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

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MARE ISLAND
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HELD THURSDAY, May 29, 2014

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINSY) held its regular meeting on Thursday, May 29th, 2014, at the Mare Island Conference Center, 375 G Street, Vallejo, California. The meeting started at 7:08 p.m. and adjourned at 9:14 p.m. These minutes contain a transcript of the discussions and presentations from the RAB Meeting.

RAB Community Members in Attendance:

- Myrna Hayes (Community Co-Chair)
- Michael Coffey (Community Member)
- Chris Rasmussen (Community Member)
- Paula Tygielski (Community Member)

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

- Janet Lear (Navy Co-Chair)
- Chris d'Almeida (Environmental Protection Agency)
- Kathleen Diohep (City of Vallejo)
- Dwight Gemar (Weston Solutions, Inc.)
- Janet Naito (Department of Toxic Substances Control)
- Reginald Paulding (Navy)
- Sheila Roebuck (Lennar Mare Island)
- Neal Siler (Lennar Mare Island)
- Elizabeth Wells (Regional Water Quality Control Board)
- Ryan Wensink (Battelle)

Community Guests in Attendance:

- Mike Chamberlain (Tihydro)
- Virginia Demetrios (Community Member)
- Jim Porterfield (Community Member)

RAB Support from Sullivan-Weston Services JVA, LLC, in Attendance:

- Jessica W. Cooper (Assistant Project Manager)
- Wally Neville (Audio/Visual Support)
- Doris Bailey (Stenographer)

I. WELCOME AND INTRODUCTIONS (Myrna Hayes [Community Co-Chair] and Janet Lear [Navy Co-Chair])

CO-CHAIR LEAR: Good evening, everyone. Welcome to the Mare Island Restoration Advisory Board meeting.

We'll start our meeting with introductions.

My name is Janet Lear, I'm the Navy co-chair.

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

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

MS. TYGIELSKI: Paula Tygielski, a resident of Benicia and community member.

MR. COFFEY: Mike Coffey, RAB member from American Canyon.

MR. SILER: Neal Siler, Lennar Mare Island.

MS. WELLS: Elizabeth Wells with the Water Board.

MS. NAITO: Janet Naito with the California Department of Toxic Substances Control.

MS. DIOHEP: Kathleen Diohep. I just started with the city of Vallejo.

MR. GEMAR: Dwight Gemar with Weston.

MS. DEMETRIOS: Virginia Demetrios with ERRG.

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

MS. ROEBUCK: Sheila Roebuck, Lennar Mare Island.

MR. CHAMBERLAIN: Mike Chamberlain, Tihydro.

MR. PAULDING: Reginald Paulding, a contractor for the Navy.

MR. WENSINK: Ryan Wensink, Battelle.

MS. COOPER: Jessica Cooper, Sullivan International Group.

II. PRESENTATION (Reginald Paulding [Navy] and Ryan Wensink [Battelle]): *Investigation Area K Remedial Investigation and Feasibility Study, Installation Restoration Program*

CO-CHAIR LEAR: Okay. So we'll have our first presentation. This will be about Investigation Area K, the Remedial Investigation Feasibility Study. Presenters will be Reginald Paulding with the Navy as well as Ryan Wensink with Battelle.

MR. PAULDING: Good evening, everyone. Thank you.

As Janet says, we'll be talking about IA-K, which is the offshore portion of Mare Island, which is Mare Island Strait and the Carquinez Strait.

And I will be tag-teaming here tonight with Ryan. He's managed to come out from Ohio to help us out here. We brought Ryan out because he's been working on this project since, what, 2009 or before, right? He has a lot of background knowledge on the site. So make sure you ask him all the tough questions.

MR. COFFEY: Tap that microphone a couple of times.

MR. PAULDING: How's it now?

MR. PAULDING: Okay. Okay. All right. Sorry about that. All right. How about now? No? Can you hear me? Paula can hear me.

Okay. So what we have here is the outline of our presentation for tonight. I gave you kind of a preview on what is IA-K. Again, it's the offshore area.

We're going to talk about site history.

We're going to talk about what is the CERCLA process, just a very brief overview.

Some dredging activities at Mare Island.

We'll talk about the previous investigations that have all come into this RI report. The Remedial Investigation report consists of several different investigations.

We'll talk about the Risk Assessments for human health and for ecological.

We'll also talk about a subsequent data gaps investigation which was done in November 2012.

We'll talk -- give you the conclusions for the Remedial Investigation.

And then we'll move into the feasibility study portion of the presentation. Talk about Target Treatment Zones.

We'll talk about the remedial alternatives that we've evaluated for as part of the Feasibility Study. And then the path forward and the schedule for the RI/FS (Remedial Investigation/Feasibility Study).

And then the pictures here. So you'll notice throughout the presentation we tried to put some photos and maps that show different portions of IA-K.

Here we're looking at Dry Dock Number 2 at the top picture.

And then this bottom one here is the area off of IR-04 looking south.

Okay. So IA-K, here on the second slide we're looking at, it shows you the stretch from the Highway 37 Bridge running south along the shore down to Carquinez Strait around what we call the South Shore Area (Dike 12). And that's approximately 4.4 miles of shoreline.

And so what you see, here is -- it also includes the outfalls. There's something like 50 outfalls along the way there, and they're marked with these circles with the squiggly line.

And the ones -- also have sloughs. So the sloughs that run from the outfalls into the strait are included as part of IA-K. And the ones with sloughs are here. These.

And you -- oh, I'm sorry, yes. And you have a set of figures, full size 11" x 17" figures that show these -- all of these maps are on full size figures for you.

And then these boxes here, 1 through 54 or 56, and then there's *A and Bs*; those were used to define the sampling areas for the RI: previous sampling events.

And one last thing. So the IA-K was broken up into four areas: there's this Fleet Reserve Pier area; what we call north Mare Island Strait; South Mare Island Strait; and the South Shore Area.

And those are all discussed in the Remedial Investigation. And that was how it was broken up, just to make it more manageable because there was a lot of sampling, a lot of data.

Okay. So to get to some site history. What you'll see here is primary shipyard activities at Mare Island, included construction and maintenance of ships, manufacturing and storage of munitions, and ship berthing and mooring.

And we had numerous piers along Mare Island in the Mare Island Strait and South Shore Area.

Going from north to south you had the fleet reserve piers which were used for mooring inactive vessels. And that was post-World War II; ran to about 1974 or -5 timeframe.

We had these north building ways, which included wooden support structure used for construction of new ships.

The -- going a little bit further south, just south of the causeway where we have berths one and two, which were used for mooring of destroyers, submarines, and smaller boats later on.

Then we get to the north Mare Island Strait where we had a lot of mooring of ships overhaul and conversions and repair work.

South Mare Island Strait was used more for abrasive blasting and munitions manufacturing, handling, and storage. And that was also where they would offload, load and offload the munitions when the ships came in and when they headed out.

And then at the very south end of the island, the Carquinez Strait area you have the South Shore Area where there was more munitions storage and handling and there's a lot of those ammunition bunkers.

So then the munitions: which, if you remember last May, I came up here and we gave a presentation on the munitions response program. And the two programs are going to come together -- the munitions program and the chemical program -- are going to come together at the Proposed Plan stage, which is this slide right here.

So the CERCLA overview. So we do a Preliminary Assessment/Site Inspection for IA-K. That was early, early on, back in like '96, '97 timeframe.

And then the Remedial Investigation and Feasibility Study area is where we are now. And the remedial investigation has been ongoing for quite some time, but we're getting very close here to wrapping it up.

And we're moving into the Feasibility Study phase where we'll look at the results from the RI, and we'll look at different remedial alternatives and which is the preferred.

And that will be presented in the Proposed Plan, which is where we have the public comment period, and we'll come up and present the findings from the RI, and we'll present the different alternatives for remedial action.

And that's where -- so at the Proposed Plan phase (stage) -- that's where we're going to combine both the munitions and the chemical.

And then we'll have one path to the Record of Decision and ultimate remediation at the site.

And what you have here on the bottom right, that photo is Battelle in action when they were working on the data gap survey late last year, or 2012 even, I'm sorry, time flies.

And in that top photo I think that's -- what -- off of the PMA? I believe so.

CO-CHAIR HAYES: Maybe a little north, isn't it?

MR. PAULDING: Maybe north of the IR-04. And here we'll talk about dredging. And I think you also have an 11" x 17" of this. But what you see here along the shoreline is there were

various areas that the Navy maintained at certain depths just for, you know, for the drafts of the various ships that would come in.

And we have the Navy channel, which is in purple; the main channel, which is in green; and then the berthing areas, which are in blue.

So the Navy channel and the main channel were maintained at 36 feet below mean lower, low water. And that, the lower low water is just a measurement kind of like sea level, it's just a different datum.

And then we also had these blue areas for berthing. They were maintained at different depths between 12 and 41 feet below mean lower low water.

And then you can see in here also some timeframes of when these areas were dredged. Some of them were dredged more recently up until 1993 or so.

So here we have the previous investigations that kind of build and lead into the complete remedial investigation document.

Starting back in 2002 we had a Baseline Environmental -- I'm sorry, Baseline Ecological Risk Assessment. And that was a collection of sediment samples, and then a ten day sediment toxicity test for various organisms, and a 28-day bioaccumulation test.

We had data from relevant onshore investigations. Again IA F-1, that's the PMA area, South Mare Island Strait.

IR-04 was sampling in the sandblast material area, the wetlands off of IR-04.

And then IA C-2 is more the area of the dry docks and a little bit more northern Mare Island Strait. And that sampling was the outfall areas and the dry dock areas. And those samples were also included in the IA-K remedial investigation.

