two years ago, to add that component of the investigation to better define what kind of environment we have out there. So it's essentially something we have to do.

We've identified these as munitions sites, you have that in your RAB orientation workbook, it's in our SMP. Everybody knows that the Navy knows we have a site out there. We need to finish the investigation so that we can do the things that we need to do for this BRAC site, and that is to transfer the property. We can't transfer the property until we finish the investigations and the necessary cleanups. That's the simple way of saying it. Are there any other questions?

CO-CHAIR HAYES: You can assure us that you will learn something significant here that can be applied up and down the rivers?

CO-CHAIR DUNAWAY: Well we are actually in the forefront of doing underwater munitions work here at Mare Island. And yeah, not only up and down the rivers, but all around the country and around the world we can apply this.

CO-CHAIR HAYES: Well Havalave is going to be a very different medium than our river's clay and mud, so you can't even find an anomaly all that deep in our mud, so you're going to get some extra ferry wash to help you there or --

CO-CHAIR DUNAWAY: Of course we can use the data here for sites that have similar site conditions.

CO-CHAIR HAYES: But you can only go, what, one foot, two foot? I mean, what are you going to learn from this?

MS. MCFADDEN: I think we can learn a lot. I think certainly by doing a gradient effect and looking at what we expect the source to be and then stepping out, I think we're going to learn is there MEC out there at all? I mean, do we find it in the places where we expect to find it? Is what we find consistent with our conceptual site model? You know, what items do we find out there, and how does that impact what we expect to find in other areas on Mare Island?

You know, I think by answering some of these sedimentation questions it's going to help answer the munitions questions, but it will also feed into the chemical issues in the sediment that are still being addressed. You know, but if, we've got to answer these questions at some point. If we, we're not going to get to some kind of record of decision by just guessing that there's MEC out there but not knowing extent or concentration or location or type. And so this is our, this is our, we're going to propose an approach and a work plan and make it available for comment. And, you know, we're looking for an approach that's going to help answer everybody's question. Chip?

MR. GRIBBLE: We talked about, we talked today with the Navy about a number of these issues that you raised and others. And so my understanding is that they're going to, they're preparing a work plan -- workplan? -- which addresses these and it's supposed to be coming to us in –

MS. MCFADDEN: Mid-April.

MR. GRIBBLE: -- mid-April. So I think that's the document to look at to see, to see how well some of these things are going to be addressed.

MS. MCFADDEN: And just to clarify, Chip. A lot of the sedimentation history and that kind of thing, that will probably be in the conceptual site model. We'll only have some sediment sampling or some of those column things that we discussed in this work plan.

MR. GRIBBLE: And we're also asking for them to clarify the purpose of the, of this investigation, you know, what, be more clear as to what we're looking to get out of it so we, so there's a point to it as opposed to kind of going aimlessly. Not to say that that it is aimless, but I think if we work, the more clear and understanding we have as to why we're going out there, the better off that we'll be.

CO-CHAIR DUNAWAY: We've gone pretty far into this conversation, and the whole idea of this is so that we can hear back. If you guys think we're totally off ase and we should throw this plan out the door, tell us that. But tell us what you think should be the way to go. We need to make progress out here. This is our best proposal to do that. So the work plan is going out. You guys will see a copy of that in the RAB library. And this presentation was basically to warm you up to that work plan.

CO-CHAIR HAYES: What about a subcommittee meeting?

CO-CHAIR DUNAWAY: Yeah, and a subcommittee meeting, if necessary, can be put together and discuss about, discuss the process of this work plan. So with that, I want to end the presentation. Thank you, John. Thank you, Patricia. And before we go on a break we have a, kind of a special acknowledgment to make here tonight. And if Wally can grab the lights for us. Diana, would you step up here for a minute?

III. ADMINISTRATIVE BUSINESS (Myrna Hayes, Jerry Dunaway)

CO-CHAIR DUNAWAY: You all remember at the January RAB meeting we heard some bad news from Diana, she said she had to resign from the RAB, and so this is going to be her last evening here. We have put together something to recognize her efforts here. And let me just read that to you, and Myrna will help me read the other part of it too.

"This certificate of appreciation is presented to Ms. Diana Krevsky in recognition of your voluntary service in the conversion of Mare Island Naval Shipyard following closure in 1996. You have served as a dedicated and contributing member of the Mare Island Restoration Advisory Board, and you have contributed through extensive community involvement in the planning of public spaces at and in the cultural enrichment of Mare Island, highlighting its long and distinguished history. In recognition of your service, the City of Vallejo, Lennar Mare Island, and Weston Solutions share in acknowledging your contributions, and will dedicate a

rehabilitation project of the spirit ship sculpture of which you were the project manager of and responsible for getting that into place, as a token of their appreciation. And the U.S. Navy truly thanks you for your community service to Mare Island and to the Vallejo community above and beyond the call of duty."

It's signed by Kimberly Kessler, our director at the BRAC program management office.

(APPLAUSE.)

CO-CHAIR HAYES: And there was a slot here in this very nice folder, suitable for display in your new home for another letter that was from the RAB. And we doubt that this is the current RAB letterhead. One of the contributions that Diana made was to be constantly changing the RAB letterhead on her computer and then getting it to us. But at least you're listed on there still, so it's already old letterhead. But we've just written from the RAB itself.

