

MARE ISLAND NAVAL SHIPYARD

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Restoration Advisory Board (RAB) Meeting Minutes

HELD THURSDAY, July 28, 2016

The Restoration Advisory Board (RAB) for former Mare Island Naval Shipyard (MINS) held its regular meeting on Thursday, July 28, 2016 at the Mare Island Conference Center, 375 G Street, Vallejo, California. The meeting started at 7:12 p.m. and adjourned at 9:08 p.m. These minutes contain a transcript of the discussions and presentations from the RAB Meeting.

RAB Community Members in Attendance:

FINAL

- Myrna Hayes (Community Co-Chair)
- Paula Tygielski

Michael Coffey

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

- Janet Lear (Navy Co-Chair)
- Nicholas Shih (Navy)
- Valerie Harris (Navy Lead Remedial Project Manager)
- Neal Siler (Lennar Mare Island)
- Kathleen Diohep (City of Vallejo)
- Jonathan Largent (DTSC)

Community Guests in Attendance:

• Steve DeYoung (Reterro)

RAB Support from Construction Engineering Services, LLC, in Attendance:

- Emily Siegel
- Dan Lohr

- Doris Bailey (Stenographer)
- Wally Neville (Audio/Visual Support)

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

CO-CHAIR LEAR: All right. Welcome, everyone, to the Mare Island Restoration Advisory Board meeting. We'll start the evening with introductions. My name is Janet Lear, I'm the Navy co-chair.

CO-CHAIR HAYES: And I'm Myrna Hayes and I'm the community co-chair. I live here in Vallejo, and I've been here being the community co-chair for more than 22 years.

MR. COFFEY: Forever.

CO-CHAIR HAYES: It's pretty cool. All right, your turn, Mike.

MR. COFFEY: I'm Mike Coffey. I'm a RAB member still from American Canyon.

MR. SILER: Neal Siler, Lennar Mare Island.

Mr. LARGENT: Jonathan Largent, DTSC.

MR. SHIH: Nick Shih, Navy RPM.

MR. LOHR: Dan Lohr, CES.

MR. DEYOUNG: Hi. I'm Steve DeYoung with a company called Reterro.

MS. SIEGEL: Emily Siegel, CES.

MS. HARRIS: Valerie Harris, Project Manager with the Navy.

CO-CHAIR HAYES: It's you without a name tag, Paula.

MR. COFFEY: Yeah, that's your stuff.

MS. TYGIELSKI: That's me?

MR. COFFEY: Yeah, introduce yourself.

MS. TYGIELSKI: Hello. I'm Paula Tygielski. I'm a member of Benicia and a member of the Community Restoration Advisory Board.

CO-CHAIR HAYES: We almost outnumber you tonight.

II. PRESENTATION (Nicholas Shih [Navy]) Remedial Action Excavation for Installation Restoration Site 17 and Building 503 Area.

CO-CHAIR LEAR: All right. So we'll go ahead and get started with our first presentation. It will be on the remedial action excavation for Installation Restoration Site 17 and Building 503 Area. Nicholas Shih with the Navy will be our presenter.

MR. SHIH: Yes.

MR. COFFEY: Can we call you, Nick?

MR. SHIH: Yep. This is just left and right on the keyboard? Right. Okay. Good evening.

MR. COFFEY: Hi, Nick.

MR. SHIH: Is this on?

MR. COFFEY: Nope, doesn't sound like it.

Mr. SHIH: Is this thing on? Good evening.

Tonight's Navy presentation is on the remedial action field work that will be taking place at the Installation Restoration Site 17 and Building 503 Area this fall.

The field work will consist of excavation in two areas at the site and is expected to go from October through December, and will include some road closures which will have impacts to the residents, workers, and other portion of Mare Island, which is why, which is one of the primary reasons it's been selected as tonight's topic.

Tonight's presentation will discuss:

Site location and background.

Investigation history.

Specific details of the two excavation areas.

Transportation and traffic controls.

Best management practices to manage the contaminants that we are working with.

And the project schedule.

The site covers an area of approximately 26 acres located on the north end of Mare Island. Here's route 37 right here. It's between Walnut Avenue and Azuar Drive, and J Street traverses the site.

I would also like to say here at this time that the site's full name is the Installation Restoration Site 17 and Building 503 Area, but I'll also be using the acronym IR17 throughout the presentation for brevity.

The site was historically used as a paint manufacturing facility that operated from the 1940's to the mid 1950's in support of ship construction and maintenance so that the shipyard could supply its own paint materials in bulk.

The historic photo on the left shows Building 503 on the site just shortly after construction was completed in 1940. The photo on the right is an aerial photo from a recent era. You can see Building 503 here. And another landmark would be, obviously, J Street here. And this is Building 759 which is currently occupied by the Earthquake Protection Systems folks.

The IR Site 17 is designated for future industrial and commercial use. This conceptual site model shows the significant site features from the late 1940's when the paint manufacturing facility was in full scale operation.

The primary paint manufacturing activity was conducted in the northern portion of the site north of J Street, here, with supporting activity to the south and west. You will also notice that there were a large number of storage tanks on site used for raw materials such as oils, resins, solvents, and alcohols.

Operations also included fabricating drum containers and there was a rail system for transporting material around.

Chemicals of concern associated with the site operations are volatile organic compounds including chlorinated solvents like trichloroethene, lead, and PCB's, polychlorinated biphenyls.

This slide shows a chronology of the investigation history for the IR17. I know this font is probably too small for you to read, but I still wanted to include it anyway to show the extensive investigation history of the site and how it spans thirty years; starting from 1985 to completion of the feasibility study in 2014. And importantly, the most recent documents that are on this next slide.

The proposed plan for the site was presented last year, May 2015, and discussed the selected remedial alternative.

Now, the Record of Decision and Final Remedial Action Plan is currently being finalized this summer along with the Remedial Design and Remedial Action Work Plan for the upcoming excavation which is part of the selected remedy and is the topic of tonight's presentation.

As I stated, the field work will be conducted from October through December and will consist of excavation of contaminated sources in soil in two areas; a lead area and a chlorinated solvent area. Concentrations of lead in surface soil in this area beneath Building 503 have been determined to be a risk to future commercial and industrial workers, so the soil in this area will be removed to a depth of one foot below ground surface.

The highest lead concentrations from the site were detected in the vicinity of a floor drain where it has been presumed that materials inside the building were discharged through the drain to the soil below.

Concentrations of the chlorinated solvent trichloroethene --

CO-CHAIR HAYES: Excuse me. Excuse me.

MR. SHIH: Sure.

CO-CHAIR HAYES: Before you move on from lead, we like to have the actual levels. So can you provide that information for us?

Mr. SHIH: I think the first initial concentration that was found underneath the building -- and I'm not sure the era of which that was found -- was around 72,000, around 70,000. And that was actually removed in a previous removal action.

And subsequent further investigation to further identify the extent of that also found subsurface levels that are around, I believe, 2,000 milligrams per kilogram.

CO-CHAIR HAYES: And what are you trying to achieve? What are you trying to bring it to?

MR. SHIH: 346 milligrams per kilogram. That's also on a subsequent slide.

MR. COFFEY: And you said that this has previously been remediated as well and now we're --

MR. SHIH: There have been a number of previous removals at IR17 to remove items that were determined to pose potential immediate threat to human health. So those included some of these chlorinated solvent areas in smaller areas, the lead underneath this building, and some pockets of lead throughout this area to the north.

MR. COFFEY: So we're back into the same area and some areas that have already been taken care of?

MR. SHIH: We're back in -- yes, we're back in one area that we originally thought was taken care of, but after further investigation of the site we've determined that we needed to expand further.

CO-CHAIR LEAR: And, of course, the cleanup goals have changed over the years too.

MR. SHIH: That is also true.

CO-CHAIR HAYES: Just by the regulating agencies?

CO-CHAIR LEAR: Yes. CO-CHAIR HAYES: Oh.

MR. SHIH: Concentrations of the chlorinated solvent trichloroethene also known as trichloroethylene in soil gas in this area southeast of Azuar and J Street have been determined to

be a risk to future industrial and commercial workers as well, so the soil in this area will be removed to a depth of approximately fifteen feet below ground surface to remove the source.

The elevated trichloroethene concentrations were detected in soil gas where chlorinated solvents associated with the former paint operations have been released.

Here are some more specific details of the lead area excavation. It will measure 30 feet by 78 feet, and just the surface soil will be removed, so that's about one feet deep.

To give you an idea of that area, a tennis court is about 27 feet by 78 feet, so pretty close to the size of a tennis court beneath the building.