And then in 2007 we had a Remedial Investigation pilot study where we looked at various sampling techniques and ways that we could collect samples in the water that was scaled up for the subsequent 2008 and 2009 studies which were more in depth than the studies, some of the previous work.

And then in 2009 we submitted a Draft Remedial Investigation report to the agencies for their review.

Based on those comments on that document (the 2009 Draft Remedial Investigation), we ended up looking at four additional areas for sampling, and that work was done in 2012. And those areas were identified because we needed more data in order to make conclusions about risk in those areas.

And Ryan's going to talk more in detail about the data gap sampling when he comes up here in a second.

So then what you have here on this figure, you see a ton of sampling locations. And I think -- what was it -- we have about 600 individual samplings.

MR. WENSINK: 800.

MR. PAULDING: Oh, I'm sorry, 800. 800 individual samples. But there are multiple samples at each of these locations. And I'll just point out a few.

So you'll see up here in this area, which is IR-03, which is one of the data gap areas: what we have here, these are the Dry Dock areas; and this is the infamous Outfall Number 22, which Ryan's going to talk about.

This cluster here, this is the area off of IR-04 in that wetlands area where there's been a lot of sampling.

And, I mean, those are the big ones. And then you'll see down here this is that South Shore Area again where there's a lot of sampling out in the mudflats.

So with that, I'll hand it off to Ryan to talk about the risks. And I'll collect my keys.

MR. WENSINK: Thank you. Thanks, Reggie.

As Reggie said, I'm going to take over here, we're going to get into some of the details of the Remedial Investigation.

I'm going to talk about the Risk Assessments that we conducted. We did one for human health, and we expanded upon the Baseline Ecological Risk Assessment.

I'm also going to be getting into the results of data gaps that we characterized in 2012 in response to comments on the Draft RI Report in 2009.

And then I'm going to go a little bit further and we're going to talk about Target Treatment Zones, where remediation may occur, and what options we're looking at to achieve cleanup.

For the risk assessment we did human health. And we specifically looked at where a recreational receptor, somebody who's out as a park-goer or, you know, bird watching or what have you would occupy. And so really in IA-K the only portions that are accessible are areas where the sediment, you can walk on it at low tide.

So we used bathymetric data from surveys conducted in 2012 to figure out what those exposure units look like: where can you walk out into IA-K when the tide is low?

And based on that bathymetric data we identified the Fleet Reserve Pier, near shore portions of the Fleet Reserve Pier, near shore portions of the south Mare Island Strait, and most of the South Shore Area where we have widespread mudflats extending pretty far offshore.

In addition to looking at risks to the recreational receptor, we also did a comparison of sport fish caught in the Mare Island Strait versus sport fish that would be caught outside of the Mare Island Strait in the San Francisco Bay at large. And I'll talk a little bit more about that.

For the Baseline Ecological Risk Assessment, we identified three different types of ecological habitat that occur at Mare Island, and they were evaluated individually based on the types of receptors that may occupy each of those exposure units.

The first of the three is deep water habitat without any adjacent wetlands or areas that are accessible at low tide.

The second is offshore habitat that might butt up to a wetland -- let's say in the south Mare Island Strait -- where you have that long wetland along the PMA. That area was classified as Ecological Exposure Unit 2.

And then areas with significant mudflats, such as the South Shore Area where those mudflats extend pretty far offshore during low tide, and then the area offshore, the sandblast material again where you can see a pretty substantial mudflat.

So those three Ecological Exposure Units were evaluated based on the receptors we expect to find there and the way that they would occupy the space.

In addition to looking at risk to wildlife, mammals, and birds, we also looked at the risks to benthic receptors. And those we'll have a picture of when we get to the BERA (Baseline Ecological Risk Assessment)-side.

This is a lot of text, and I'll get to the gist. The first part talks about the direct exposure. Here we're talking about, again, a recreational receptor that would be touching sediment that may incidentally ingest sediment that they get on their hands.

Based on the data for each of these exposure units, we looked at surface sediments. So sediments that somebody would come in contact with if they were occupying those exposure units.

In the Fleet Reserve Pier -- all of them are relatively low risk. The Fleet Reserve Pier was the only one that was in the risk management range. But as you can see, the cancer risk within the fleet reserve pier was 3×10^{-6}. And that's at the low end of the risk management range, almost at that point of departure of 1×10^{-6}.

In the south Mare Island Strait and in the South Shore Area, we had risks to recreational receptors that were below the point of departure of 1×10^{-6}.

And so based on those evaluations no further action was recommended to reduce the risk to human health because there was really low risk in all three exposure units.

Consumption of sport fish was an evaluation that was conducted. It was more of a qualitative evaluation in that we took all of the surface sediment results from the entire Mare Island Strait, and we used that chemistry to model what the fish tissue concentration would be for a fish that was occupying the strait.

And we compared that concentration of chemical accumulation in Mare Island or IA-K fish to actual fish tissue concentrations from fish that were caught and analyzed as part of the Water Board's sediment quality objections (or SQO) database.

And what we found was that the concentrations of chemicals that were modeled to occur in Mare Island or IA-K fish were comparable and generally less than those that you'd expect to find in the San Francisco Bay at large.

And so based on the results of that assessment, no further action was recommended to reduce risk of consumption of sport fish.

CO-CHAIR HAYES: What fish? Maybe these don't work, huh, we have these off?

MR. COFFEY: It's the speaker, I don't think it's working.

CO-CHAIR HAYES: Okay. All right. Well, what fish did you use in your sample?

MR. WENSINK: Well, we didn't have any fish samples. We used sediment to model what the accumulation of concentrations would be for just a general fish.

We had benthic fishes, so we had tissue results for very small fishes that would occupy the sediment and feed on the sediment, which gives us a pretty conservative estimate of the ratio of chemistry in their tissue to chemistry in the sediment. And we used that to extrapolate or model a concentration in sport fish that would be caught in IA-K. We compared that to striped bass and

white croaker concentrations for the SQO database. So the answer to your question would be striped bass and white croaker.

CO-CHAIR HAYES: Okay.

MR. WENSINK: Okay. For the Baseline Ecological Risk Assessment, the pictures kind of give you a depiction of what kinds of receptors we were evaluating risk -- for.

The upper right-hand corner is a depiction of what a benthic invertebrate would look like. It would probably, you know, if you stepped in and found one of these things, and it would probably be pretty gross-looking. You have small crustaceans called anthropoids, you have clams, and you have these worms that occupy the sediment. And these things live in the sediment, they feed in the sediment, and they often serve as a food source for higher trophic level or predatory type species such as the mammals and the birds that we assess risk for.

So going around from the top. We have a harbor seal, a western sand piper, an osprey, a surf scoter, and a river otter which I understand is kind of making a comeback in the San Francisco Bay.

Based on the Ecological Risk Assessments, which was done for each of the three exposure units, for each of those higher trophic level mammals we did food chain modeling where back in 2008 and 2009 tissue was collected for prey, and it was used in conjunction with sediment data to look at what kind of consumption of chemicals you'd expect if any of these receptors were occupying IA-K.

And in all cases when the modeled toxicity -- reference values were compared to baseline toxicity reference values in the literature, we were below in all cases or consistent with levels that are acceptable for a wildlife receptor.

The risk to the benthic receptors were measured by conducting some biological testing. Something useful in the original slide was like a bioaccumulation test as an example of biological testing. In that case you would take sediments collected at Mare Island, and you would take a non-impacted species and you would subject it to the sediments, and you'd let it forge in the sediments for a 28-day exposure period.

You would do that for Mare Island sediments, and you would do that for a reference area, and you would compare the results. You would see whether Mare Island sediments or a benthic invertebrate occupying Mare Island sediment was any more likely to uptake chemicals than something in the reference area.

And based on that testing there was comparable results for both; and risk was considered low and within an acceptable limit for all of the species that were evaluated in the BERA.

CO-CHAIR HAYES: Were you going to talk about IR-04?

MR. WENSINK: We are.

CO-CHAIR HAYES: You will?

MR. WENSINK: Oh, I'm sorry, yeah. Thank you. The IR-04 was the one area where based on the history and some of the older sediment results we decided to carry it forward for another additional evaluation.

We had previously had a handful of samples that were used in the Baseline Ecological Risk Assessment. We wanted to collect more because of its past use and history to make sure that the recommendation of no unacceptable risk was, in fact, being backed up by a more robust dataset.

So that's one of the four data gaps that we're going to talk about. So the SBM or the offshore area at IR-04 was carried forward as a data gap to collect more information to support remedial decision-making in that area.

So I already talked about the SBM, that's DG-4. The three other data gaps that we went out and addressed in 2012 was the sediment within the former berthing location of the Artship. That was an area where the Artship had occupied for some time, and based on its presence we simply had not been able to get in and collect any samples.

Another data gap was the offshore area adjacent to onshore site IR-03. This site had active remediation and excavation to address petroleum contamination. And because that site was so close to the quay wall, we wanted to get in there and see in the offshore habitat whether we had a buildup or a migration of petroleum hydrocarbon related chemicals in offshore sediments.

And the DG-3 is the area adjacent to Outfall 22. So everybody, those of you that were at the last RAB meeting may remember we have a high detection of total PCBs at depth directly adjacent to Outfall 22. The concentration was 1,195 milligrams per kilogram, and it was much higher than anything else we had seen by several orders of magnitude.

And so we had some data nearby, but not enough or a tight enough grid of data around that area to get a good feel for whether that was a reproducible result, and whether that represented distributed contamination in sediments within the area.

And so we collected additional cores adjacent to Outfall 22 to characterize the presence of PCBs. I'm going to go through the data gaps one by one.