"Dear Diana: We are saddened to have received your letter of resignation from the Restoration Advisory Board, but understand that you are making changes that are important for your personal goals. And we also forward this certificate of appreciation with great pleasure. On behalf of all the members of the RAB and as representatives of the U.S. Navy we take this opportunity to acknowledge your service as the chairperson of the community outreach focus group since you joined the RAB. And in that capacity you consistently demonstrated leadership and superior dedication to ensuring that public information about Mare Island was clearly communicated to the community through your editing, design, and production of the RAB newsletters, and continuous review and refinement of environmental cleanup fact sheets regularly distributed to the public. You have honorably represented the RAB at the 2004 Chief of Naval Operations RAB Conference and RAB caucuses held for national regional RABs and technical review committees. You've provided valuable contributions to the early transfers at Mare Island, including service on the anomaly definition review board for the development of a munitions cleanup strategy that was approved by the regulators for the western early transfer parcel."

"As a result of your participation on the RAB, you were selected to serve on the Regional Park Task Force by the Vallejo City Council. And prior to joining the RAB you served on the Arts Subcommittee for the Mare Island Reuse Plan. Altogether, a job well done. Please accept our standing invitation to attend any of our future RAB events so that you may see how your work has contributed to the reshaping of Mare Island. The RAB members and the U.S. Navy all wish you the best of success in your future projects and adventures. Fair winds and following seas, Diana."

MS. KREVSKY: Thank you.

CO-CHAIR DUNAWAY: We have a cake that we brought tonight for Diana, and after taking a picture next to the Mare Island photo over there, we'll break into it.

MS. KREVSKY: Well, first of all, I'm speechless, and my first impression is to say, "Did I do all that?" And it seems that I probably needed to edit down Myrna's --

CO-CHAIR HAYES: He edited it.

MS. KREVSKY: No, but thank you, I really appreciate it. And I hope to still be part of what's happening and attend some RAB meetings. So thanks very much. I will try.

(APPLAUSE.)

CO-CHAIR DUNAWAY: So help yourself back there, we're going to take a picture real quick. Also, for those of you who weren't available to make the CDC demonstration of the contained detonation chamber, we have slides on that black portfolio up there.

(Thereupon there was a brief recess.)

CO-CHAIR DUNAWAY: While you all are eating cake I'd like to talk to you about a few points that are important tonight. We're not going to hold the rest of the meeting tonight, but I just want to make a few points if I could get your attention, please. Can I get your attention, please? I'd like to wrap up the meeting with a few points. One of 'em is Carolyn D'Almeida just had her purse taken from her outside the library, so please be careful when you're leaving tonight. She had her purse snatched when she went out into the parking lot.

UNIDENTIFIED SPEAKER: Who did?

CO-CHAIR DUNAWAY: Carolyn, just now. So please be careful when you're leaving the library tonight.

UNIDENTIFIED SPEAKER: Did she call the police?

(Thereupon occurred simultaneous discussion.)

CO-CHAIR DUNAWAY: She's calling the police right now on her cell phone. But just a couple of things for the meeting. We're not going to go through the rest of the reports.

For the May and the June meetings, we may be pushing those dates out a week because both the end of May and the end of June fall on the Memorial Day holiday as well as the Fourth of July weekend, so we may move those meeting dates. And also for the Navy's report, Weston's report and Lennar's report, please just pick up a copy and read, go ahead and read through those. Cris does have something important he wants to mention, so let me give him an opportunity to do that.

MR. JESPERSEN: The only thing I wanted to touch on was in our handout. Back in 2002, as part of the western early transfer parcel we put together a remedial action plan slash ROD for investigation area AI. And as part of the requirements for that RAP/ROD, we had a requirement to put two feet of additional cover on the eastern outboard levees of the dredge ponds. So that's just to make sure there's extremely minimal exposure to the public if there are any additional ordnance items out there. And we've decided we want to try to start on that here sometime in the next sixty days or so. Our thought would be that if Lennar starts selling their homes and we would have people there that are going to be inconvenienced by the noise and heavy equipment and dust, so we're going to get moving forward with that hopefully by June.

CO-CHAIR DUNAWAY: Okay. Great. Thanks, Cris. And that will put an end to our formal part of the meeting. Enjoy the cake.

(Thereupon the foregoing was concluded at 9:00.)

LIST OF HANDOUTS

The following handouts were provided during the RAB meeting:

- Presentation Handout – MINS Offshore Geophysical Survey Results and Continuing Investigation (Patricia McFadden, Navy and John Bowles, ECC)
- Weston Solutions Mare Island RAB Update March 2005
- Lennar Mare Island Mare Island RAB Update March 2005
- Navy Monthly Progress Report Former Mare Island Naval Shipyard March 2005

MINS Offshore Geophysical Survey Results and Continuing Investigation

MINS Restoration Advisory Board Meeting
March 31, 2005

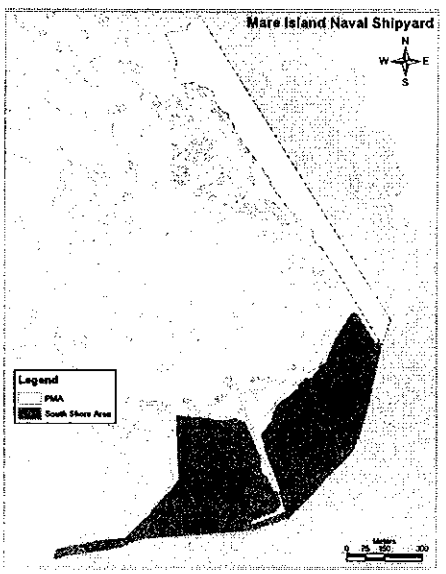
Presentation Outline

- Overview of Offshore Sites and MEC History
- Photos of Physical Environment
- Geophysical Technical Section
- Data Gaps
- Remedial Investigation Outline
- Recommendations