This equates to a volume of 82 cubic yards, around 110 tons, five truckloads, and those are end dump trucks --

MS. DIOHEP: End dump trucks?

MR. SHIH: End dump trucks. They're --

MR. COFFEY: You tilt it up to dump it out the back.

MS. DIOHEP: Oh, it looks like an N, is that what you're saying?

MR. SHIH: Yeah, as opposed to the transfer trucks --

MR. COFFEY: End.

MR. SHIH: E-N-D.

MR. SHIH: Almost the same size as like a large roll-off dumpster almost the same size.

MR. COFFEY: Like a Tonka truck.

MR. SILER: He doesn't know what that is, Mike. You and I do.

MR. SHIH: We're going to excavate underneath the building by hand.

CO-CHAIR HAYES: With Tonkas.

MR. SHIH: With Tonka trucks, yeah. With shovels, shovels and oompa loompas.

MR. COFFEY: Shovels.

MR. SHIH: And actually the soil underneath the building is lower than the surrounding grade. So there's adequate room for workers to work out there, but it is a limited access area, so we'll have to hand dig and then remove the soil with wheelbarrows out into a soil stockpile area.

CO-CHAIR HAYES: Is that how you first did the first removal of the, down to 2,000?

MR. SHIH: You know, that's a good question. I believe it would have to be.

MS. DIOHEP: Was there removal done under Building 503 before?

MR. SHIH: Yes.

CO-CHAIR HAYES: He said something like 70,000.

MR. SHIH: In a smaller area.

MS. DIOHEP: Okay.

MR. SHIH: We'll collect confirmation samples to determine if we meet our remedial goal, 346 milligrams per kilogram. And because of the limited access to the area and our limited ability to get the equipment underneath the building to compact the soil underneath the building, we will be using a concrete slurry material, controlled low strength material.

MS. DIOHEP: What does that mean?

MR. SHIH: Concrete slurry. Well, slurry would be, it's sand mixed with a little bit of cement and it's liquefied so that when you pour it in there and it dries, it hardens.

MS. DIOHEP: So to remove that later requires a jackhammer or --

MR. SHIH: You can dig it out. It's a little bit harder than kind of compacted soil, but yes, you can dig it out. And you can actually dig it out by hand if you work it hard enough.

MS. DIOHEP: Okay.

CO-CHAIR HAYES: So that will be -- you'll be absolutely confident that you'll get it all before you slurry it over; right?

MR. SHIH: Yes, we'll be collecting confirmation samples --

CO-CHAIR HAYES: Yeah, you say that, uh-huh.

MR. SHIH: -- every twenty linear feet, and confirmation samples from the bottom.

Ms. DIOHEP: And the reason for slurrying it over is?

CO-CHAIR HAYES: To put the backfill back in.

MS. DIOHEP: I understand that.

MR. SHIH: We're restoring it to a condition where previously the soil underneath of the building was compacted to support kind of the building and the structures above it, so once you kind of remove soil and you put some soil back, you kind of want to make sure you restore it to what it was before.

MR. COFFEY: They can't compact the soil.

MR. SHIH: Right. So when you're doing an excavation and you backfill the excavation, you want to make sure you compact it so that if you want to build something over it, say you want to pave it or say you want to landscape it or something, over time it doesn't settle or become kind of uneven.

MS. DIOHEP: Okay.

MR. SHIH: This figure shows the lead excavation area in pink. If that looks pink for you guys.

MR. COFFEY: Peach.

MR. SHIH: It's this area, if you cannot see the color. The figure also shows the work zones as well as the proposed confirmation sampling locations, which are the green squares.

The site will be secured by a fence enclosure. That's this line right here.

The trucking route for soil transportation trucks picking up the contaminated soils identified by the arrows; trucks will be coming on site from the east from Walnut, using J Street, going inside

the secured area, picking up the soil from the soil stockpile area, moving out on J Street, and turning a left on Azuar to leave.

Ms. DIOHEP: What do you mean? So it's going to be dug out by hand, piled up until the end, and then trucks come through?

MR. SHIH: Yes.

MR. COFFEY: What is the time frame to do all this in?

MR. SHIH: The time frame to do this excavation, Dan?

MR. LOHR: Two weeks.

MR. SHIH: Two weeks for this portion of the excavation, so October.

MR. COFFEY: You said October? So what are you going to do if it starts to rain?

MR. SHIH: We'll have to evaluate whether or not we can -- well, digging the soil shouldn't be a problem in the rain.

MR. COFFEY: No.

MR. SHIH: But if it's raining, we will have another excavation area to work on potentially. We'll have to schedule around it accordingly. If we've dug it out and the stockpile is on the ground we will protect it from runoff.

MR. COFFEY: So you just tarp it or something like that?

MR. SHIH: Yes, there's a storm water management plan for sediment control, storm water control, those types of things.

MR. COFFEY: Okay.

MR. SHIH: So we'll have to schedule accordingly between bouncing the work between this area and the other, what we can do, what we can't do, what's safe to do.

MS. DIOHEP: Why would the weather be different in the other area?

CO-CHAIR HAYES: It's open.

MR. SHIH: There may be some things that we can do.

MS. DIOHEP: Okay.

MR. COFFEY: Does this area have any open storm drains around it?

MR. SHIH: I believe there's actually a couple storm drains in the other excavation area that we're -actually blocking off. And I think there's some around, but it's part of our storm water management plan to cover those, but berms around them.

MR. COFFEY: That's what I was going to ask if you were going to put berms.

MS. DIOHEP: When in your process do you meet with Vallejo Sanitation and Flood? Because they're not aware of this project yet.

Mr. SHIH: We actually have to -- we actually have to apply for a permit for discharge to Vallejo Sanitation and Flood because we're actually storing some of the water that may come out of excavation. And so that notification will be part of that process because we plan on --

MS. DIOHEP: You should do this sooner versus later.

Mr. SHIH: Noted. Thank you.

CO-CHAIR HAYES: May I use the microphone and remind all of us to use the microphone? You can hear the clattering and trucks go by. Just in courtesy to everyone, and particularly our reporter. Thanks.

MR. SHIH: Thank you. You will notice that the fenced area or the fence encroaches on J Street. We will be closing J Street during field work. And I'll be providing further detail on the road closures in subsequent slides.

This slide shows the details of the chlorinated solvent area excavation. It measures about a one hundred feet by one hundred feet and it's fifteen feet deep.

To give you another sports-related reference, a basketball court is about a hundred feet by fifty feet, so this would actually be about the size of two basketball courts next to each other.

Since the excavation is so deep we're going to stabilize the slopes at a 1.5 to one horizontal to vertical ratio. So that means for every foot that we dig down, we have to cut back one and a half feet to create the slope accordingly.

So this excavation, since it's fifteen feet deep, we'll actually have to reach 22 feet back to accomplish that one and a half to one slope.

We will collect confirmation soil samples from the sidewalls and the bottom of the excavation to compare them against our value of 6,000 micrograms per kilogram for trichloroethene. Then we'll backfill. Once we receive the results, if they're below our comparison values, then we will backfill with imported fill and restore asphalt surfaces.

After backfill is complete, the Navy will conduct future soil gas monitoring to determine if the remediation goal is met and is continuing to stay below the goals.

CO-CHAIR HAYES: I've forgotten, maybe you said early in your presentation, what your levels are now.

MR. SHIH: The levels are now? I actually don't have that on the top, off the top of my head.

MS. DIOHEP: Another question.

MR. SHIH: Sure.

MS. DIOHEP: So because you're having to cut in on the sides, is that -- because I read through some of the documents and there was discussion of soils that will be excavated that are not contam -- that can be -- that aren't contaminated, are those coming from that cut?

MR. SHIH: I believe we're actually stockpiling -- Dan, are we stockpiling everything together or are we --

MR. LOHR: Yes.

MR. SHIH: Yes, we're stockpiling everything together, so --

MS. DIOHEP: So what was in -- I'm sorry, I'm not remembering the names of the exact document, but what just got distributed --

MR. SHIH: The Remedial Design/Remedial Action Work Plan?

MS. DIOHEP: Yeah, it talks about some things will be reused elsewhere on Mare Island or use the things that are not --

MR. SHIH: I don't believe that's the case for the site. I don't think we're reusing any soil that we're excavating from any of these excavations.

MS. DIOHEP: I'm sure I didn't make that up. I'll figure it out.

CO-CHAIR HAYES: It could be another document.

MR. SHIH: I can look into that and confirm.

MS. DIOHEP: Okay.