This map shows the location and it's in your packet of each of the four Data Gaps [DG]: DG-1, Artship, it's in the north Mare Island Strait; DG-2 or IR-03, that's up near the causeway towards the north end of the north Mare Island Strait in Berths 1 and 2, the area that we refer to as Berths 1 and 2; and the last two are further south, with Outfall 22 being in the central portion of the north Mare Island Strait near Dry Dock 2. And the sandblast or the sandblast material being DG-4 right offshore of IR-04 directly adjacent to the Production Manufacturing Area in the south Mare Island Strait.

So DG-1 was the Artship. And for the Artship, we developed a pretty straightforward sampling grid which consisted of five sampling locations randomly distributed. Each of these locations was subject to multi depth sampling, with the first being a surface grab sample; the next being a core from 1 to 5 feet; and the last being a core that extended from 5 to 10 feet. So it's one long core and a surface grab sample.

Each of these samples was analyzed for metals, SVOCs and PAHs, pesticides, PCBs, organotins, and TPH-D (which is diesel) and -MO (which is motor oil).

Based on the results, which are on the next page, the area underneath and around the Artship was determined to be consistent with ambient conditions and below our ecological screening criteria.

One of the things that I wanted to point out [is that] we have a few highlights here of nickel. Nickel is one of the few chemicals that is detected in sediments in the Mare Island Strait at concentrations that are higher than ecological screening criteria, but that's kind of a bay-wide

issue. If you go out and look at sediments within the San Francisco Bay, the ambient concentration was determined to be 112 milligrams per kilogram, which exceeds that ecological screening criteria. And that's a function of geology and the sediments that circulate within the Bay.

And so we had a few exceedances -- which might suggest that there's an issue -- but in reality, these are really right on that 112 threshold. And the background concentration that we use to screen is not -- it represents a broad range of data. And in our case, it's an 85th percentile; suggesting that 15% of the background data set were above and 85% were below.

In our case we have three that are above, which is right around that 85-- (like 15%) of our data set, so it does align nicely with the background data set for nickel.

Based on the results for the north Mare Island Strait, no further action -- I mean for the Artship -- no further action was recommended in the area.

The offshore area adjacent to IR-03 was subject to a similar sampling protocol as the Artship with five sampling locations being sampled. Each of those, similar to the Artship, had a surface grab sample and a ten foot core with samples being collected from one to five feet and five to ten feet.

In this case we didn't subject this area to a broad suite of CERCLA constituents because we were focused specifically on TPH-diesel, and -motor oil, because those were the contaminants associated with the on shore site. We also analyzed for SVOCs and PAHs which are associated with the petroleum release.

Based on those results the IR-03 area was determined to be consistent with background. We didn't have exceedances of our preliminary remediation goal. We didn't have evidence of persistent concentrations in this offshore area adjacent to IR-03, suggesting that this area had not been impacted by the onshore release.

Outfall 22. This is the one area where we have some highlights, we have exceedances. We did find PCBs at depth. This was a challenging site to sample simply from the standpoint of sediment accumulation and consolidation.

And so what ended up happening here is we did our three samples. And one sample was intended to replicate or get as close to the original high hit as possible. And we tried multiple sampling procedures multiple times over multiple days to try to get to the target depth.

And on that particular sample -- because of sediment consolidation and its proximity to the sea wall -- we weren't able to get to the exact depth that we wanted. We were able to get within a foot-and-a-half of the previous high concentration hit.

We ended up originally starting out using these cores, which are high density plastic, and that's typical for a sediment sampling approach. You use what's called a Vibracore to advance this high density plastic into the sediment and retrieve your core.

We weren't getting deep enough with that high density plastic, so the field team ended up fabricating these aluminum rods and using those instead because they could transmit more energy into the sediment. And we were able to get a lot farther, we were able to get a lot deeper, but we weren't able to get to the target depth. We got very close.

MS. DIOHEP: The target depth was where you prior found the high concentration?

MR. WENSINK: Yeah, previously a high concentration had been found. And we hit consolidated sediments which suggest that we may have been hitting native material.

The way the Vibracore works is it essentially vibrates the sample and it liquefies the sediment at the margin, it's touching the sample. And because it's such a fine grain sediment, it has like a liquid limit, it allows you to decrease the friction and advance the core down into the sediment.

And so if you're dealing with relatively -- when I say newly deposited sediments -- if you're dealing with newly deposited sediments you can advance. When you hit something that's consolidated, either a sand or a native material, Vibracore will, you'll hit refusal. And so we got refusal at a much shallower depth than we ended up sampling at, so we used the aluminum core when we get within a foot-and-a-half.

CO-CHAIR HAYES: Ryan: what was the original sample taken with?

MR. WENSINK: The original sample was taken with a hollow stem auger which is typically used to collect a terrestrial sample, a terrestrial drilling design. You would use a hollow stem auger to like advance a well.

The problem with a hollow stem auger is that you typically do not collect a continuous core. So the reason that Vibracore is favored for sediment sampling is because when you pull your core out, you get this nice continuous core of the material and you're able to see, you know, if you have stratification, if you can screen, you know, what areas. And that's what we ended up doing was screening the areas that we wanted to sample based on any indications of impacts.

CO-CHAIR HAYES: So this will remain the mystery PCB site?

MR. WENSINK: Well, we have some really good data. And again, as we got further away from the sea wall, one of the things about the dredging process is that it was sloped away from the sea wall.

And so what I think was happening is in the area very close to the sea wall we were in that kind of the high end of the slope, and so we weren't able to get as deep because we were running into native fill.

And as we stepped out we were able to achieve our depth because we were further away from the sea wall and further away from that angle.

I'll show you the figure and show you how we did it.

And so the Outfall DG-1, this is -- I'm sorry, SO-22 -- that's the total hit at what would be in relation to the sediment surface in 2012, at about 22 to 22–and-a-half feet below the sediment surface.

We got to 20.5/20.3 feet on our deepest sample at OF-DG-1, which was intended to be directly on top. We originally went directly on top of SO-22, we had to abandon that because we weren't getting deep enough. We stepped right to the side of it with the aluminum core, and we collected the second sample over the course of a couple of days.

The remaining cores were collected using the aluminum tubes as well because that was the much more effective technique.

And with these two samples OF-22 DG-2 and OF-22 DG-3, we were able to get at and below the target depth.

And in one case, the OF-22 DG-3 sample, we did see PCBs. We obviously saw PCBs in our OF-DG-1 sample as well, but the difference is we're seeing PCBs at three orders of magnitude less than what we had previously seen.

One of the things that was noted in the SO-22 log is that right in that area directly above where the high sample was collected they ran into debris, wood. And so what we hypothesize is that the wood that was run into with the hollow stem auger may have made its way into the sample matrix and caused, as a discrete source, and caused that to spike way up.

Because, what's distributed in the sediment is at a much lower level than what you see in that old sample where they hit all this debris and this wood.

And so our starting conceptual site model for Outfall 22 is that there was a discrete source related to the treated wood. And it would really be, would potentially be related to some offshore construction for a wood to be buried deep, and it likely had to have been placed there. And so we hypothesized that the treated wood was related to PCBs and sample matrix interference.

What we were able to confirm is that PCBs are isolated. We have non-detect concentrations in the three other samples. At NMB32-01, we have non-detect concentrations in OF-DG-2, and we have low concentrations in a thin layer in OF-DG-3.

And so the overall conclusion is that PCBs are deep, there's no route of exposure. And so in this area, despite the low levels of distributed PCB contamination that we see, no action would be taken because there's no route of exposure.

CO-CHAIR HAYES: So that debris was cleared at the time that the first sample was taken?

MR. WENSINK: Well, there's really no -- I mean, a lot of it is speculation based on what they were feeling at the ground surface. Because they're not -- like with our samples you're getting a core and you can see exactly what's in your sample.

With a hollow stem auger you get down to a certain depth with your auger and then you do what's called a split spoon sample, and you collect your sample. You really don't get as high a resolution. You're doing a lot of it based on feel, especially when you're drilling under water.

CO-CHAIR HAYES: At that location, are you going to -- I assume there's going to be future dredging, and will that dredge up whatever that source was?

MR. WENSINK: Right now the depth of the high hit of 1,195, that was below the Navy -- former Navy -- dredge limits, and it was well below the dredge limits in what was done, I think, in 2010. And so based on that history, that high concentration is below where dredging was historically done, and so we don't envision there to be an IC.

The last data gap area was the sandblast material area. And in this area we collected only surface sediment and we analyzed it for broad suite and we did some biological testing.

Samples were analyzed for metals, SVOCs, PAHs, pesticides, PCBs, organotins; and was also subject to bioaccumulation testing. The surface sediment in the sandblast area was consistent with background.

One of the reasons we went back out and collected these data are because of what's called natural recovery. So over time you can get, in this environment especially where sediments deposit, you can get sediments depositing, and essentially serving as a layer.

In this case, we collected the surface sediment. Those are zero to 0.5 feet. And we had no results that exceeded our ecological PRGs, and the data looked very comparable to the data collected everywhere else, and very comparable to the ambient.

In addition, the biological testing showed low potential to bioaccumulate, and this area was recommended for no further action.

CO-CHAIR HAYES: I know that Weston did and the Navy did a -- what was that? -- a non-critical time critical removal action?

MR. GEMAR: Yeah.

CO-CHAIR HAYES: In the source area east of the -- or west of the IR-04 wetland -- and then you're saying that you did this offshore sample and you don't, there's nothing above, you know, nothing to be worried about or what, no further action. Well, then that leaves the wetland itself.