Offshore Areas of Concern (AOCs)

- MEC encountered in post WWII dredge spoils from MI Strait and during onshore intrusive investigations conducted 1997 - 2000
  - MEC concerns limited to Discarded Military Munitions rather than UXO
- South Shore Area (SSA) 85 acres
  - Area SSA-A: Dike 12 to Pier 35
  - Area SSA-B: Pier 35 to Dike 14
  - Area SSA-C: Dike 14 to Pier 34
- Production Manufacturing Area (PMA) 40 acres
- Physical Environments
  - Wetlands, shoreline, mudflat areas and water (see later photos)
  - Winds, tidal variations, and currents are considerable

Offshore AOCs



Old Piers used for Ordnance Handling

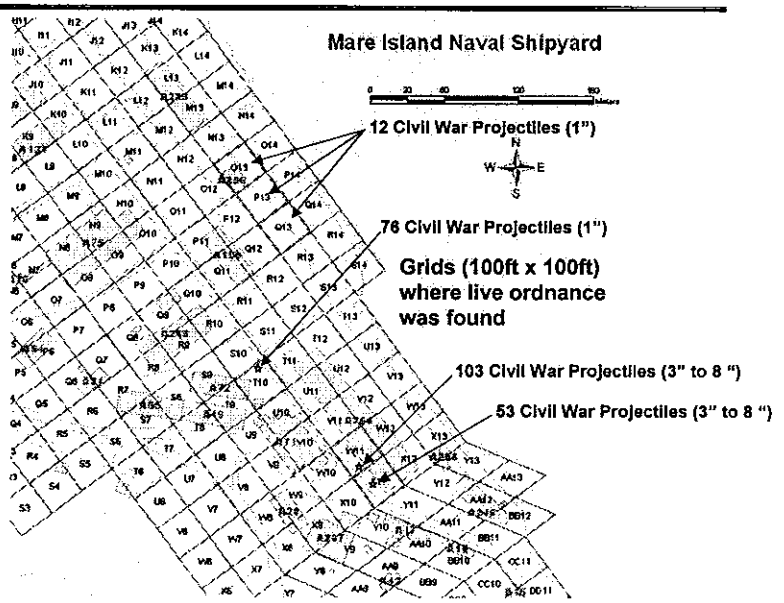
"Onshore" Intrusive Investigation

- PMA investigated 1998 – 2000
- SSA investigated 1997 – 1999
- All detected anomalies were investigated and removed or treated as non-hazardous metal waste.
  - Anomalies included:
    - Live and inert MEC items
    - Small arms
    - Non-hazardous scrap metal
    - Utility lines not in use
  - All recovered MEC items were unfired and unarmed.

PMA Results

- 232 live MEC items in buried caches near Bldg A-266
- 12 MEC items located near Bldgs A-159 and A-256 (approximately 250 feet from A-266)
- All live items were located within 6 grids measuring 100 x 100 feet
- Other than small arms and 17 propellant grains, no other live munitions were located in the PMA

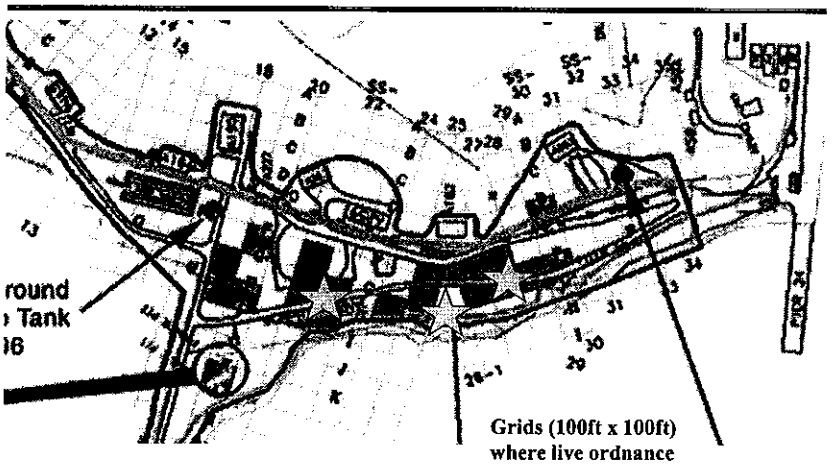
Locations of explosive MEC within PMA



SSA Results

- South Shore – Dike 12 to Pier 35 (SSA-A)
  - No MEC
- South Shore – Pier 35 to Dike 14 (SSA-B)
  - 20 MEC Items (2 40mm, 3 1.1in, 11 20mm, 4 flares)
  - 5,000 lbs recovered during 1989 emergent response at Dike 14
- South Shore – Dike 14 to Pier 34 (SSA-C)
  - 236 MEC Items (153 fuzes, 74 primers, 6 civil war projectiles)
- Most MEC items were located within 6 grids measuring 100 x 100 feet
- Other than small arms and propellant grains, no other live munitions were located in the South Shore

Locations of explosive MEC within SSA



MEC Sources in Offshore Sites

- Conceptual Site Model
  - Mishandling or disposal along piers and shoreline
  - Potential "kick-outs" from OB/OD activities near IR-05
  - Potential for near shore disposal area
    - Items found on two beach areas in PMA and South Shore
- Since MEC sources were on the land and piers we expect MEC potential to be greater in the near shore than further from shore