CO-CHAIR HAYES: Could you just explain for all of us -- I think I get it, but it doesn't mean that we all really do. Could you just explain, partly I suppose it's just because it would be tricky to try to keep those soils separate?

MR. LOHR: Yes.

CO-CHAIR HAYES: Right.

MR. LOHR: Yes. And that's the primary reason is just as we excavate it's going to be, we're going into groundwater, and we're going to be dewatering, and so that's, it's a difficult process to keep it segregated.

So everything that comes out of the hole will be stockpiled together and exported off-site.

CO-CHAIR HAYES: What is your groundwater level at that point in the year?

MR. LOHR: It varies. We've had a decent amount of rain. When we were out sampling in February it was at four feet, but we expect it to be down seven or eight feet.

CO-CHAIR HAYES: Right. But you're still going to have to dewater that 50 percent more depth.

MR. LOHR: Yes.

MR. COFFEY: What does that mean?

CO-CHAIR HAYES: Well, Baker tanks, right?

MR. SHIH: We're going to be storing it on site.

MR. COFFEY: The water?

MR. SHIH: The water. Pumping it out, storing it on site, testing it to determine if it meets the discharge limits for sanitary and flood district, and then discharging to the sanitary sewer and if it doesn't, we'll treat it.

Similar to the previous figure, this figure shows the excavation area in pink. You'll see this kind of perimeter outline area. This is actually the outline of where the excavation is going to be stepped back to. Sidewalls will be secured by a separate fence enclosure on the other side south of J Street.

The trucking route is similar as the trucks will enter from Walnut to the east, from the east, get loaded, and leave taking a left on Azuar.

So we talked about the slope of the excavation. And you can see that the west sidewall of the excavation gets very close or butts into almost Azuar Drive. So, therefore, we will be closing the northbound lane of Azuar Drive on a daily basis while conducting the work in this area.

Ms. DIOHEP: Subject to permitting from the city of Vallejo.

Mr. SHIH: Yes, correct, subject to permit.

CO-CHAIR HAYES: How badly do you want this cleaned up?

MR. SHIH: You'll find details on the road closures on a subsequent slide.

MR. COFFEY: Not to be a nitpicker about stuff, but --

Mr. SHIH: Sure.

MR. COFFEY: -- big hole, deep hole.

MR. SHIH: Yes.

MR. COFFEY: The fencing that's going to go around it, is this typical cyclone rent-a-fence that are sitting on little square feet that could be blown over by the wind? Because there are people walking around in this vicinity. And I've seen these fences just get blown over with a good stiff breeze. And a fifteen foot hole with water in it --

MR. SHIH: We plan for a chain link fence. And I think once we've identified whether or not that will be an issue we'll have to correct it accordingly. So we'll take a look at that.

CO-CHAIR HAYES: Is it going to have barbed wire on top?

MR. SHIH: No, it is not planned to have barbed wire.

MS. DIOHEP: Do you have site security plans?

MR. SHIH: At this time we do not.

CO-CHAIR HAYES: The city of Vallejo spends 1.7 million or so on site security, you would think they could --

MS. DIOHEP: 50,000. It's \$50,000 a year and they're not there all the time.

CO-CHAIR HAYES: Oh, is it a new number or a new contract?

MS. DIOHEP: Well, the north island?

CO-CHAIR HAYES: Uh-huh.

MS. DIOHEP: The north island is \$50,000 a year of your Measure B funds is spent on security on north island. It was a hundred thousand, but once we tore down buildings and got one level of residents out, the number went down.

CO-CHAIR HAYES: That's a different number.

MS. DIOHEP: Yeah, but that might -- the whole Black Talon contract might be bigger because it also includes the waterfront, other areas of the city.

MR. COFFEY: Black Talon.

CO-CHAIR HAYES: Black Talon, yeah. Well, I'm just saying that maybe how badly the City wants this done, that maybe you could incorporate their -- or orchestrate with them on this site

security thing as kind of a partner on this. Just thinking that since they're already going to be up there all the time. Just asking.

MS. DIOHEP: Yeah. That's why we would like to get a meeting about how the site work is going to be going soon. And, you know, I think the construction security should be as part of the Navy's construction project.

CO-CHAIR HAYES: Just saying.

MR. SHIH: Transportation. Transportation events will be scheduled to load and transport the soil off-site for disposal as well as bring imported fill material on site.

This picture shows a typical soil load and transport setup.

This is an end dump truck, end dump truck, okay.

MR. COFFEY: Kathy, end dump truck, see.

MS. DIOHEP: Yeah, I have a picture.

MR. SHIH: Typical soil load and transport setup where the trucks will drive up, get loaded, and then leave. The major difference is that we will probably, we will be loading the trucks with a front end loader instead of excavating directly from the excavation and putting it into the truck.

We anticipate two major transportation events, one each for import and export. Each event will be approximately 470 truckloads based on our excavation volumes. Each event will span a little less than two consecutive weeks.

For exporting the soil off-site we will be using twelve to fifteen trucks that will loop from the site to the disposal facility in Vacaville, which is approximately one hour away. This is about a two hour round trip.

For importing fill we will be using two to three trucks that will loop from the site of the material which will be barged in and staged at berth seventeen on Mare Island. This is an area that's further south on Mare Island, near Building 742 which is the pink building.

MS. DIOHEP: So you've identified the source?

MR. SHIH: We've identified a potential source, but we still need to have it approved. We still need to sample the material and make sure it meets the requirements.

MR. COFFEY: Could we ask what that is?

MR. SHIH: There are state regulated requirements for clean soil, and there are certain levels that we have to test for, but I do not know what they are.

MR. COFFEY: Do you know where it's coming from?

MR. SHIH: We've identified Decker Island which, I guess, is down the river, up north a bit.

MR. LOHR: Up there, yes.

MS. DIOHEP: Have you looked at barging off the, what's coming out, barging that out? Or is it because you're going to Vacaville you can't get there by barge?

MR. SHIH: I believe we've looked at all available sources for where this soil can go and be disposed of appropriately; and Vacaville, I believe, is probably the best logistical choice as far as

being able to do it. Otherwise if there were an easier way to do it, I'm sure we would do it, easier and more cost effective, proper way to do it.

CO-CHAIR HAYES: Yeah, I'm not sure. Has Lennar ever used a barge? You were considering the railroad at one time for the north crane area.

MR. SILER: No, we've never used a barge.

CO-CHAIR HAYES: And Lennar's never -- I mean Weston's never used a barge either, yeah, so. Just probably just due to, unlike other areas you might have worked at, I think it's just the location of where the stuff gets dumped.

MS. DIOHEP: You can use the barge on the way in because it's clean soil and it comes, and the trucks roll off. On the way out you're trying to get to Vacaville which isn't anywhere near a barge.

MR. SHIH: Right.

CO-CHAIR HAYES: Is there a barge facility at Decker Island?

MR. LOHR: Yes, it's the -- that's the only way they get the material off the island is by barge.

CO-CHAIR HAYES: But you're going to truck it?

MR. LOHR: It leaves directly from the island to Mare Island. Decker Island, yes, has a facility on Mare Island.

(Thereupon there was simultaneous discussion.)

CO-CHAIR HAYES: But you were asking could it also, the contaminated soil also be barged off? Cause you're not talking about barging here, you're talking about all truckloads including backfill.

MR. SHIH: Right. So for the waste soil and the import fill we'll be using trucks to get it to the site and from the site.

But the actual source of the material, the fill material is coming to the barge docked at Mare Island, berthed from Mare Island.

CO-CHAIR HAYES: And then trucked from Mare Island back and forth --

MR. SHIH: Yes.

CO-CHAIR HAYES: All right.

MR. SHIH: Or up Railroad Avenue.

CO-CHAIR HAYES: You should probably put that in your, that barge discussion in your, in your presentation. Cause if Kathleen hadn't brought it up, we wouldn't have known about it, would we?

MR. SHIH: Which point? I'm sorry, which point?

CO-CHAIR HAYES: How the material is getting here from Decker Island.

MR. SHIH: Okay.

CO-CHAIR HAYES: It doesn't say anything about a barge. Kathleen just happened to bring that topic up.

MS. DIOHEP: Well, I had asked him where the soil was coming from and he brought it up.

CO-CHAIR HAYES: But you'd mentioned the word barge.