So where -- who -- what's -- maybe I'm not asking the right people the right question, but what do you do with that wetland?

MR. PAULDING: Yeah, I -- right.

CO-CHAIR HAYES: Did -- is it sampled? it's not [IA]-K, so when does it get its day?

MR. PAULDING: So, its day is coming. The wetland -- the wetland is part of IR-04.

CO-CHAIR HAYES: Yes.

MR. PAULDING: And we're in the midst of doing a Remedial Investigation in IR-04 currently. We're going to collect some more samples later this summer, and then we're going to come out with a Remedial Investigation report and then the Feasibility Study.

And during the Feasibility Study portion we're going to evaluate the wetlands. We have a lot of data in the wetlands, so that will be evaluated. And we're going -- and I can't say exactly what will happen in that as a part of that evaluation, but we will definitely come and, you know, give a presentation. But that's part of the uplands area and not part of IA-K.

CO-CHAIR HAYES: Right.

MR. PAULDING: So, I mean, but it's coming. The answer to your question is that that data is going to be presented as part of IR-04.

MR. WENSINK: I'm going to confuse it further when we get to the target treatment zones.

CO-CHAIR HAYES: Well, I'm not confused at all, I'm really not, so don't try to confuse me further because then you'll have to start from baseline or do something else.

But I guess my concern obvious -- to bring it up is that whatever, if you do need to do a remedy of some sort for IR-04, it looks like you're not going to want to impact your offshore area by whatever you decide to do, whether you have to excavate or whatever.

MR. PAULDING: Right. We would definitely want to avoid impacts to the IA-K and the submerged lands.

CO-CHAIR HAYES: Cause it looks like now you have two separate, you might have anyway, unless IR-04 has done something magic with itself, you might have a -- an area that you considered clean or no further action, and then one adjacent to it that you might have to take action on. So I was just curious.

MR. WENSINK: Yeah, the reason -- you'll see why I was talking about confusion, because the offshore and the onshore do get confusing, especially at that interface, especially when you're talking about sloughs which I'm going to talk about next after I get through the RI conclusions.

This is just a consolidation of everything that I've already talked about. Based on the extensive sampling over many years, IA-K has been adequately characterized by those previous investigations. There's no unacceptable risk to recreational receptors in any of those areas that are accessible at low tide.

Modeled fish tissue concentrations are consistent with or less than -- generally less than what we're seeing in the San Francisco Bay at large.

There's no unacceptable risk to the benthic invertebrates in the Ecological Exposure Units.

There's no unacceptable risk to the wildlife receptors occupying and foraging in IA-K.

The data gap areas, the four that we addressed, those have all been adequately characterized, and none of them are being considered for further evaluation in the Feasibility Study.

The three areas that I'm going to talk about next are called Target Treatment Zones. We have identified Outfalls 4, 33, and 100 as three Target Treatment Zones where, based on the data that we saw and the potential for these areas to release contamination into IA-K -- portions of the IA-K that we know are protective, we're proposing further evaluation in the Feasibility Study.

I just explained the Target Treatment Zones. But essentially what you'll see, these Target Treatment Zones, these are areas where outfalls discharge or formally discharged to land.

CO-CHAIR HAYES: On the lower end of your document?

MR. WENSINK: Yeah, I think that's on my next slide. And there's a map showing where these Target Treatment Zones are located.

These are outfalls that discharge to land, and by water being discharged from the outfall and having to make its way to IA-K, these channels or sloughs formed. These sloughs were shown through RI sampling to be areas where we had multiple chemicals being detected above concentrations that we were okay with. We did some evaluations of each of the Target Treatment Zones before carrying them forward to see whether these areas had the potential to contaminate the offshore Ecological Exposure Units that they connected to, and in each case they did; so we looked at further evaluation of remedial alternatives in the feasibility study.

This map shows each of the three Target Treatment Zones. Starting from the left, Target Treatment Zone 1 is Outfall 4. And that's in the -- at the north -- I'm sorry -- the south end of the fleet reserve pier in that near shore area.

Target Treatment Zone 2, furthest to the right, that's Outfall 33. And that discharges or formally discharged to the wetland in the PMA. We're in the south Mare Island Strait for when we talk about IA-K.

And the third is Outfall 100 which is -- discharges to that sandblast material area, essentially the last data gap area that we looked at.

So each of these three areas were identified as Target Treatment Zones based on the rationale that they had elevated concentrations of multiple chemicals, and the hydraulics of a slough or

discharge point favor erosional conditions, whereas the rest of IA-K is a depositional environment.

So you can imagine during rainfall you're going to get water running over land, finding its way into a storm sewer system, and being discharged to these sloughs. Those create relatively turbulent events that have the potential to suspend contamination.

And so in order to prevent that from happening and prevent that from degrading an area of IA-K that we already know to be protective of human health and ecological receptors, we're proposing remediation in each of these three areas.

The Remedial Action Objective is to mitigate the potential for sediment associated with -- this is the one for Outfall 4 but it's essentially the same RAO for each.

Mitigate the potential for sediment associated with Outfall 4 to serve as a source of chemicals to the adjacent Ecological Exposure Unit.

In the case of Outfall 4 we had elevated concentrations of metals, PAHs, chlordanes, DDX, and PCBs in surface or near surface sediments that had the potential to erode and contaminate EEU 2A (or Ecological Exposure Unit 2A).

Target Treatment Zone 2 is the Outfall 33 area. This outfall discharges through the wetland in the PMA to Ecological Exposure Unit 2B. The chemicals of concern that were identified in Outfall 33 or associated with Outfall 33 are metals, SVOCs, PAHs, chlordanes, DDX, and PCBs.

MR. PAULDING: Just remind them they have a bigger blowup.

MR. WENSINK: Yeah, you have -- all of these figures are included in the attachment if they're not legible on the slide.

DDX is the sum of DDD, DDE, and DDT pesticides that most of you are familiar with.

So the RAO for Outfall 33 is the same as the RAO that was established for Outfall 4.

The last Target Treatment Zone is Outfall 100 which discharges to the mudflats associated with the sandblast material area.

That outfall, same RAO, the chemicals of concern are metals, dieldrin, chlordanes, DDX, and PCBs. It's a similar list for most of these Target Treatment Zones.

And so each of these has the same Remedial Action Objective, but I'm going to discuss the remedial alternatives being considered for each of these three areas on the next slide.

So when it comes to sediments, there's not as many options for remediation. For these Target Treatment Zones we looked at four alternatives: the first being a no action alternative; the second being monitored natural recovery with institutional controls (and in the monitored natural recovery the sediment would remain in place over time and natural processes would be allowed to essentially attenuate; or in the case of IA-K, potentially just make that sediment less bioavailable; not an overly effective alternative in an area where you have the potential for erosion like these outfall TTZs; controls would be in place during the monitored natural recovery process to make sure nobody's accessing that contaminated area); alternative three is the installation of a stabilized cap with institutional controls being applied to make sure that nobody is disrupting or that natural processes aren't disrupting the cap (the cap would be designed during the remedial design phase of the CERCLA process to withstand, you know, normal wear and

tear; but essentially we'd be talking about installing a cap, an armored cap over the sediment, implementing periodic inspections to make sure that the cap integrity is maintained over time; but ultimately that would leave the material in place and just provide a physical barrier); alternative four is the focused removal alternative (this alternative involves excavating sediment to achieve levels that are protective of ecological receptors; essentially the same as a dig and haul that you would hear about for a terrestrial site; waste material would be removed; it would be stockpiled; when it was acceptable to take to a landfill -- i.e., dry enough -- it would be characterized with sampling, and it would be transported to an acceptable off-site disposal facility).

This table here provides the evaluation of each of the remedial alternatives. In the case -- the short story is they range in effectiveness in terms of how good a job it does, each of these alternatives does at preventing risk to ecological receptors and human health.

No action doesn't do a whole lot.

The monitored natural recovery option in the short-term doesn't do a whole lot; and in the long term likely would not be highly effective.

You're getting a little bit better with the stabilized cap alternative where providing that physical barrier would prevent contact and would keep critters and people safe.

But the most effective alternative is the focused removal alternative where that material would be removed to meet those remediation goals, and stockpiled, and taken off-site.

This isn't something you see very often, but in this case the cost for the alternative that involves removing it, and the one that's the most effective, it's also the lowest cost alternative because all of your work is being done in that first year.

And so ultimately the Feasibility Study provides the evaluation; the Proposed Plan and ROD will ultimately dictate the remedy for IA-K.

CO-CHAIR HAYES: Does this assume that you have already made the -- identified the source and made it disappear?

MR. WENSINK: Yeah. I mean in most of these cases, yeah, the whole point of doing this later is that the source is not ongoing. A lot of these areas are no longer necessarily functional. Most of these areas are areas that have had an onshore remediation or the storm lines have been, have been decommissioned when the base closed. And so in each case we don't consider this to be a continuing source problem, but a legacy contamination problem.

That's a good question.

MS. DIOHEP: How long is that stockpiled for?

MR. WENSINK: It depends on -- it depends on how saturated.

MS. DIOHEP: Months or years? You said it was all in the first year?

MR. WENSINK: Oh, months. It would be months for sure. It would be like during a summer season. You'd start it in this time of year, and by late summer the material would all be gone. You'd design your stockpile so that you have big enough piles to allow that stuff to dry passively.

And it might not be that much different than a saturated soil, so it might not take that long.

So this is the path forward and schedule.

I'm going to pass the non-functional microphone back to Reggie.

CO-CHAIR HAYES: It's working; isn't it?

MR. PAULDING: Off and on, yeah.