Offshore Geophysical Surveys

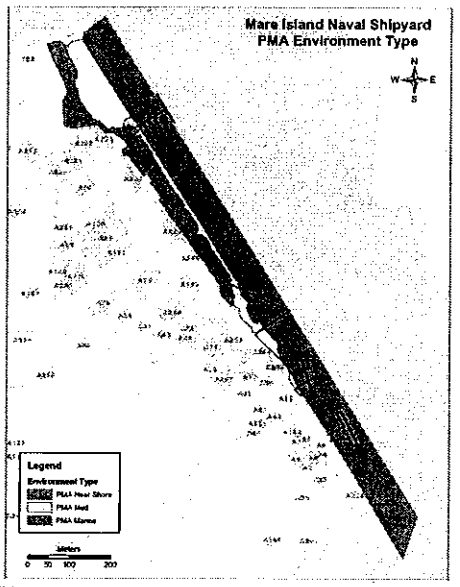
- Survey Approach
  - Validation of Detection Systems (VDS) Study – 1999
    - Established Reference and Geophysical Prove-Out Areas
    - Assessed Available Technology and Performance
  - Offshore Geophysical survey operations – 2003
    - Conducted survey in 2003 with continued survey to fill data gaps in Spring 2004
    - Establish an investigation methodology based on the geophysical survey data and site history.

AOCs Subdivided by Environment

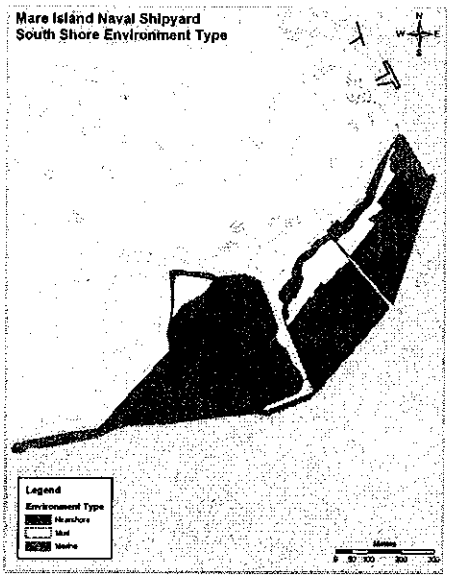
- **Nearshore**
  - **"Walkable"** - sandy and grassy areas along shoreline (includes wetlands)
  - Areas above Mean Lower Low Water (MLLW)
- **Mudflat**
  - **"Unwalkable"** - mud exposed below MLLW
  - Mudflats more unsafe or "soupier" farther from shoreline
  - Areas only exposed during low tides
- **Marine**
  - Areas always covered by water

Note: See following maps and photos which illustrate AOCs and their environments

PMA AOC Subdivided by Environment

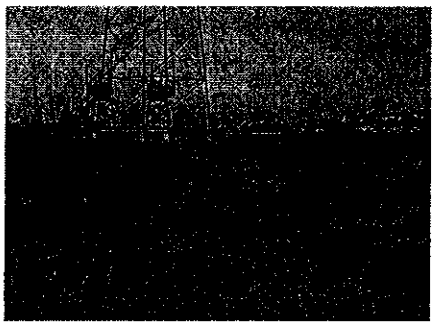


SSA AOCs Subdivided by Environment



Photos Follow

PMA Nearshore (High Tide)



PMA near Bldg. A224 - north toward Berth 24

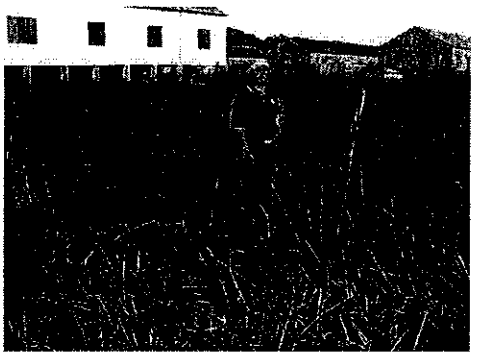
PMA near Bldg. A224 - south toward Carquinez Strait

PMA Nearshore (Low Tide)

PMA near Bldg. A224 – shoreline erosion

PMA near Bldg. A224 – erosion channel

PMA Nearshore (Erosion)

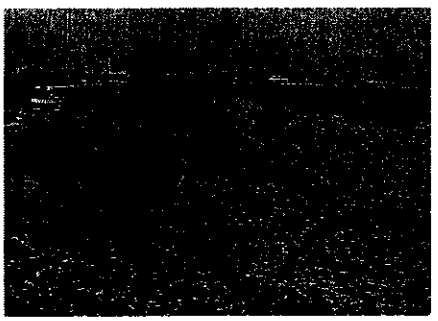


Example of erosion channel obscured on surface by vegetation

PMA Mudflat

Examples of unsurveyable bottom and underwater obstacles

PMA Marine



Ferry Wake indicates water depth and riprap at south end of PMA

PMA Features

Examples of old pier pilings or wetland walkway remains which limit survey area

South Shore Marine & Mudflat (SSA-C)

Typical view with mudflat covered by water

Nearshore area which is small and primarily riprap

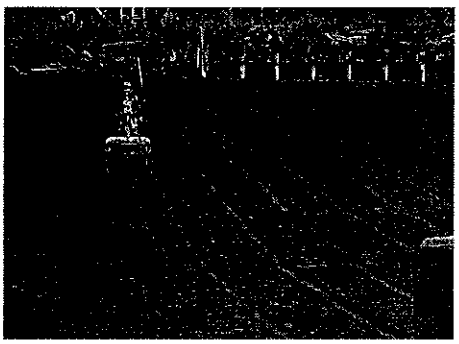
Nearshore & Mudflat (SSA-B)