MR. SHIH: I stated that, and I'll expand on it here in the transportation route slide. This figure shows the primary traffic route for the trucks exporting the waste soil. Trucks will enter the Mare Island from Route 37, and enter the site from Walnut Avenue. So they're coming down this way. They come down from Walnut Avenue. Get loaded from the J Street area. Turn left on Azuar Drive. Turn left on G Street, which is a left turn only turn right here, to a four-way stop here on Railroad Avenue. To leave back north to get onto 37 to Vacaville.

And so this is the route that they will take around when picking up, twelve or fifteen trucks at a time, for the waste soil. We will have truck bosses that will be coordinating and staggering the truck traffic to make sure that we have an efficient and steady flow of traffic as opposed to having all fifteen trucks coming and going at one time.

This green shaded area was our original area potentially selected for trucks to wait on standby if needed. However, we will be looking to other standby areas closer to the site. And ultimately we'll select a site, if we need it, that will be the most efficient, safest, and minimize the impact to the folks on Mare Island.

For import soil we have identified Decker Island as a potential source of material. It still needs to be tested, as we've discussed before. If the material is approved, it will be barged to Mare Island at berth seventeen, and we'll run two to three trucks on a continuous loop using Railroad Avenue.

So that will be -- Railroad Avenue actually turns into a two-way road here at the G Street intersection, so the berth would actually be down this way. So we'd run to Railroad Avenue, pick up, come back on Railroad Avenue this way, and actually use this street, K Street, to make our loop, and out.

CO-CHAIR HAYES: Is this also the same hours of operation as your haul for the waste?

MR. SHIH: I believe so, yes.

CO-CHAIR HAYES: So you'll be done by 5:00 p.m. every day?

MR. SHIH: Yes.

CO-CHAIR HAYES: Yes.

MR. SHIH: This slide shows the road closures and traffic controls that will be implemented during the project.

J Street, here in red, will be shut down for the entire duration of the field work, 24 hours a day, seven days a week for approximately three months, October through December.

The northbound lane of Azuar Drive between I Street and J Street, the area between the two flaggers here and in orange, will be temporarily closed from 6:00 a.m. to 5:00 p.m. during excavation and trucking activities. This is projected for about three weeks of November for removing the soil, and about another three weeks in December later once we've received results and have to bring the soil on site for import.

Flaggers will be positioned on both sides of the closure to alternate traffic on the southbound lane of Azuar Drive. The lane will be reopened at the end of each day. Alternative routes

connecting Walnut and Azuar will be available to the north at L street and G Street to the south. An encroachment permit will be obtained.

CO-CHAIR HAYES: And will you have detour, good detour signage on both of those?

MR. SHIH: Yes. As part of the encroachment permit we have to comply with traffic watch manual requirements. So detour signs, road closure signs. There will actually be cones out here for the road closure, construction ahead signs.

CO-CHAIR HAYES: Will these, because that's going to be a -- what are you going to do at night when you close at 5:00 on Azuar? So does --

MR. SHIH: The signage --

CO-CHAIR HAYES: Do these alternative routes need to be, are you going to have electronic nighttime signage that's going to alert people? Because I know Azuar is a pretty heavily, and J Street, especially northbound, for some reason a lot of people drive at a pretty high rate of speed, shoom, and then go around there.

MR. COFFEY: Put that shoom in there?

MR. SHIH: Yeah, they shoot down there and then do this turn, it's kind of like, almost like a race track.

CO-CHAIR HAYES: Yes, both of them are. So I'm just wondering if for at night you're going to have Azuar, only at night, I mean after 5:00 o'clock how it's going to be closed? You said cones, but how are they going to know at night that it's closed?

MR. SHIH: Right. So for J Street the closure is going to be happening the whole time. So the road closure signs that are associated with J Street will always be up, the fences will always be up.

For Azuar Drive the road closure is established during the day by the folks that are there, the flaggers as well as the temporary controls which are the cones. And then once it's, you know, once we finish our work at 5:00 p.m. we bring the cones in, flaggers are no longer there, and then any signs that are associated with the kind of closure of that portion of the road will be removed.

CO-CHAIR HAYES: Okay. So you're not going to need any nighttime alert about Azuar or any detour noticing?

MR. SHIH: Yeah, all the signs that tell you J Street is closed will still tell you because J Street will always be closed.

CO-CHAIR HAYES: Will those be electronic so they will light up at night?

MR. SHIH: I don't know that.

CO-CHAIR HAYES: I think it would be a really good idea because that's a pretty amazing little stretch there at night. It would be quite dangerous if people just cut through there without knowing that it was closed.

Mr. SHIH: We will -- part of the process also is that we'll be preparing a fact sheet and distributing that well in advance of the work, so that also folks that are working and living on Mare Island will have advance notice of the road closures.

MS. DIOHEP: We can use -- the city has some e-mail, e-mail newsletter type things that go out to thousands of people.

MR. SHIH: Sure, I think there are also website notifications we were going to plan on doing as well as Navy website notifications and fact sheets.

MS. DIOHEP: These are more push than just people going to a website.

MR. SHIH: Okay.

CO-CHAIR HAYES: And I think that's all great, I'm just saying that that's a very dark place up there at night, and that's when the most high speed travel is.

Mr. SHIH: I completely understand.

CO-CHAIR HAYES: And those people aren't tending to get your e-mail or your notice.

Mr. SHIH: Yes.

CO-CHAIR HAYES: I'm just saying.

MR. SHIH: Understood.

CO-CHAIR HAYES: Thank you.

Mr. SHIH: There's a lot of evidence of kind of joyriding in that area for sure.

CO-CHAIR HAYES: Yeah, something like that. Or their wheel got stuck or something.

Mr. SHIH: We talked about storm water. This slide is about best management practices. During the course of the excavation we will implement best management practices for working with the contaminants.

Examples of these are managing soil stockpiles, dust suppression, and storm water controls in the event of rain.

Examples of how you manage stockpiles would be locating them away from storm drains. Placing the stockpiles on plastic sheeting. Covering them daily with plastic sheeting as well. Installing berms around the stockpiles to prevent sediment runoff when it's raining.

Dust suppression. Plan on watering construction areas at least twice daily to keep the dust down. Transportation trucks leaving the site will be covering their loads. We'll also have wet street sweepers.

Storm water controls include sandbags;

Storm water drain protection, such as this where we have kind of fiber rolls or waddles around storm drains, and also maybe even covering them with fabric;

And monitoring during storm events where we'll take visual inspections and, if needed, collect samples.

As we stated before, we'll accumulate groundwater. The groundwater from the excavation will be pumped into an on-site storage tank, so we have that ability as well to store on-site water. And that water will be sampled to determine if it meets the discharge limits based on our permit. And we will -- that will be discharged to the City's sanitary sewer system.

The storage system will also be equipped with a treatment system, if necessary, if we need to treat the water to meet the limits.

Schedule. The Draft Work Plan was submitted in June. We are hopeful that we can finalize that this summer. It's in the draft final stage currently and we're resolving kind of some remaining comments.

As stated before, we plan on doing the field work October through December. And after the field work is complete we hope to submit the draft report in March of 2017 and finish by the end of the summer with a Final Interim Remedial Action Completion Report in August.

And the reason why it's an interim report is because all the remedial action will not be fully completed until the soil gas monitoring results have demonstrated that we have achieved our remedial goal. And this soil gas monitoring will occur over a longer period of time.

So the Interim Remedial Action Report will serve to document that we've completed the other elements of the remedial action accordingly. And when the soil gas monitoring goal is achieved, we will submit the Final Remedial Action Completion Report after that occurs.

CO-CHAIR HAYES: You know something that doesn't hardly ever get put in these presentations to us is the cost. How much? Was that in a previous document or can somebody tell us what the cost is estimated to be?

MR. SHIH: I believe some of the costs are documented in the Feasibility Study Report that was submitted in 2014. I don't have that information readily off the top of my head. That's something we can get back to you on.

MR. COFFEY: Typically with this amount of trucking going on, do those trucks ever cause any significant damage to the roadways in and out of the island?

MR. SHIH: On the island I would not know because I've never managed a project that has had trucking involved with it.

But typically, on some construction sites where you would get damage is where the asphalt or the base below the asphalt hasn't been compacted properly, so then once you get kind of those trucks with those heavy loads going over the same path, ruts get created.

So obviously if that were to occur in any area where we would be working, we would restore that.

CO-CHAIR LEAR: I'll bet Neal has some thoughts.

MR. SILER: About that? Well, if you notice on all those roads up there that there's a lot of things that are on piles. If you notice there on the roadways on Walnut and on Railroad on the north island is that there are a lot of infrastructure and the buildings that are on piles. In fact, I'm sure Building 503 itself is on piles.

CO-CHAIR HAYES: Absolutely.