MR. PAULDING: So briefly, where we are right now is we are planning to go out in the field in August to do the munitions response RI fieldwork. And following that up, in September we plan to finalize the CERCLA or chemical RI/FS which we talked about today.

And then there will be a bit of a break until we get to the munitions RI and FS reports, which we hope will come out in December of 2015.

And then quickly behind that we'll be in the proposed plan and Draft Remedial Action Plan phase where we would present the preferred remedial alternative and we would have a public meeting.

And then that would be followed up with the Record of Decision, Remedial Action Plan in December 2016.

So that's kind of the timeframe of what we're looking for with IA-K.

And with that, we'll go into any questions that you might have that you didn't ask during the presentation.

MS. TYGIELSKI: Okay. Turn back a couple of pages to the evaluation of remedial alternatives. Yeah. Alternative four -- in fact, all the alternatives have low for reduced -- reduction of toxicity. I would think digging up and hauling it away would reduce the toxicity.

MR. WENSINK: Yeah. It's kind of a matter of semantics. The CERCLA criteria says through treatment, and so technically none of these represent treatment in the traditional sense.

MS. TYGIELSKI: Yeah, you're just moving the problem to another place?

MR. WENSINK: Right. And so for the reason – it's because none of those involve actual treatment.

CO-CHAIR HAYES: What is the Munitions Response Program RI fieldwork all about that you plan to conduct in August of 2014?

MR. PAULDING: So the munitions response RI will consist of a remote controlled vehicle which we're going to -- a submersible vehicle which will have several different pieces of equipment on it, including essentially a metal detector, a GPS unit, and it will also have functionality to investigate certain metallic items. It's going to -- basically it will be a large suction hose that they can control from a barge on a remote control.

CO-CHAIR HAYES: All right. I would like to ask that if you are doing that work anytime -- well, while you're doing it in August, that if there's any chance that you can demonstrate at the Mare Faire which is the second week end in May -- I mean August. In the past we've had several different technologies demonstrated, munitions related technologies demonstrated by the contractors. And if you could put that on your calendar if you happen to be doing that work or at least have that equipment out of the water and available to take a peek at, that would be really instructive. And otherwise if not possible on that weekend, then during that month that you're working, if the RAB could have a site --

MR. COFFEY: Field trip.

CO-CHAIR HAYES: -- field trip, yeah, to see how that equipment is working.

MR. COFFEY: We'll wear our waders.

CO-CHAIR LEAR: We will definitely figure something out along those lines.

CO-CHAIR HAYES: Thanks.

MR. COFFEY: Provided you get the submersible back from looking for Malaysian Airlines.

CO-CHAIR LEAR: So Reggie, could you go back to the last schedule slide?

MR. PAULDING: Yes.

CO-CHAIR LEAR: Okay. So I just wanted to clarify that the first bullet and the third bullet are part of the munitions response action activities that are going on at this site. And the reason they're on here is to show you why the Proposed Plan for the site won't occur until 2016, because we're waiting for the other process to catch up so we can merge the two portions of the site.

CO-CHAIR HAYES: So that would be submerge?

(LAUGHTER.)

MR. PAULDING: Okay. Thank you.

CO-CHAIR HAYES: Or emerge, that would be the electronic merge.

MR. PAULDING: All right.

MR. COFFEY: Reg, we're going to call you "The Voice" from now on.

MR. PAULDING: All right. Can I get a contract?

CO-CHAIR HAYES: You've got one, this is it.

CO-CHAIR LEAR: Thank you, Reggie. Thank you, Ryan.

III. PRESENTATION (Sheila Roebuck [Lennar Mare Island]: *Building 637, Investigation Area B.2-2, Contamination Identified During Building Demolition: Remediation Update*

CO-CHAIR LEAR: Okay. So moving on to our second presentation, we have a special visit by Sheila Roebuck of Lennar, and she's going to present Building 637 area status update.

MR. COFFEY: Back by popular demand.

MS. ROEBUCK: Okay. So Jessica, can I have this on slide show? Can it be this so it shows up as a slide show here too? I think it might end up --

(Thereupon there was a discussion off the record.)

MS. ROEBUCK: All right. Okay. I'm back to talk about Building 637.

MR. COFFEY: She's back.

MS. ROEBUCK: I'm Sheila Roebuck, and this is actually the third time we've talked about Building 637 and the work that we've been doing there. It is -- this is going to be our third field season working on this site. Hopefully we'll finish it this year.

MS. ROEBUCK: So brief background, since September, which is the last time I was here to talk about this, and we've done a couple of things since September that we're going to talk about. One is the Geoprobe investigation, we've done some groundwater monitoring, and the last thing we'll do is talk a little bit about our path forward.

Just a reminder, the location of the site is east of Azuar and north of Connolly Street. So it's a little north of Kansas, if that's more familiar to you.

Again, just by way of background, we had four source areas in the former Building 637 area.

There was a locomotive turntable area, which is right here.

There are hydraulic hoists that were along the southern edge of the building.

There was a former service island on the southwest portion of the building and the northwest portion.

There was an area where we found contamination that was just dubbed the northern two-thirds area for no particular reason.

This is the building before demolition.

This is what it looks like -- it looked like after demolition. It was pretty much just left --

MR. COFFEY: A mess.

MS. ROEBUCK: -- unrestored because there was no point in putting clean soil in the hole when we knew we had additional remediation to do.

This is how the site looks today. Last year after we finished the remediation, what we did was we backfilled appropriately all the areas that were clean, and where we didn't have a clean sidewall, we separated the clean from the un-remediated areas with a Visqueen barrier so we know where that is.

The regulatory framework, we've talked about this before. It's a residential reuse area.

Petroleum hydrocarbons are the contaminants of concern here. We're 300 feet or greater than 300 feet from any sensitive receptors.

The excavation remedy that we're using was contemplated in the RAP (the Remedial Action Plan) for this area.

We have a Work Plan that was approved in January of 2012 that determines, for example, the distance between samples to identify clean sidewall.

And then we have a Groundwater Monitoring Plan that we've been following that was approved in October of 2013.

As I said, it's a petroleum site. As such, the Water Board has lead, and DTSC is made aware of all of the work that we're doing, but has deferred to the Water Board.

MR. COFFEY: Proposed. July 2012?

MS. ROEBUCK: This is what we initially proposed. So these areas in green, that's what we had hoped, would take care of cleaning up. And as I said, we're in our third field season, so clearly we were not getting what we had initially hoped.

And last year we stepped out where you can see in the yellow and pink, and still there were areas where we didn't have clean sidewalls. So rather than go through the winter with holes that would fill with water, we backfilled the site as you saw.

So one of the challenges that we had both field seasons was that we would step out with the excavation and take samples and hope they would meet the comparison criteria that we were shooting for. But we didn't have great luck with that.

And what happened last year was we started to use a field screening technique called PetroFlag that I'll talk a little bit more about, but basically it's a field screening technique that we've had pretty good luck with that tells us when we think we're going to meet the comparison criteria.

So our contractor, Trihydro, this year suggested that if we did a Geoprobe investigation we could look at the character of the soil in the areas where we knew we had additional remediation to do, and use the PetroFlag data to try to evaluate how much more remediation we would have to do before we get out in the field.

And the benefit to that is that we can plan for it. We don't have a contractor wanting to demob because he's waiting around for soil, analytical results. And it's better planning for us because we know then how many trucks we're going to have to take off-site with soil.

And the risk to it is that if we find something once we open the hole that we didn't expect; for example, if we see some evidence of contamination, either visually or with the field screening technique; then we might have to do more than we expect. But we think it's a good -- it's a good system. And what we did -- I don't know if I can make this work. So -- it's not -- darn. Well, I guess it's just not working.

MS. ROEBUCK: I mean it's okay. Basically what happens --

MS. COOPER: I can turn up the volume if you want also.

MS. ROEBUCK: Yeah. Basically what happens is that this, this is the unit. And the Geoprobe sample is pushed with this. And we get a direct push. And we went to about ten feet. And so it took them a couple of pushes to get to ten feet. But we did 34 holes to ten feet in a little under 4 days.

And you can see there's basically no waste. This is their decontamination station. This is the geologist that logs the core. And this is the person who then takes the sample from the geologist and does the PetroFlag analysis. And --

MS. TYGIELSKI: So this literally is a machine that takes up the core?

MS. ROEBUCK: Yeah, it does.

CO-CHAIR HAYES: Where do the cores go then? You said you don't have any waste.

MS. ROEBUCK: We have very little waste. It basically, you know, goes into a 55-gallon drum, but it's not like you have a, you know, big hollow stem auger or anything like that.

MS. ROEBUCK: Yeah. Okay.

So this is the core that the geologist logs and selects the sample from. This is the PetroFlag field screening technique. And it only takes 15 minutes to get the results. And it's got good correlation.

Last year we correlated the laboratory data that we got with the PetroFlag data that we got, and basically what we found is that when we're under 500 parts per million with the PetroFlag, we usually pass the regulatory criteria that we are shooting for the total petroleum hydrocarbons as gas, diesel, and motor oil.

MR. COFFEY: How many samples are you taking from each core?

MS. ROEBUCK: We took one sample from each core that was selected based on either a field screening result, with like an FID (flame ionization detector) or visual evidence. But usually we didn't see anything like that, so it would be taken about two feet above the water level.

MR. COFFEY: Okay.

MS. ROEBUCK: And so this shows the -- we did 34 Geoprobe borings last week in a little under four days. And the PetroFlag data are the ones that are half circles, and the green are ones where we believe that we're going to pass the regulatory criteria because the PetroFlag results are under 500 parts per million.

And what you'll see is that we have what we think is a clean sidewall on all these areas that previously we had had red, which meant that we had not met the criteria for the PetroFlag.