Dike 14 nearshore and mudflat

Nearshore area and mudflat west toward Pier 35

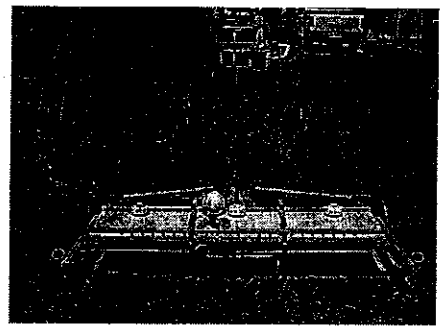
Geophex Land-based System (Used on Nearshore and Mudflats)

Configuration of Geophex land-based system

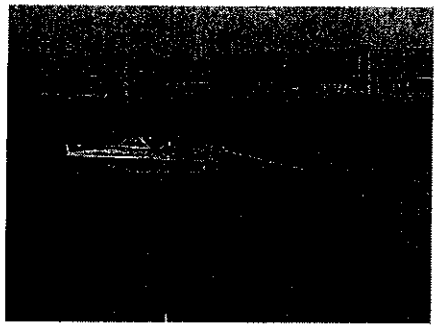


Operating the land-based system

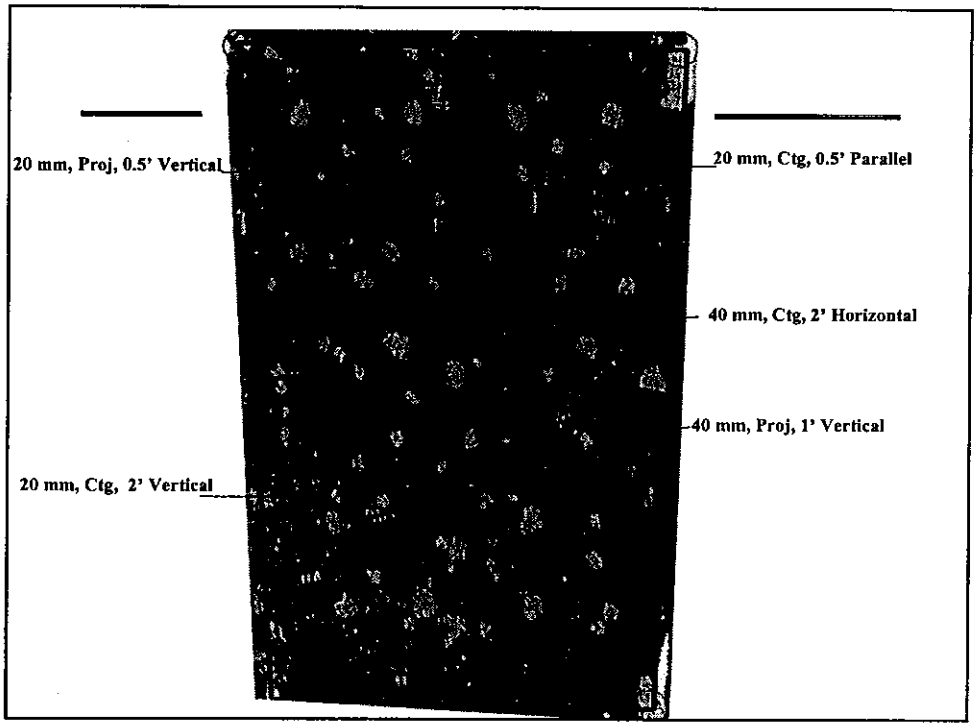
Geophex Marine System



Configuration of Geophex marine system



Operating the marine system (14m tow pole)



Remedial Investigation Discussion

- What we know:
  - Metal anomalies detected in offshore AOCs
    - May represent MEC, small arms, or metal debris
    - Some areas more likely to have MEC due to past findings and history
  - Current reasonably anticipated future land use:
    - PMA: Commercial or light industrial
    - SSA: Regional park
- What we need to learn.
  - Precise location of all MEC?.....Not Possible
  - That all anomalies are not MEC?.....Not Feasible
  - Where MEC is most likely to be?.....Possible and Feasible
  - Where exposure to MEC is the greatest?...Possible and Feasible

Remedial Investigation Discussion (cont)

- How can we focus the RI toward remedial action decisions?
  - Prioritize areas based on higher potential for MEC exposure
    - Clean up will lead to biggest risk reduction
  - Near-Term: Investigate sample of "targets" anomalies
    - 20-mm to 40-mm, 40-mm and larger, and "large mass anomalies"
  - Long-Term: Evaluate near-term results and consider alternative data collection methods for unsurveyable areas
    - Manually sample areas near piers (divers or clam shell samples)
    - Use handheld detector in erosion areas (Mag, Flag, and Dig)

Remedial Investigation Options

Goal is to fill data gaps to make remedial action decisions, but offshore areas have conditions that limit investigation options

- Nearshore
  - Similar to land-based options
  - Reacquire anomalies and excavate by hand and mechanical means
  - Record findings using database management
- Mudflats
  - Reacquire anomalies and dig by hand
    - Heavy equipment not an option
  - Limited available work hours during low low tides (est. 141 hours)
- Marine
  - Divers to investigate large mass anomalies
    - Challenge – No Underwater GPS (can't reacquire smaller anomalies)
    - Intention is remove MEC, but not debris unless safety or health hazard
  - Take clamshell dredge samples with manual screening of material
    - Applies to areas with higher MEC potential (piers) due to costs and mechanical limitations