MR. SILER: And if you look around at the surrounding land it is all actually subsiding. So if you look at Railroad Avenue, and I think the City has done some repair work on it, is the storm drain system is on piles, and the road around it actually subsides around it. So potentially you could do it.

I don't think that for this amount of time that it would be an issue that you're going to be on there, but over time it's always going to subside because the subsurface soil was not prepared properly.

CO-CHAIR HAYES: And especially if there is rain, that number of trucks. You got money, I suppose, to repair those holes, cause that's the, it's like Neal says, it's the most recently filled so it's got a lot of likelihood of that kind of subsidence under the -- under the road.

MR. COFFEY: Kathy, would that be any part of the city's permitting process that they would require?

MS. DIOHEP: I don't know exactly. But I think they would look at that, and they have standard practices around construction permitting like this, and that's why I just want you guys, I want you to get in early because I don't want the city, I don't want you to get through all the hoops and then the city permitting be the slow-down at the end. But I want you to get the city permitting.

Also signage, will there be a clear sign on this as to what's going on about it? Because part of the reason I want that is right at the same period of time we're going to be having a pretty significant public conversation about the big project that will be planned. So I don't want anybody to think that this demolition, this digging, this hauling is jump starting the project that hasn't been approved yet. So we should have a pretty clear sign on this --

MR. SHIH: Okay.

MS. DIOHEP: -- that is the Navy doing the Navy's thing on this, you know.

MR. SHIH: Okay.

MS. DIOHEP: Cause this is, you know, a lot of the remediation you guys have been doing of late is deep in the island, isn't getting the visibility.

CO-CHAIR HAYES: And that backs up something I've said for a few decades now, and that is that cleanup sites when they're well, just like planning sites, when they're well signed and documented actually provide a really useful education tool, and --

MR. COFFEY: For new RAB members.

CO-CHAIR HAYES: Yes, for new RAB members, exactly. But yeah, they end up being a source of information about the environmental cleanup, and tend not to have very much signage about environmental cleanup so far.

MS. DIOHEP: As opposed to this public City municipal projects that I've been worked on in the past have all these great big signs with all the names of all the elected officials that approved the project, the Navy doesn't care that much.

CO-CHAIR HAYES: Well I'm actually looking for, I certainly don't care if my name's not on this, but it's absolutely just, you know, I've asked for it many, many times, and I think this is a good example of where it could be very useful.

Not that we have millions of people walking there anymore because they're not allowed to or walking their dog or anything cheerful like that, but maybe they could drive at a high rate of speed and be told something, I don't know.

Ms. DIOHEP: Myrna, they're going to have to stop and wait for the one-way crossings at Azuar, there will be time to see it.

CO-CHAIR HAYES: Perfect. I'll come out, I'll work a shift.

MR. COFFEY: Thanks.

MR. SHIH: That concludes my presentation. Thank you.

CO-CHAIR LEAR: Thanks, Nick. So we did have that big sign when we did the work down at PMA. I know you were instrumental in getting that put together, so --

CO-CHAIR HAYES: Yeah.

CO-CHAIR LEAR: And I was thinking about that, that we needed to have something like that for both this site and the south shore area.

CO-CHAIR HAYES: Yes, it's interesting.

MS. DIOHEP: I just don't want people thinking that we jumped the gun and let a project start happening before it's been approved.

CO-CHAIR HAYES: Absolutely.

MS. DIOHEP: It will kind of look that way.

CO-CHAIR HAYES: They're getting excited --

MR. COFFEY: Especially on the north end.

CO-CHAIR HAYES: -- cause something's happening.

III. PRESENTATION (Neal Siler [Lennar Mare Island]): – Proposed Remedial Action Cooling Water Loop Investigation Area C1

CO-CHAIR LEAR: All right. So Neal Siler is going to give his presentation now on the proposed Remedial Action at Cooling Water Loop Investigation Area C-1.

Mr. SILER: Okay. I'll try to go through this relatively concisely. But I'm just going to talk about the same things I always talk about:

Give you an overview of the site we're going to be talking about;

Talk about some additional investigations that we performed to fill in some data gaps;

Talk to you about the remedial options that we considered and evaluated;

And give you an idea of what the recommended remedial option will be put together.

So if you want, I'm just going to show you a few slides here that illustrate the area. If not, you can go ahead and take a look at slides seven and eight, they give you a description of what I'm going to talk about right now.

But the Cooling Water Loop is located in the southeastern corner of Investigation Area C-1. It was constructed in the 1920's as a system to provide cooling water to the former base power plant that was located in Building 21.

A portion of it, especially the eastern portion of it has actually been tunneled through bedrock of the Panache Formation, through sandstone, siltstone and claystone.

And then the eastern portion of it was partially tunneled, and it says partially constructed, and I'm not sure exactly what that means but that's what the historic documents say. But for the unconsolidated fill that was on the eastern side, that went out the wharf out to the quay wall.

So the intake arm itself -- let's just take a look here, I have one more slide. This arm right here, it's about 570 feet long, it's actually shallower here on the quay wall or the straight end. It's about fourteen feet, dives down to about 21 feet at Building 121. There is a sump right inside here that had two pumps. So they actually brought in water under vacuum here at the site.

Now, the discharge arm is located about a hundred feet to the northwest. I should mention too that this right here is two 48-inch diameter pipes.

MR. COFFEY: Damn.

CO-CHAIR HAYES: Wow.

MR. SILER: So there's a lot of water that can be brought in through here. This is the discharge arm right here. It actually is shallower on this end and then it slopes down toward the shape. It was not in a vacuum, so it was just basically free flowing back out to the strait.

Now, there are two valves that are located here. And I have a photograph later on you can take a look, show you the valves.

That are the valves to the intake arm right there. They seem to be in operating condition. Right now they're open, we seem to be able to close them.

CO-CHAIR HAYES: Do you have a -- do you have an, a -- I don't know what this building looks like, where it is. It's confusing me. It's a big old parking lot. Do you have anything that shows what it looks like?

MR. SILER: No, I don't have anything like that. This is actually Winchells park right here. So this is Building 121 which is the former power plant. This is the new WEDA facility.

CO-CHAIR HAYES: Well, you're helping me a lot because I'm like, where's the power plant? It's not there.

CO-CHAIR HAYES: Right, we can't see it.

Mr. SILER: There's the smoke stack right there.

CO-CHAIR HAYES: Okay. All right. Thank you.

MR. SILER: So this is 165. This is the new WEDA facility. This is Building 117. This is IR15 site, Buildings 101, 225, 273.

This is an old photograph because this is Building 569 and it's gone now.

So, and the materials that they constructed this with varies quite a bit in the intake and the discharge arms. It was concrete in some places. It's brick and masonry in other places. And it comes in a variety of shapes.

The manways, there are two manways that are located about right in here. They're metal. But it also has a variety of shapes.

And this is just a schematic, the next slide, of the discharge arm. And you can see this is a 60 inch diameter. It seems to be a circular pipeline, but it becomes rectangular down here at the discharge point at the strait. But there's a couple places where you look inside that it looks like it's octagonal. So a little bit of everything that they had in this area.

Now let's go back up to this slide right here. There's a number of potential sites in this area. This is the, again the Cooling Water Loop intake arm. There are a number of FOPL segments,

fuel oil pipeline segments that run right here. These run right almost on top of the Cooling Water Loop.

And then there's also a sanitary sewer site which is domestic pump station or DOM-6, it's located right here.

There's one of these sites, which is the fuel oil pipeline site, this is collectively known as the Building 493/971 fuel oil pipeline site, three different segments of fuel oil pipelines that were either removed before Lennar Mare Island got here or were never located.

So these fuel oil pipeline segments have been characterized. There's been about 200 soil samples collected in this area, and also along the Cooling Water Loop, and about 65 groundwater samples to characterize the contamination in the area that's predominantly petroleum hydrocarbons as diesel or motor oil.

These fuel oil pipeline segments, we have no further action for those. We were able to get that back in 2014. And the reason that we're looking at the Cooling Water Loop intake arm right now is the fact that we asked, because it looked like it was kind of a blanket closure for this, and the regulator said no, we're only giving you closure for the fuel oil pipelines not the Cooling Water Loop.

We also have here at domestic pump station six, there's also petroleum hydrocarbon contamination. And the interesting thing about this -- and we'll just move down a couple of slides here -- that right there is a photograph of the valves at the quay wall, right at the strait. You can see it's open right there, that says closed. It seems that we can move those valves.

This is just a couple of slides telling you exactly what I've been talking about a little bit right here.