And we haven't -- the data just started to come in today, so we don't know if it's worked really well or if we have some areas where we might have to go back. But we think that this is going to be really, really helpful to us for planning for this field season and hopefully finishing this work.

The groundwater monitoring that we have been doing. We installed six new wells. And the six wells that we installed we installed primarily because they were in the locations that were closest to the source areas that we had, or because we had soil analytical data that indicated a high result. So we looked for the places that we thought we had the greatest potential for contamination from soil to groundwater.

MR. COFFEY: Do you always have water in those groundwater wells?

MS. ROEBUCK: Yes.

MR. COFFEY: Even in a season like this?

MS. ROEBUCK: Yeah.

CO-CHAIR HAYES: Yeah.

MS. ROEBUCK: It just comes up and down, you know, the water levels change a little bit. But we have other wells that had been in the area before that we've used for water level data, but what that shows us is that it's very flat. It's hard to see which direction it's really flowing in because the groundwater table is very flat.

MS. TYGIELSKI: So you've added another six wells to the five you already had?

MS. ROEBUCK: Right. Those were -- the ones that were there before had been installed by others for other reasons.

But the groundwater data that we've gotten back, we've done three quarters of groundwater monitoring. And in all cases we have had no exceedances of the Tier 2 standards that we're using as our comparison criteria. So we don't have a groundwater problem there, which is great news.

So in the future we have one more groundwater monitoring event. And we don't expect it to be anything different than the three that we've already had. I mean, if that's the case then we believe we're finished with evaluating groundwater.

We hope to begin the additional excavation of soil in late June. As I said, we are just now getting the laboratory data that we hope will confirm the PetroFlag data that we collected last week. And if all of that works out, that would allow us to prepare and submit a report to the regulatory agencies in October of this year, and hopefully finish our work at this site.

CO-CHAIR HAYES: What kind of report?

MS. ROEBUCK: It will be a report of all of the soil excavation work that we've done and the groundwater monitoring that we have done.

We had initially thought that we'd be finished with the soil work well in advance of completing the groundwater, but as it turns out, it looks like they're going to be finished at a similar time, so we may have one report instead of two.

CO-CHAIR HAYES: So how many truckloads do you estimate, and what kind of mobilization do you expect?

MS. ROEBUCK: Wow. I can't tell you in truckloads. I don't know, Michael might know how many truckloads. But what they've estimated is 3,500 cubic yards of material will have to come out. So that's a lot.

MR. COFFEY: Yeah. Where's it going to go?

MS. ROEBUCK: We think it's all class two.

MR. COFFEY: Okay.

CO-CHAIR HAYES: So how many weeks do you think that job is going to be? I mean just asking for that handful of businesses that might be impacted by your hauls.

MR. COFFEY: Traffic on Azuar Drive.

MS. ROEBUCK: Pardon me?

MR. COFFEY: And traffic on Azuar Drive.

MS. ROEBUCK: Right.

CO-CHAIR HAYES: Well, that's what I mean.

MS. ROEBUCK: I think just today there's a notice going up on the website about this, today or tomorrow. But it's only going to take a few weeks to do this. You know, I'd say two to four weeks or something. Which helps, as I said, because if we know what we have to deal with, it helps us to mobilize the right amount. So that's our hope.

I'm mad the video didn't work. Couldn't figure it out.

MR. COFFEY: It's all right. We will move on.

CO-CHAIR HAYES: Takes you back to the very early days of incorporating video into your presentation.

CO-CHAIR LEAR: Thank you, Sheila.

We are at our first public comment period. Do we have any public comments?

(No response.)

CO-CHAIR LEAR: Okay. We have a ten minute break.

(Thereupon there was a brief recess.)

IV. ADMINISTRATIVE BUSINESS (Myrna Hayes [Community Co-Chair] and Janet Lear [Navy Co-Chair])

CO-CHAIR LEAR: All right. We're at administrative business. As always, if anyone has any comments on the meeting minutes, please get those to Myrna or myself or you can also send them to Jessica.

And do you have any administrative business?

CO-CHAIR HAYES: No.

V. FOCUS GROUP REPORTS

CO-CHAIR LEAR: CO-CHAIR LEAR: Okay. Focus groups.

MR. COFFEY: Yeah, nothing to report.

CO-CHAIR LEAR: Do we have any community or natural resources discussion? Okay. Technical?

MS. TYGIELSKI: I got nothing.

CO-CHAIR LEAR: All right. For city report, Kathleen Diohep is here from the city to give us a little spiel.

a) City Update (Kathleen Diohep [City of Vallejo])

MS. DIOHEP: I'm Kathleen Diohep, and I started in April. I joined the city; I'm the Economic Development Manager which is the position that they haven't had anybody in since '09 here.

MR. COFFEY: Good luck with that.

CO-CHAIR HAYES: She's just managing economic development.

MR. COFFEY: Yeah, that's right.

CO-CHAIR HAYES: She does not have to make it.

MS. DIOHEP: No, they're talking about accountability measures like being tracked on the vacancy rate in town.

So -- and I most recently was with the Port of San Francisco -- I've worked in the past at the Presidio. I worked briefly with NASA AIMS. I dealt with base closures. But I'm a business side person more than an environmental person, but the goal here is to get the land back to active reuse.

My big announcement from the city's point of view is we are going out with a demolition construction contract for Building 655 as you come off 37.

CO-CHAIR HAYES: 755?

MS. DIOHEP: 655 is the one that burned down; right? Okay. I got that. So that's going to be going out, and we're hoping that this -- the bids will be opened in June, so it's coming out soon. And we're asking, and included in that is an alternative that if they have enough funds to also demo the buildings that have been burned that are near it, and I don't know those numbers.

CO-CHAIR HAYES: And that's really -- our fire department burned, we might note for the record, as a training exercise.

MS. DIOHEP: So the general concept is that getting these derelict buildings down now will improve many aspects and get rid of risks and problems.

The next thing that we're doing is putting out a request for qualifications for a developer for north Mare Island.

MS. DIOHEP: By the end of May I was told, but it's going to be out real soon now with the idea of responses coming in September and evaluating. We're choosing that as -- a request for qualifications means tell me who you are, broadly what you want to do, and why I should choose you. It isn't like a beauty contest, like propose all of what you're going to do or propose us a hard financial number, because there are just too many complexities to work through. So you choose somebody on qualifications, then you start negotiating.

So those are our big updates.

CO-CHAIR HAYES: Thank you. Welcome.

CO-CHAIR LEAR: Yes.

MR. COFFEY: That's more than we've heard from the city in two-and-a-half years.

CO-CHAIR HAYES: Yeah.

MS. DIOHEP: So I can wait two-and-a-half years to come back.

CO-CHAIR HAYES: No.

MR. COFFEY: No.

CO-CHAIR LEAR: That was great. Thanks for joining us.

CO-CHAIR HAYES: Thank you.

b) Lennar Update (Neal Siler [Lennar Mare Island])

CO-CHAIR LEAR: So we are at Lennar update. Neal?

MR. SILER: Okay. You should have the 11" x 17" figure that we usually hand out.

MR. SILER: And as Sheila gave the presentation on, as you look up in the upper left-hand corner, that's the Geoprobe again doing the pre-excavation characterization at Building 637 area.

And in the upper right-hand corner, that is another of the field tasks that we completed this month where we actually did some petroleum hydrocarbon remediation in the two rooms in Building 121.

If you look in the foreground of that picture you can see where there was an excavation done, and then there was some staining on the floor that we washed, and the person there is collecting verification samples in that area.

CO-CHAIR HAYES: I've been waiting through the whole meeting to ask you what a concrete floor verification is, that it's a concrete floor?

MR. SILER: No, not that it's a concrete floor.

CO-CHAIR HAYES: Did you confirm that?

MR. SILER: We've verified a concern that we've got there.

MS. TYGIELSKI: You said that the floor was washed?

MR. SILER: Yes.

MR. COFFEY: Not very well.

MS. TYGIELSKI: Where did the wash water go to?

MR. SILER: The wash water, it's containerized. You see the 55-gallon drums in the back? That's where the wash water went.

MS. TYGIELSKI: Okay.

MR. SILER: And then some of the other things that we completed during the May time period. We actually did the second quarter 2014 groundwater monitoring event at Industrial Pump Station 4 and the T-2 oil/water separator.

And we did the first semiannual groundwater monitoring event at industrial pump -- I mean, not industrial pump -- Installation Restoration Program Site 15.

In addition, because we had done the pilot test during January/February through April at Industrial Pump Station 4 and T-2 oil/water separator, they completed the performance test monitoring events during April and May of this year. So those are the things that we completed.

Some of the things that we're going to be working on in the field in June, as Sheila had mentioned, we hope to get out to continue and complete the remediation of the Building 637 area.

And we're going to be working at a number of PCB sites in a number of buildings including 746, 91, 87, 225, and a number of different areas in Investigations Areas C-1 and C-2.

Some of the significant documents that we have in review right now and we're trying to close out.

We're trying to close out Investigation Area B.1, which is the crane test area.

We also have the Investigation Area C-1 RAP in review, and we hope to get comments back on that.

And one of the significant documents that we hope to get in in the upcoming month or so is going to be the Investigation Area C-2 Remedial Action Plan and the CEQA analysis and the fact sheet.

So hopefully later on this year we'll be able to have public meetings on both of those and present the remedial action program for Investigation Areas C-1 and C-2 as we go to completion.

In addition, we're working at a number of different sites, fuel oil pipeline sites, PCB sites, and we hope to get a number of those documents into the regulatory agency so we can get to closure on the Eastern Early Transfer Parcel.