Remedial Investigation Options (cont)

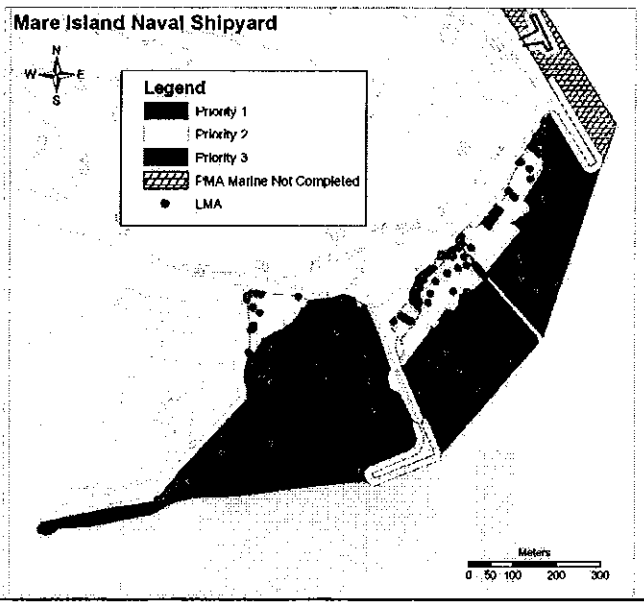
For any Remedial Investigation, the following goals need to be achieved:

- Investigation needs to define the extent of MEC concern sufficient to make remedial action decisions
- There are limitations to available technologies to investigate, just as there are to remediate
- If we focus on one area, we need to be able to apply that approach through the other areas
- Priorities should be established for AOCs based on potential for human exposures to MEC

Recommended RI Approach - 2005

- Focused Investigation at SSA-B
  - Investigate 100% of Nearshore Anomalies (886)
  - Establish 3 100 ft buffer areas beginning at MLLW:
    - Investigate 50% of Mudflat Anomalies (XXX) in BA-1
    - Investigate 30% of Mudflat Anomalies (XXX) in BA-2
    - Investigate 20% of Mudflat Anomalies (XXX) in BA-3
  - Investigate 100% of all LMAs (49)
    - Includes marine LMAs
- Additional Investigation at SSA-C (427)
  - Investigate 100% of Nearshore Anomalies near Dike 14
- Goals:
  - Collect enough info to make remedial action decision for SSA-B
  - Gain insight into MEC concentration and distribution
  - Apply lessons learned to remedial decisions in other areas
  - Establish a level of effort and costs for the investigation
  - Further analyze potential issues regarding sedimentation & siltation in areas around MI

Large Mass Anomalies in SSA-B



Decision Making Discussion

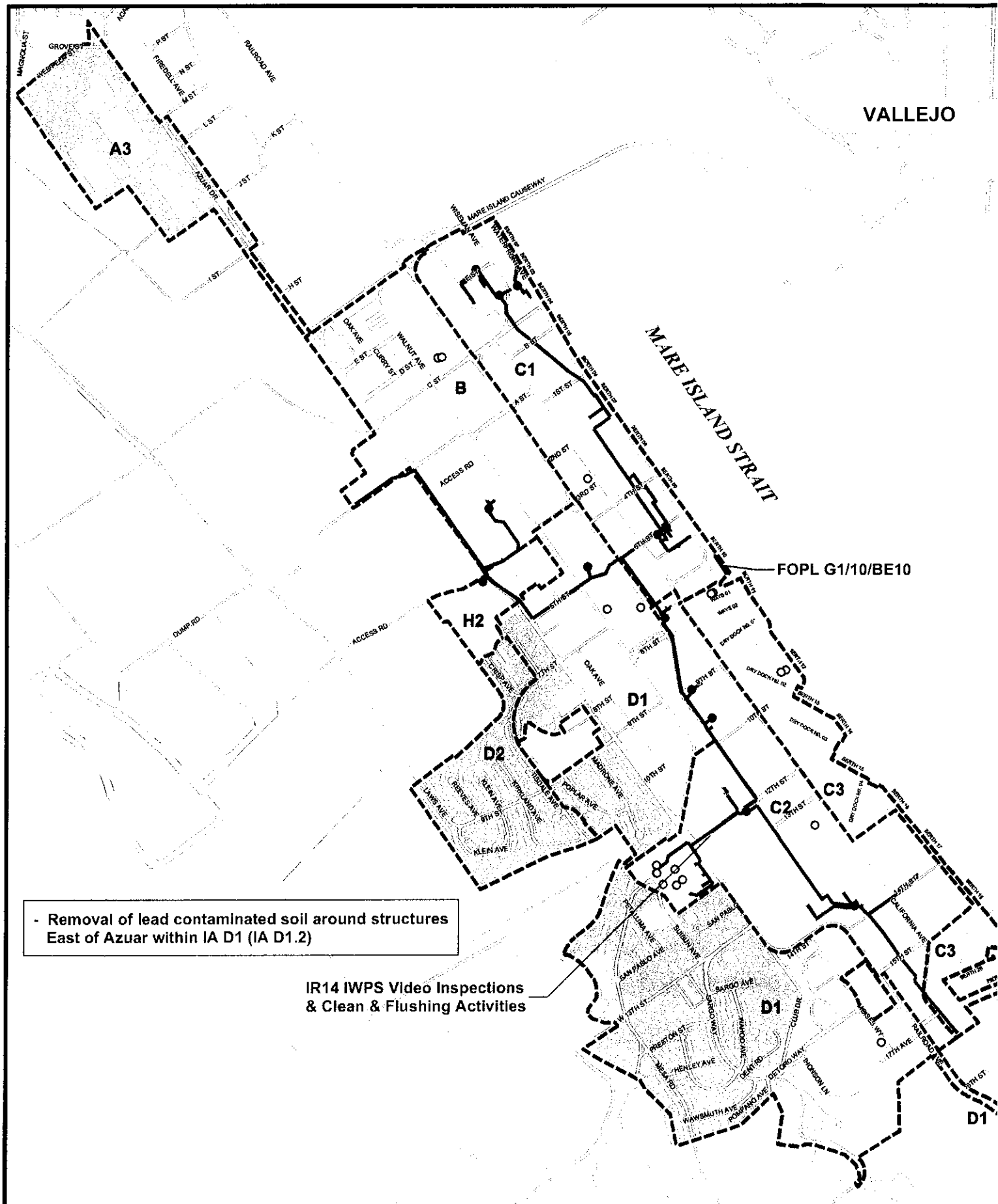
- Need to have a decision process for what the investigation results will mean for the site
- For Nearshore Areas
  - 100% investigation is essentially a remedial action
  - Information collected in nearshore is critical to measure potential for MEC in the offshore.
- For Mudflat Areas
  - If no MEC located in 50% (BA-1).....No Further Action Proposed
    - Assumes that some level of education and land use controls may be in place for entire area
  - If a few MEC located in 30% (BA-2).....?????? (To discuss w/ BCT)
  - If several MEC located in 30% (BA-3).....????? (To discuss w/ BCT)
- For Marine Areas
  - If no MEC located in Large Anomalies.....No Further Action Proposed
    - Assumes that some level of education and land use controls may be in place for entire areas