But all the contamination that we're seeing here as petroleum hydrocarbons appears to be concentrated along the Cooling Water Loop at about the same level, at about between fourteen and eighteen feet.

Now, those fuel oil pipelines, the deepest that they went was about four feet.

And the original thinking was that the contamination came from these fuel oil pipelines that we're seeing at depth, at deeper depth. But there's a clean layer between the bottom of the fuel oil pipeline, it's about four feet and about fourteen feet, it's a pretty much clean layer, so I find it hard to believe that I don't see any residual contamination from the top, the bottom of the fuel oil pipelines down to the Cooling Water Loop or down to where we're seeing it at domestic pump station number six.

There -- years ago there was a leak, a release of petroleum hydrocarbons down here that the Navy cleaned up, that was before we got here. But I can't see any mechanism that any kind of petroleum was able to come along this fuel oil pipeline here, although this is unconsolidated sediments, move upgradient, because mainly the pathway was to pump this fuel to the ships and not from the ships back out, so it would have gone here to the ships to actually load them. I can't see a mechanism that would account for having this fuel oil move upgradient, and then get into, actually go dive down deeper to where the Cooling Water Loop in DOM-6 are and get into that loop.

So this is kind of another area where I don't know exactly what the source is. This isn't the first time it's happened on Mare Island. If you remember years ago when we talked about historic

Independence Wharf area we had a large area of petroleum hydrocarbon contamination, couldn't find a source.

If you go back earlier, if you remember the 9th and Tisdale site that's actually on the west side of the school --

CO-CHAIR HAYES: Yeah.

MR. SILER: -- another large area where we just found petroleum hydrocarbons. We never could figure out what the source was. So this is not the first time that this has happened.

So these are eleven by seventeen figures that you have in your packet. And if you take a look at these figures -- I know there's a lot on here -- is that the contamination, which is kind of in red, is really concentrated right down along the fuel oil -- I mean not the fuel oil pipeline, excuse me, the Cooling Water Loop intake arm, right at there. And if you look even at DOM six, it's located right here. The contamination that we're associating with DOM-6 is again between that fourteen and eighteen foot level right down there along the Cooling Water Loop.

Now, when they actually did the remediation of the fuel oil pipelines, again they were concentrating on this segment right here which is G1XBE10, berth ten. And they were concentrating on an excavation that occurred right here. When that occurred right here, actually it really wasn't associated along the fuel oil pipeline, what they thought the trace of the fuel oil pipeline was, because they never found this fuel oil pipeline. But they did excavation work here, excavation work here, just a few small areas that they dug out around here, and removed the contamination associated with the fuel oil pipelines.

Now, one of the things that they really looked at, if you look at -- there's a number of groundwater concentrations down here along, in blue. Those were monitoring wells that we had along the strait, and there's also one right here, and one right here. There's one right up here.

Now, because all of these monitoring wells kept giving us a concentration that was below a fresh water or ecological, a salt water ecotox level, which for here is 640 micrograms per liter for diesel and motor oil, it appeared that none of this contamination was getting into the strait. So that was one of the justifications why the regulatory agencies closed out the fuel oil pipelines. But again, we have this issue with the Cooling Water Loop that we need to address.

So now, for the Cooling Water Loop itself, the regulatory agencies wanted us to go back, take a look at this. So we went back and filled in some data gaps. We sampled the intake arm, both pipelines of the intake arm, sampled sediment in there. Interestingly enough, the north intake pipeline has very high levels of diesel and motor oil, hardly anything in the southern intake pipeline.

And then we looked at the water. Again, we're looking at the 640 micrograms per liter fresh water and salt water ecological tox level.

We have non-detect in the water in the northern pipeline, and non-detect or very low level of diesel, but non-detect in the southern pipeline.

So it doesn't appear that anything is getting out to the strait is what we're looking at here. And that kind of bears out, years ago we did another investigation along the discharge arm of the pipeline, it was looking for something different there, looking for hex chrome and chlorinated solvents. And nothing we could see was getting out along that pipeline or around that pipeline out into the strait. And so that seems to bear true here also with this pipeline.

So again, we went back down, looked again at those monitoring wells that were down by the strait, some of them have already been abandoned, we only have a few down there, but we went down and looked at the two that are right on either side of the Cooling Water Loop. Last sample we had was 2010. We took these samples in January of 2016. Again, we're down below the levels that we need to clean up to, to have any kind of an ecological toxic issue with the strait.

So what these photos show you, it just shows you these are the two manways that we have located, this is looking down the southern manway, you can see it's constructed of metal.

Here they are collecting sediment with a clamshell sampler.

They're collecting water with just a simple bailer.

And then this shows you the contrast between what was hauled out of the north pipeline, which is this material right here --

MR. COFFEY: Gross.

MR. SILER: -- as to what was taken out of the southern pipeline. So this looks like the material that's contaminated.

So this figure right here just shows you here are the manholes right here;

Shows you the display of what's in the sediment and the water that we took out of the manholes;

And then these two right here show you where the wells are on either side of the Cooling Water Loop, and what the concentrations are below what we considered to be the cleanup level.

So we went and looked at alternatives on how to clean this thing up. And one of the things we really want to consider here is that because we have these two large pipelines, we'd like to keep these open and actually use them for storm drain discharge outfalls in the future. It's a lot easier to reuse something than try to dig a new one. So we want to try to keep these open as best we can. But that was one of our considerations.

We looked at no action, again, as always. That's our baseline, not doing anything.

Natural attenuation with groundwater monitoring.

Sealing the access points. There is a terminus in Building 121 itself. We would close that off anyway as we develop Building 121. We would actually close out the manways, actually fill those up if we're going to go with this method, and actually do some sort of permanent plug at the strait. But we don't want to do that because I'd like to keep this open to actually reuse it for a storm drain outlet.

We also looked at the removal of the contaminated sediment in the pipeline and see if there's anything else that we can do maybe outside to help keep things down, and then also complete excavation of the Cooling Water Loop intake arm.

So what we've got under consideration right now is the removal of the contaminated sediment, and then some additional things that we would do around DOM six. Probably do something like some in situ bioremediation or chem ox, some injection at that point. Or we can seal these access points and that would be the remedy.

And actually, we came up with this one, and believe it or not we got push-back from the agencies saying they like this one better.

CO-CHAIR HAYES: No.

Ms. DIOHEP: Neal, the actual pipeline is in good condition?

MR. SILER: It appears to be in pretty good condition. The thing I'm going to have to do because it's filled up with sediment, is that I'm going to have to get the sediment out of it, and then we'll go ahead and videolog it, see if we can get someone out to really take a good look at it and see what it looks like. Because the fact it's filled up with sediment we can't really do anything with it.

Probably about 2010, 2011, a person went down in there that was going to try to see, a diver, to see if he could get through it, and it was full of sediment, and he said there's no way I can get through it.

Myrna.

CO-CHAIR HAYES: Could you go back to that previous slide where you said that the regulators want you to seal the access points --

MR. SILER: Well, that was the, they said they wanted --

CO-CHAIR HAYES: -- without any sediment removal?

MR. SILER: They said that's what --

CO-CHAIR HAYES: That's silliness.

MR. SILER: -- they would like to see much more of a, you know, beef that up apparently. And, you know, this is one of those things where it's be careful what you wish for. And let me show you just why. Because I told them if that's what they wanted, this would be my parting gift to them.

Let's get back to that slide here. Okay. So let's say we seal this off right here. We seal the manways, which are about right here. And we seal this off right here. And that's the remedy.

Okay. That's an engineered control remedy. That comes with an environmental land use covenant, okay, that has to have an operation and maintenance plan, because you have to make sure that this stays in place. It has to have an operation and maintenance agreement.

And it also has to have a financial assurance attached to it. Okay.

But what's going to happen here is that this is probably going to have one owner, and that owner is probably going to be the City of Vallejo, because that's on the promenade and the quay wall right there.

This for sure is going to have another owner, Building 121 here. It's probably going to be somebody else will be in this building.

And then I'm not sure who actually the owner is of this parking lot is going to be moving forward, whether that would be a private or a public entity that will own that.

So potentially you could have three separate entities that would be trying to administer a land use covenant that would be probably very confusing as you move forward.

MS. DIOHEP: If you have it using --

CO-CHAIR HAYES: Microphone. Microphone.

MS. DIOHEP: If you're using it as a functioning, using it as a storm drain, then does that end up being part of the utility system at the end of the day?

MR. SILER: Yes.

Ms. DIOHEP: So you're trying to get it clean enough that storm water can run through it?