So if anybody has any questions for me on what's coming up, I'd be glad to answer them.

CO-CHAIR HAYES: I have a couple of questions, Neal. Building 742 you have quite a number of -- I'm sorry, I don't know what an AL is.

MR. SILER: That's one of the PCB sites. That's an Assessment Location site.

CO-CHAIR HAYES: Assessment Location.

MR. SILER: That was identified in the ESCA. And UL just means an Unknown Location that was identified after.

CO-CHAIR HAYES: And these are inside Building 742 as compared to does the Navy -- did the Navy complete the storm --

CO-CHAIR LEAR: No, we're still working on that.

CO-CHAIR HAYES: -- the storm drain project on the outside of that building? Okay.

And then I see that you have UST 84 lower identified here in D1.3 on the left hand lower side. Can you tell us anything about that?

MR. SILER: Well, that's one of the things that we had to complete in building 84. That was an underground storage tank that we found while we were doing the solid PCB remediation in the floor. And it was actually two tanks that were left on top of each other, so it's one of the gifts that the Navy left us. So that -- we remediated that.

And what they did was some additional assessment in soil vapor, and some additional sampling, and so hopefully the results of that will lead us to closure on that portion of building 84.

CO-CHAIR HAYES: If I can just note that, as far as I know anyway, building 84 is the brick?

MR. SILER: That's correct.

CO-CHAIR HAYES: Just for people to know along Flagship, it is now anyway. And then Building 742, which I asked about earlier, is sometimes referred to as the Pink Palace on the shoreline along the waterfront. And it -- across from Blue Homes, somewhere kind of like that. And then it was a former -- I guess -- CIA-operated building.

MS. TYGIELSKI: So that's why it's a mess.

CO-CHAIR HAYES: No further comment from the community.

MS. TYGIELSKI: All those secrets to dig out.

CO-CHAIR HAYES: All those secrets, yeah.

MR. COFFEY: Edward Snow [sic] is actually hiding in that building.

CO-CHAIR HAYES: Under the concrete floor verification.

MR. COFFEY: That's actually a door right there.

MR. SILER: You're right.

CO-CHAIR HAYES: Thank you, Neal.

MR. RASMUSSEN: Neal, this is Chris. I just have one quick question that's totally unrelated to anything we've discussed tonight. And I don't even have an expectation of an answer to this tonight, an e-mail would suffice.

The question was asked in a conversation I had with some folks a few days ago; which on Mare Island in the historic district and in generally the industrial portions of Mare Island, how many of the brick buildings have or contain one or more PCB sites, and what in general is the status of those PCB sites? That may be a question for you; it may be a question for Janet or someone else.

MR. SILER: Well, generally it's that the PCB sites range from, you know, a 2' x 2' spill on a concrete floor up into an operating electrical substation. So in a number of the buildings, and I couldn't tell you how many are in each brick building, there are a number of PCB sites just because of the electrical load that was on the work that they were doing, as far as the Navy was doing when they were here on the island.

So to give you an idea, building 680 where Blue Homes is and now has the cap over the entire floor, there was something like 48 PCB sites within that building, and a lot of whom were on the main floor of the building.

There were a number of transformers that ran along the mezzanine that went right down the spine of the building. And there were some on the west side of the building that are on the mezzanine. There was one that was on the third floor. So that kind of gives you an idea.

That's probably atypical of the maximum that we see in a building. A lot of the building have anywhere from one to maybe a handful of PCB sites within them. And those are all being remediated as part of the PCB program as we move forward on the site.

MR. RASMUSSEN: Well, someone did sort of a brief run-around of the island looking at the brick buildings looking for the PCB signs on the doors, and they found two; building 47 and building 65.

MR. SILER: And I'd have to take a look at which ones still have the PCB issues associated with them.

But many of the buildings -- like 680 -- would not have the PCB signs on it, obviously, because that's been remediated. But some of the ones have been remediated and some have not. The ones that still don't have remediation should have PCB signs on them.

MR. RASMUSSEN: So, but --

MR. SILER: I can't tell you which ones. You'd have to show me which ones it would be, I can't tell you in particular unless I saw them.

MR. RASMUSSEN: But would you think there are more than two buildings with PCB sites?

MR. SILER: I really don't know. I think there's more than two buildings with PCB signs on them.

MR. RASMUSSEN: Active PCB sites?

MR. SILER: Yeah.

MR. RASMUSSEN: Thanks.

MS. TYGIELSKI: From what you were saying, it looks like the yellow part of the map will soon be green?

MR. SILER: That will probably occur. The blue, just so you know, on this map here, the blue shaded areas are areas that we've received closure for, those are investigation areas that we've received NFA for.

The green ones are ones where we only have a few sites left or are very close, or if we could get some documents done that we would be able to close those out also.

So if you look at Investigation Area B.1, B.2-2, H-2 -- which are kind of clustered in the Northwestern portion of the Eastern Early Transfer Parcel -- and then C3 -- there's only a few sites left in there; it appears that we may be able to get those completed sometime in 2015.

The yellow area are going to take a lot longer because that's Investigation Area C-1 and C-2, and each of those had about 250 to 300 active sites that required some form of investigation or remediation that's still ongoing. So those are going to take a little bit longer. We're hoping to get those done after 2015, probably within the 2016-2017 timeframe.

MS. TYGIELSKI: And none of the map is that light yellow anymore, surveying and sampling.

MR. SILER: No, that's -- surveying and sampling is hopefully all done. Knock on plastic.

MR. COFFEY: Progress.

MS. TYGIELSKI: Progress. Progress.

CO-CHAIR HAYES: Unknown unknowns.

MS. NAITO: Unless we find more of those.

CO-CHAIR HAYES: Yeah.

c) Weston Update (Dwight Gemar [Weston Solutions, Inc.])

CO-CHAIR LEAR: Okay. Weston update.

MR. GEMAR: Yes. I have one of these handouts on the table if you hadn't got it. I tried very hard this week to get a full column but I didn't quite make it.

MS. TYGIELSKI: They are getting smaller and smaller.

MR. GEMAR: Yeah, I know.

CO-CHAIR HAYES: Big print. Big print.

MR. GEMAR: Couldn't quite get the text of the offshore over there on IR-05.

MS. TYGIELSKI: Bigger font, pick a bigger font.

MR. GEMAR: But mainly there's three documents that are either circulating for comments or we're responding to comments as listed in the first three bullets.

The middle bullet actually got a final comment from Janet and the Water Board today on the feasibility study for Installation Restoration Site 5 and Dredge Pond Seven South and the Western Magazine area which are basically that area that's behind the text here. And that's a minor comment. And so we'll be issuing that feasibility study as a final here shortly.

And then that means that then we can proceed to the Proposed Plan, Remedial Action Plan for those two sites, which is the first bullet on the next paragraph.

So that's -- again, that's the -- the IR-05 and WMA, the Western Magazine area are the last two sites within the early transfer parcel that Weston has responsibility for that we're trying to close out.

And other than that, we continue to monitor the installation -- or the IA-H1 area -- and primarily the containment area which is the former landfill area that has the engineered cap over it and the bentonite slurry wall around the perimeter, and then we collect any groundwater leachate inside of that wall.

And flow rates are very low now; about one gallon per minute which for a 7,200 linear foot trench is nothing. So that's a good thing. It means that the cap has basically done its job to eliminate recharging of the waste above it. And so that is ongoing.

And no oil collected in the last couple of months either. So just watching the grass grow.

And then we also have biannual or semiannual groundwater sampling that we do.

MS. TYGIELSKI: When you were doing that work and explaining that work it was all interesting. And it's good to hear that it's working the way it was supposed to.

MR. GEMAR: It is.

CO-CHAIR HAYES: Hear, hear.

MR. GEMAR: That's it.

d) Regulatory Agency Update (Carolyn d'Almeida [Environmental Protection Agency], Janet Naito [Department of Toxic Substances Control], and Elizabeth Wells [Regional Water Quality Control Board])

CO-CHAIR LEAR: Okay. We have regulatory agency update. Don't fight for the mic.

MS. WELLS: Okay. At the Water Board we've been reviewing documents, working with the DTSC and Lennar and the Navy to get things pushed through.

The other thing is that, thanks to the Navy more so than Lennar, we've been able to donate hundreds and hundreds and hundreds of binders to local schools for reuse.

CO-CHAIR HAYES: Wow. What do they do with them?

MS. WELLS: So we try to find schools that are more low income areas or inner city, generally within Oakland, and they -- the kids use them. The kids who can't afford to buy binders for their school work or teachers.

CO-CHAIR HAYES: They don't go back to the Vallejo?

MS. WELLS: No, I haven't driven them all the way back up to Vallejo.

MS. TYGIELSKI: There are schools in Vallejo that can use stuff like that.

CO-CHAIR HAYES: We have inner city schools, they were our tax dollars.

MS. DIOHEP: We're starting a records project and we're going to be getting rid of things too at the city level, so maybe there will be binders from that perspective.

CO-CHAIR HAYES: I'm just starting -- you know.

MS. WELLS: She's targeting me.

CO-CHAIR HAYES: So you just stay out of it.

(LAUGHTER.)

MR. GEMAR: No good deed goes unpunished.

CO-CHAIR HAYES: Not around here.

MR. RASMUSSEN: Here, if you ask for trouble you'll find it.

MS. NAITO: Okay.

CO-CHAIR HAYES: Don't ask, don't tell.

MS. NAITO: My regulatory update is my director is leaving as of tomorrow. I know that a lot of you have met her. She came to us from the San Francisco Department of the Environment, and she is going back to the San Francisco Department of the Environment, but instead of at a staff level, she's going back as the head of it. So it's her dream job. No, she is not deserting us because our agency is falling apart really; she is going back because this is her dream job.