Questions?

- POC Information:
  - Patricia McFadden, Navy

    (415) 743-4720
  - John Bowles, ECC

    (757) 496-5623



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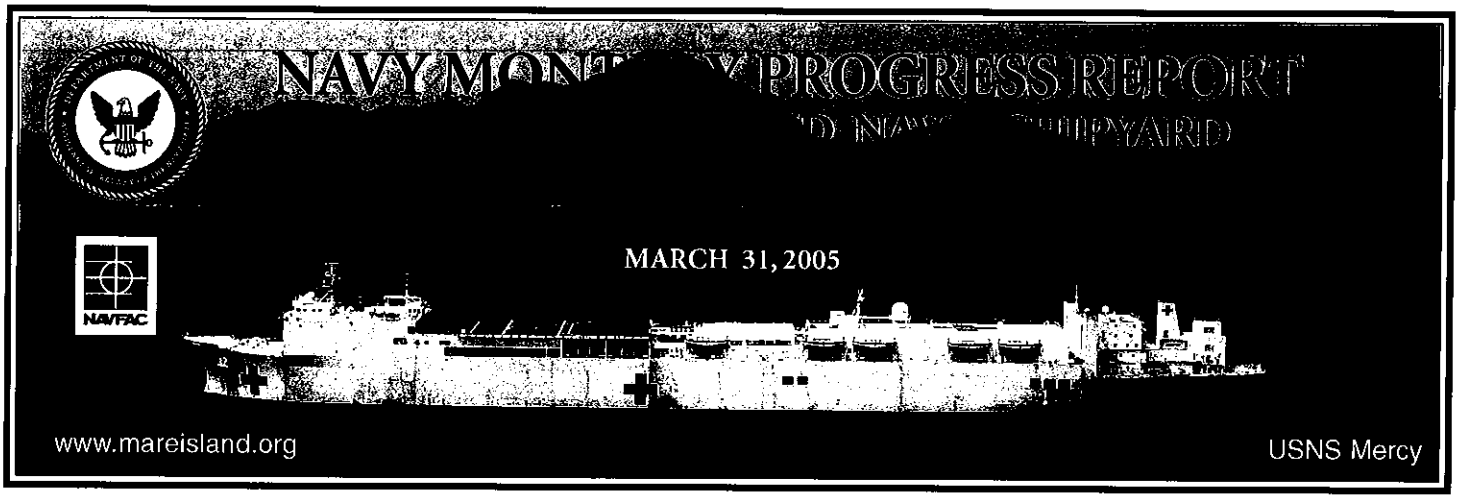