MR. SILER: Yes, that's correct.

MS. DIOHEP: And that saves, that makes sense. I mean, I can see why that would. So then that doesn't have this multiple ownership issue.

MR. SILER: No.

MS. DIOHEP: But there isn't a need for somebody to be able to walk through it into these buildings.

MR. SILER: No., you know, we would shut this off anyway because, you know, this thing here, nobody in the building needs to get into the cooling water --

CO-CHAIR HAYES: You don't think.

MR. SILER: But that wouldn't be part of the remedy, because what I'd rather do is take all that sediment out of it, and then we wouldn't have this issue.

CO-CHAIR HAYES: Yeah, I mean, why not? The sanitation district has those big old vacuum cleaner machine trucks, why couldn't you do that?

MR. SILER: And that's exactly what we're proposing to do.

CO-CHAIR HAYES: Then I don't get, could the agencies, whoever was --

MR. SILER: It's not John. John didn't, you know, he doesn't know.

CO-CHAIR HAYES: I know he's the new guy on the block, but he doesn't regulate --

MR. LARGENT: No, it's Allen.

CO-CHAIR HAYES: All right. Could you give us the reasoning for why the agencies like the idea of blocking it off then?

MR. SILER: I think they just want it sealed off so nobody has access.

CO-CHAIR HAYES: But they, but just access to the contaminant or access period?

MR. SILER: Access to the contaminant.

CO-CHAIR HAYES: Oh, well, I would -- this is surprising to me that an agency would want to leave it in place. I -- maybe you can come back sometime and have them have a conversation with us, because that seems like --

MR. COFFEY: Whatever happened to reuse?

MR. SILER: It certainly wouldn't be my preference. I'd rather take that out and reuse it.

MR. COFFEY: Yeah.

CO-CHAIR HAYES: Well then, maybe we can at least plan on an update when the representative from the agency, representatives are here. Cause maybe the Water Board has some jurisdiction, I don't know.

What I'm curious about is why this is just now coming on the radar screen or just being worked on -- or maybe you'll correct me on that -- given that the new maintenance facility is so close by, and it seems like probably things were torn up or whatever, why you didn't work on this simultaneous with them, because now it looks like you might have a, some project that could interrupt their operation. I don't know if that's possible.

MR. SILER: And I think our goal is to move this out of there and get the material out of there is to be least disruptive of their operation. If you get to complete excavation of this thing to take it out, you might as well forget operating down there and just shut everything down.

CO-CHAIR HAYES: I would not do that.

MR. SILER: And you're going to have, you know, all these trucks moving in and out of there, you're going to have excavation equipment, it has to be shored, you're going to have to dewater. It's fourteen, twenty feet deep. It's going to be a mess. So we would like to not do that.

So as these things come up, and as -- and again, this is one of those things where it ran the line between what a known site is and what an unknown site is. And so CH2M Hill was working on part of it, and then you have the insurance company involved. And so then you have to kind of work through this labyrinth to try to get everything taken care of.

CO-CHAIR HAYES: I understand.

Mr. SILER: And so sometimes it always doesn't work out that it can always be done at the same time.

CO-CHAIR HAYES: Understood.

MR. SILER: So again, you know, no action, just again looking at these options. Provides a baseline. You're not limiting exposure. You're going to continue to have the contaminant in there that exceeds the cleanup levels. Nothing to implement, no cost, that's great, but it's not going to meet regulatory requirements and we're never going to close this site.

So natural attenuation with groundwater monitoring. You know, again you would continue to exceed the cleanup goals. They would degrade over time just like they would here, but is that a reasonable time frame or not, hard to say.

Minor implementation issues, you know, you're just kind of moving around there all the time continuously as you move forward. Relatively low cost, but probably wouldn't meet the regulatory requirements, and yet may close the site, it may not close the site, but what is a reasonable time frame to do that.

CO-CHAIR HAYES: Is this product completely contained in the pipe? Did I miss something?

MR. SILER: It's mainly contained in the pipe. Okay.

CO-CHAIR HAYES: So natural attenuation is just gonna change the color, right, of the goop?

MR. SILER: Well, it will break it down eventually.

CO-CHAIR HAYES: But it won't disappear out of the pipe.

MR. SILER: No.

CO-CHAIR HAYES: It's been there awhile.

MR. SILER: And that's the thing too is the fact that I need this for infrastructure. So I've got a dual purpose here. I want to clean up the site, but I also want to potentially use this as a stormwater outlet.

CO-CHAIR HAYES: Yeah, like Mike just said, that's one of the goals of environmental cleanup is to reuse.

MR. COFFEY: Reuse.

CO-CHAIR HAYES: And this seems like a logical reuse solution site.

MR. SILER: Yeah.

CO-CHAIR HAYES: We're over here, we're for that remedy; right, Mike?

MR. COFFEY: We're going for it.

CO-CHAIR HAYES: Say it on the record.

MR. COFFEY: We are definitely in favor of that.

CO-CHAIR HAYES: We're with you.

MR. SILER: All right.

CO-CHAIR HAYES: We're with him.

MR. SILER: All right.

MR. COFFEY: You don't hear that very much from here.

CO-CHAIR HAYES: You should go for it.

MR. SILER: That's right. You're right.

CO-CHAIR HAYES: It's like we're at a convention, we're with Neal.

MR. SILER: So, you know, sealing the manway and the termini, you know, you'd prevent exposure, you know, nobody could get to it. Again, as I mentioned, you would continue to have this material that's in there.

Everybody thinks that this is less expensive to do, but then when you come down to the monitoring and you have the annual inspections and you have the five year review and you're getting different parties to work with this thing, you know, how long is the life span. Is it thirty years? Is it a hundred years? Do I get an H.G. Wells time machine and travel to 802701 NOCE, and what is the cost at that point?

So, you know, these long-term costs appear to be, appear to be minor, but how long do they have to be in place? And if you have a land use covenant, it's in perpetuity.

MS. DIOHEP: Neal, that was one of the areas that saw some real shaking with the quake; right? Right around that area is where you had some of the building fail?

MR. SILER: No.

MS. DIOHEP: Oh, not as much?

MR. SILER: No, that was actually further to the south.

MS. DIOHEP: I thought the actual WEDA facility --

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MR. SILER: No.

MS. DIOHEP: So that was just cause they were under construction?

MR. SILER: Yeah.

MS. DIOHEP: So these pipes survived that?

MR. SILER: Appears to have survived that. So you can see we've talked about this a little bit. Sediment removal, you know, we're going to remove everything, transport and dispose of the material off-site.

We'll have to do some groundwater monitoring. High initial costs will be greater than this right here. You'll have limited disruption, but it's going to meet regulatory requirements, it's going to close the site, and then we can reuse the pipeline.

Complete excavation, as we talked about. Obviously you're going to meet regulatory goals. You'll close the site, but this is going to be a really high cost and really disruptive.

So what we're proposing to do is remove the sediment as best we can.

Place temporary plugs in there. You know, close, temporarily seal the valves at the strait. Use temp plugs in there. Use a jetting vacuum truck, you know, from the manways down, get that in there. Jet the material out, vacuum it back out. As we're moving down the line, transfer it to waste bins, inspect the pipeline, you know, after we get done to see what it looks like, see if it's - if the contamination is there or not there. See if it persists. Continue with the groundwater monitoring. Inspect this for a while.

In addition to that, we want to look at some of the area that's just outside the pipe that's in that DOM-6 area. Probably do some in-situ remediation, bioremediation or other appropriate option. Chemical oxidation is something we're looking at right there.

But if we can't get everything out, you know, of this thing, and we can't close it off, then we'd have to, you know, again you're going to have to look at targeted areas in the exterior, we may have to seal it, we don't want to do that, we'd have to come back to that if we got to that point where we couldn't get everything out. But that's something that we, is not our first preference here. First preference is remove the sediment, get it out of here.

MS. DIOHEP: Is there like a slip lining option? You know, you don't need 48 feet, inches or --

MR. SILER: That would be something we could do, but that would be outside of the remediation.

MS. DIOHEP: Gotcha.

CO-CHAIR HAYES: Neal, is there equipment that's capable of this kind of volume or -- and this depth?

MR. SILER: Yeah, there is. And I don't know if you've seen them around the island or not, but we're actually in a campaign right now to clean up a lot of the storm sewers right now, and so we've had huge vacuum jetting trucks out here, in addition with the video logging truck that runs with it.

CO-CHAIR HAYES: Missed that. We could have had a site visit, but geez.