And so in the interim, our Assistant Deputy Director Miriam -- I can't remember her last name is --

MR. GEMAR: That's on record.

MS. NAITO: I know. I know. It's okay, she's used to me. She is going to be taking over control or heading up our agency.

And the Cal/EPA secretary has indicated that he has -- he's committing to do a wide search for somebody appropriate for us cause he wants to put the best person at our head. So we're looking forward to that.

I think that's it.

MS. D'ALMEIDA: Well, the big news for PCB cleanups is that we have signed off on the Buildings 742 Pink Palace: AL01, and the UL-03 to 06 (UL-03 to 06 were the pits in the floor of the building or beneath the floor), I think there were -- what -- six pits?

MR. SILER: Four.

MS. D'ALMEIDA: Four pits. And they've been closed -- well, we've accepted the closure requirements for that. And also the AL-01 is the entire floor of the building. All of the wood block had been removed from the floor, and we went back and after they had sampled, we asked them to go and sample the vertical surfaces as well to make sure there hadn't been any splatters on the wall.

CO-CHAIR HAYES: Splash, uh-huh.

MS. D'ALMEIDA: And all of those were non-detect, so it was just the floor, and the floor meets industrial criteria. So what remains for the Pink Palace is just to get the industrial use deed restriction on it. And otherwise I think it's closed for, closed for -- it meets TSCA closure for all sites. Is there anything left?

MR. SILER: One left, that's the freight elevator.

MS. NAITO: Oh, the freight elevators, okay, so you still have to do the elevators.

MR. SILER: So we have to get the freight elevators.

CO-CHAIR HAYES: Getting close.

MS. D'ALMEIDA: Others. We signed off on the Building 688 UL-01 notification and cleanup plan for; it's an electrical substation that's on the exterior of the building.

And there was a LUC termination for -- was it 781? That was the big green building that was sticking out into the middle of the street that they removed, it had a low occupancy LUC on it, and now it's gone and everything has been excavated, so we've signed off on the termination of that LUC.

So those are the main things I've been working on. There's also -- working on responses to the Navy for our comments on IR-17 Building 503 area FS. So you should have those from me tomorrow.

So that's what I've been working on.

VI. CO-CHAIR REPORTS (Myrna Hayes [Community Co-Chair] and Janet Lear [Navy Co-Chair])

CO-CHAIR LEAR: Do you have anything? Do you want me to go first?

CO-CHAIR HAYES: Yeah, sure.

CO-CHAIR LEAR: So Navy report. You have our little fact sheet of what we've been doing in the field this last month.

In May we started field work at both the Paint Waste Area, and we also continued fieldwork at the outdoor area at 742. Building 742, the former degreasing plant, was a Navy-retained condition. The Navy retained environmental responsibility for that small area that is within the Eastern Early Transfer Parcel.

So at the Paint Waste Area we started the remedial investigation fieldwork. You may recall we did a large removal action. Weston did that for us out there a few years ago, and found an area where many radiological items had been disposed, and as well as some munitions, and there was some metals contamination in the soil as well.

So we removed -- we had a large excavation there where all those items were removed. And then we're going back now to assess along the edges of that excavation, and also collect groundwater samples to hopefully get an update and complete the remedial investigation for that site.

We just completed the vegetation clearance in the area. And excavation, I believe, is starting tomorrow; is that correct?

MR. GEMAR: Probably on Monday.

CO-CHAIR LEAR: Monday.

MR. GEMAR: We'll finish up -- we have to finish up the survey, the geophysical survey of SU 12 tomorrow.

CO-CHAIR LEAR: Excellent. And we have a couple of photos at the bottom of the page, the first page here, showing the installation of the instrument verification seeds.

CO-CHAIR HAYES: Doesn't it look like a beach party? Got a little bonfire started almost there. It looks beachy.

MS. TYGIELSKI: What are instrument verification seeds?

CO-CHAIR LEAR: They're metal items that are placed in the ground so that they can check the geophysical instruments.

MS. TYGIELSKI: Oh, okay. You're checking, checking how well the instruments detect little pieces of metal?

CO-CHAIR LEAR: Yeah.

MS. TYGIELSKI: Got it.

CO-CHAIR LEAR: It's basically quality control for the geophysical.

MS. TYGIELSKI: So the seeds are --

MR. COFFEY: Sounds like job security to me.

MS. D'ALMEIDA: It's to see how well the instruments are functioning; if they're detecting what they know is there, then it gives them a confidence level.

CO-CHAIR HAYES: Maybe you'd better help us out, Dwight, because we want to make sure on the record that we know what these little seeds are for.

MR. GEMAR: No, he's right, it's job security. No, that's exactly right. Well, Paula had it right and everybody had it right. It's just that we put metal in the ground and then we run over it with the detector and make sure we can detect it.

MS. TYGIELSKI: You can find it again.

MR. GEMAR: Right. Then we take it out to the field again and we have to make sure that it's working, so that's all that it is.

CO-CHAIR LEAR: And we also continued fieldwork out at Building 742. We are planning to continue groundwater and soil gas sampling at that site this month. And that continues on.

We submitted six documents in May, and we received comments or concurrence from DTSC on three and the Water Board on four. And our next -- next RAB meeting is July 31st.

CO-CHAIR HAYES: Two microphones here. All right.

In closing up the presentations this evening, as the Co-Chair I'll let you know that we have Osprey Days -- San Francisco Bay Osprey Days -- coming up Friday, Saturday, Sunday (June 27 through 29) at the Mare Island Shoreline Heritage Preserve.

And like last year, we'll be offering boat trips along the Mare Island shore on Saturday morning, also Sunday afternoon this year. And then a lunchtime presentation, Citizen Science, and scientific presentations by members of the Bay Area Osprey Coalition. That would be the Golden Gate Raptor Observatory, Napa Solano Audubon, Golden Gate Audubon Society, ourselves, and, of course, we'll be serving fish food at lunch (fish tacos, I think) again this year

for sure (and maybe sushi). Nothing out of the strait. Oh, and I guess we can serve out of the strait now because I guess we've just learned there was no problem with the fish.

MR. COFFEY: I want an invertebrate.

CO-CHAIR HAYES: And then guided hike --

MR. COFFEY: That sounds good.

CO-CHAIR HAYES: No osprey burgers either.

MR. COFFEY: I want an anthropod.

CO-CHAIR HAYES: And there will be guided hikes, slide shows, all those things.

So if you are an osprey photographer or you are knowledgeable about osprey or you want to learn something about osprey, plan on coming out to the preserve that weekend. And we had a tremendous turnout last year for our very first year.

So what's unique about the osprey in San Francisco Bay is that this is the first time documented in the 20th century that osprey are nesting in San Francisco Bay.

I mean there is a big data gap there, or it's an actual fact that nobody ever noted any of them nesting in the 20th century, none of the previous biologists and bird documenters, or this is a new phenomenon. And so it's very -- Mare Island is considered by the Golden Gate Raptor Observatory staff to be the mother lode of osprey nesting in San Francisco Bay. And then there are more sparse nestings throughout the Bay area, Point Richmond, Conoco Phillips refinery in Rodeo, Chevron refinery, the Dumbarton bridge sites in San Francisco and Alameda, and then the Oakland Estuary.

MS. TYGIELSKI: Maybe it's because of climate change.

CO-CHAIR HAYES: So it's very exciting. If you go in and out the north gate, you'll see one that was -- a nest that was identified initially by the city's contract security guard. So an example of citizen science in helping us track where birds are nesting on the island.

You'll see one immediately to your left as you're leaving the island, either direction, sitting right there.

And then sad news to tell you that the two great blue herons that Wally and I and Eric Halbersat rescued that were in nests on Navy property adjacent to the preserve actually did have to be put down at the International Bird Rescue Center for too many broken bones for a bird that big. So sadness.

So we had 17 nests fledglings -- I mean, not fledglings but chicks, Wally, and now we would be down to --

MR. NEVILLE: We had a potential, we didn't have that many. We haven't developed a final count yet.

CO-CHAIR HAYES: Well, we lost four anyway. But exciting to be a part of this team that's really working hard on providing the best nesting habitat for them. Again, what citizen science can do when we can work with the agencies like the Navy has been working with us. We've seen at least a huge jump in counts of the chicks since the Navy has been working very, very closely with folks like Wally and ourselves.

So that's it. Thank you.

MS. TYGIELSKI: How did the birds get broken bones?

CO-CHAIR HAYES: Oh, gee whiz, they fell out of their -- the Eucalyptus limb fell.

CO-CHAIR HAYES: And the nest fell down on the ground and they crashed and burned.

MR. COFFEY: Act of God.

CO-CHAIR HAYES: It was an Act of God indeed

CO-CHAIR LEAR: Okay. Our last public comment period if anyone has comments?

MS. TYGIELSKI: Perhaps the birds are nesting here because we're warmer than we used to be. It might be a climate change thing.

CO-CHAIR HAYES: Could be just all that good fish we're feeding them.

CO-CHAIR LEAR: Okay. Thanks everyone. Drive safe and we'll see you next time.

(Thereupon the proceedings ended at 9:14 p.m.)

LIST OF HANDOUTS:

- Presentation Handout – Investigation Area K Remedial Investigation and Feasibility Study, Installation Restoration Program
- Presentation Handout – Building 637, Investigation Area B.2-2, Contamination Identified During Building Demolition: Remediation Update
- Weston Solutions Mare Island RAB Update
- Navy Monthly Progress Report, Former Mare Island Naval Shipyard, May 29, 2014