1.0 INTRODUCTION

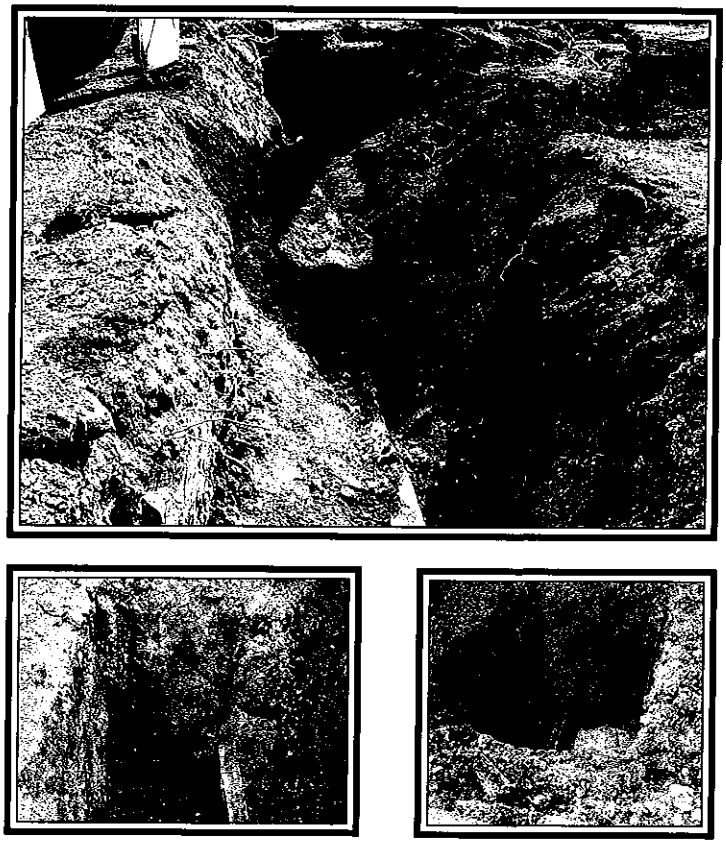
The U.S. Department of the Navy (Navy) prepared this monthly progress report (MPR) to discuss progress and issues in relation to the environmental cleanup of the former Mare Island Naval Shipyard in Vallejo, California. This MPR does not discuss cleanup work performed by the City of Vallejo and its developers, Lennar Mare Island and Weston Solutions, through the Navy's Environmental Services Cooperative Agreements. The work completed under those agreements is reported separately by each respective party. This MPR discusses progress made during the reporting period from March 4, 2005 through March 31, 2005. The information provided below includes updates to field work and removal actions; document submittals; and the progress of regulatory reviews, issues associated with Navy environmental programs, and Remedial Project Manager (RPM) and Restoration Advisory Board (RAB) meetings.

2.0 FIELD WORK AND REMOVAL ACTIONS

To address regulatory closure of facilities subject to the Navy's hazardous waste facility permit for Mare Island, the Navy is completing cleanup and investigation work of the former industrial wastewater pipeline in the southerly portion of Mare Island. This section of the pipeline crosses the Army Reserve parcel and terminates at Investigation Area F2 in the former painting and sandblasting area. The Navy shut down this portion of the pipeline several years before closure of the shipyard and is following up with that work to meet regulatory closure requirements. The pipeline is being flushed to remove any residual wastewater that may still be in the pipe, and the Navy is evaluating the integrity of the pipe to determine if leaks may have occurred.

The pictures to the right show the pipeline after excavations exposed them, and sandblast abrasive material can be observed in some of the trenches. This sandblast abrasive material is often called greensand because it contains nickel material that makes it appear green in color. This work and the condition of the pipeline will be documented in a report later this year.

All other sections of the former industrial wastewater pipeline are undergoing similar closure activities through the Environmental Services Cooperative Agreements the Navy put in place for both the Eastern Early Transfer Parcel (work performed by Lennar) and Investigation Area H1 (work performed by Weston). The Navy's work was modeled off of and uses the same contractor as Lennar's work due to the similarities of this pipeline segment.



The photographs show the former industrial wastewater pipeline. The green-colored material is sandblast grit referred to as greensand.

3.0 DOCUMENT SUBMITTALS AND PROGRESS OF REGULATORY REVIEW

The Navy submitted one document to the regulatory agencies during the March reporting period. That document was the *CERCLA Response Action and Request for Initiation of Formal Consultation*. The Navy received 3 comments from the regulatory agencies during the March reporting period. The Department of Toxic Substances Control (DTSC) and the Environmental Protection Agency (EPA) submitted comments on the *Draft Sampling and Analysis Plan Addendum, Additional Characterization at Former Degreasing Plant Investigation Area C2*. In addition, the EPA also commented on the *Responses to EPA Comments on the Draft Remedial Investigation for Investigation Area F2*.

Year-To-Date Progress

The documents presented in the table below include only documents that address sites where the Navy remains responsible for the completion of cleanup work.

Number of Documents Submitted by the Navy in 2005	9
Number of **DTSC** Comments Received by the Navy in 2005	4
Number of **EPA** Comments Received by the Navy in 2005	3
Number of **Water Board** Comments Received by the Navy in 2005	2

4.0 POTENTIAL EARLY TRANSFER PARCELS

Early Transfer of Property at Mare Island

Weston:	Remainder of Regional Park (Parcel VII-B)
Lennar:	Reuse Area 1 (Parcels II and XV-B) DRMO Site (Parcel XVII) MCFR Site (Parcel XIX and portion of I) Reuse Area 10 (Parcels V and VI)

The Navy continues to work with the City of Vallejo to make progress on the early transfer of the parcels listed above. A meeting was held February 10, 2005 between the Navy, the City of Vallejo and Lennar to discuss the recent change for Reuse Area 1, which was originally slated for Weston to develop. Lennar is now expected to be the developer for that area. The Navy's goal is to include all remaining properties scheduled to transfer to the City of Vallejo in one early transfer. Recently, Navy senior leadership in Washington provided their approval to move forward with early transfer negotiations. Some concern had focused on the appropriateness of using Environmental Services Cooperative Agreements. The next step is for the Navy and Lennar to work with DTSC to present the concept for dealing with remaining Munitions and Explosives of Concern at the Production and Manufacturing Area so that it can be the basis for early transfer negotiations for that work. Future transfers will be based on reaching agreements on property transfer schedules and acceptable cleanup cost proposals.

NAVY CONTACT INFORMATION

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http://www.efdsw.navfac.navy.mil EnvironmentalMareIsland.htm

RESTORATION ADVISORY BOARD MEETING SCHEDULE

Thursday, March 31, 2005
Thursday, April 28, 2005
Thursday, May 26, 2005

Meetings begin at 7:00 p.m.

Location: John F. Kennedy Library
505 Santa Clara Street
Vallejo, California 94590