MR. SILER: We've actually had it along Bagley Street. So in the summertime we're doing different increments, different areas. And as we do that we're inspecting the pipeline, making sure that Vallejo San and Flood inspects those areas.

If they look good, then they take the storm drain back. If it needs repairs, then we go out and do repairs, make sure it's to their satisfaction and then they take it back.

CO-CHAIR HAYES: Good. So these are bigger vacuum --

MR. SILER: Yeah.

CO-CHAIR HAYES: I mean would this be a much bigger vacuum truck than they use because of the depth?

MR. SILER: They're basically the same size. This is a small one that we're using right now on a lateral, you can see, it kind of gives you an idea what it looks like.

But this one that we're using, it's able to go hundreds of feet, you know, so we should be able to give it the good old college try.

CO-CHAIR HAYES: There you go. And then it will do the Delta, it will make those Delta tunnels.

MR. SILER: Exactly.

CO-CHAIR HAYES: Yeah.

MR. SILER: So that's it for my presentation. If anybody has any other questions, please feel free to ask them.

CO-CHAIR HAYES: Well, I'm going to say something silly, but the City has all this old dredging piping, maybe you could just, in the spirit of the barging thing tonight, you could just use the old dredge and suck it out or blow it someplace, you know. Okay. I was just teasing though, all right. Really.

MR. COFFEY: The sediment that they vacuum out, do you guys ever test any of that stuff just for --

MR. SILER: Oh, yeah, we test that. It goes to bins, we decant off the water, you know, the water is disposed of appropriately. It's tested and disposed of. And then whatever's in the bins is tested and disposed of appropriately.

MR. COFFEY: Including the stuff you're vacuuming out of the storm drains?

MR. SILER: Oh, yeah.

MR. COFFEY: Ever find anything cool?

MR. SILER: Found a couple tires.

CO-CHAIR HAYES: No gold coins?

MR. SILER: No gold coins, no Spanish doubloons.

MR. COFFEY: Pokeman Go?

CO-CHAIR HAYES: It did. Okay. Well, that's okay then, it will come back or not. Okay.

MR. SILER: Okay. Thank you very much.

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CO-CHAIR HAYES: Oh, I know, I know. For the record, for the record, because again, there are people who read these -- religiously read our minutes, partly because they know for a fact they're straight out as, you know, just like they were said.

So could you for the record tell us what DOM is?

MR. SILER: DOM is domestic pump station.

CO-CHAIR HAYES: Yes, and just tell us what a domestic pump station is for.

MR. SILER: When they had the sanitary sewer and there's such a low slope here that they had to have areas where they had to actually pump water. So what they had is a wet well. The water would form in the wet well, there would be an intake valve, and then what would happen is the water rises, and there was a float that would kick off a pump and then it would pump the water out. So it was just a way to move the water along because of the very, very, you know, low gradients that they had here in the island.

Anything else? Thank you.

CO-CHAIR LEAR: Thanks, Neal. We are at our first public comment period.

Sure.

IV. FIRST PUBLIC COMMENT PERIOD (Steve DeYoung – Reterro)

MR. DEYOUNG: My name is Steve DeYoung. Can you hear me okay?

CO-CHAIR HAYES: Is your microphone on?

MR. DEYOUNG: Let me get closer here. I'm with a company called Reterro, R-E-T-E-R-R-O, out of Livermore. And I'm here specifically to offer comments on IR17 on the chlorinated solvent area.

And I realize that I'm very, very late to the game. I've only been with the company for a couple of months, so I know there's been a tremendous amount of work that's been done on this site.

I would just like to bring to the attention of the RAB that there, and maybe it doesn't apply to this site, maybe it's something that could be considered for other sites that have solvent contamination, our company does evaporative adsorption of sites like this, of solvent contaminated sites on-site.

So we would essentially do the same thing that's being proposed where the soil is excavated. The difference is we would treat it on-site down to whatever standards the agencies have determined, residential -- we can treat to residential standards. And then soil is placed back into the excavation.

The cost is generally comparable or less than the cost for off-site disposal. There is no truck traffic associated with it. So again, it's stockpiled, it's put into an on-site treatment system. For the amount of soil that we're looking at here, it's about a six to an eight week process. Permitting-wise, other than the city permits you need a permit from the Bay Area Air Quality Management District.

We're currently working on a project in Union City that has the same type of contamination, PCE. It's a site that we've worked on before where we treated about 10,000 cubic yards. It's a former industrial dry cleaning facility. And we're going back to treat 2,000 yards more.

So it's easily permitted. It's been permitted here in the Bay Area. It's also been permitted down in south coast. Again, I think, cost-wise it will be much cheaper. It's more environmentally friendly. Much more sustainable technology.

So again I wanted to make the Board aware of that. I know traffic is an issue out here. And that's it.

CO-CHAIR HAYES: Wear and tear on the roads.

MR. DEYOUNG: Wear and tear on the roads and traffic on and off the facility.

MR. COFFEY: Thank you.

CO-CHAIR LEAR: If you have a brochure or a technical document about the procedure we would be interested in having a copy.

MR. DEYOUNG: Okay. I will --

CO-CHAIR LEAR: This particular site is a little bit too far along in the process --

MR. DEYOUNG: I understand that. I will send one along to you, Janet.

CO-CHAIR LEAR: Okay. Thank you. All right.

So ten minute break. Let's see, I have 8:36. So ten minutes.

(Thereupon there was a brief recess.)

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

CO-CHAIR LEAR: All right. We are at administrative business.

If you have any comments on the meeting minutes, please get those to Myrna or myself.

VI. FOCUS GROUP REPORTS

CO-CHAIR LEAR: We are at focus group reports. We'll jump down to technical. Paula, do you have anything to report?

MR. COFFEY: Technically.

CO-CHAIR HAYES: Technically speaking.

MS. TYGIELSKI: Not really. But I want you to know that I consider this meeting important enough that I'm not watching the DNC on TV.

CO-CHAIR HAYES: Yeah, neither am I.

CO-CHAIR LEAR: Thank you. All right. City report, Kathleen.

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

MS. DIOHEP: Sure. What, let's see. Big picture, one really important thing for everybody to know is we just published the draft of the City's updated General Plan on Monday.

For Mare Island it essentially assumes the Mare Island Specific Plan continues, except one of the things to know is in all of the modeling of the air quality and the traffic and all that detail, those are done again with 2016 data. So it was the nine million square feet, the development program that was allowed under the specific plan, but new traffic.

And some of the same key findings like traffic on Highway 37 is really bad now and it will be really bad in the future, so we're going to have to make findings of overriding consideration, some of those things carried forward.

We are, I think I came here last time just before the council was going to approve, they approved the exclusive negotiating rights with Faraday Future, and we're kind of intensely working that through right now.

What it appears is the project -- because I'm saying appears because the analysis hasn't been done yet -- the project that they're looking at is, fits within the Mare Island Specific Plan.

We're doing those traffic, air quality, all those kinds of technical studies to confirm that. And we hope to be coming forward with a lot more information in September, October this year, looking to try to get an approval by the end of the year for a disposition and development contract.

And that -- I should condition that more. That's subject to all those studies being done, all those findings being made, and the city council reviewing it, speaking to those who are obviously reading these minutes.

And so -- and that would be for what's called a disposition development agreement which is a very complicated real estate contract, and would have -- and it doesn't mean they immediately own the site, it means once they meet any number of hurdles they have the right to purchase the site.

So that's the short piece. I don't know if there's much else to update on.

MR. COFFEY: Kathy, I read an article recently about a company, and I thought it was the one that they're talking about as far as you guys are negotiating with, they said it was a Chinese backer who's funding basically the entire project, and that they were suspending, possibly suspending work on their north Las Vegas project because of funding.

And I was wondering if that was going to affect you, if it is even the same person?

MS. DIOHEP: It is the same company. They have pushed past that in Nevada and have started construction. And basically they had to put up bonding security.

It is -- at this point there is largely one funder. They plan to move to a broader funding strategy. It is not -- it's a United States company with a Chinese investment behind it.

Like I said, one of the key things on how we'd structure any agreement would be performance milestones which would include things like bonding, demonstrating you have the money and funds in place to build the infrastructure to do the work you need to do, so --

MR. COFFEY: The only reason I bring it up is because you're talking about all these things that are proceeding on, and I would just hate to see all these people going through all of these loops and all this kind of stuff and then the money's gone.

MS. DIOHEP: Well, we have a \$200,000 non-refundable deposit --

CO-CHAIR HAYES: Oh, nice.

Ms. DIOHEP: -- so for six months if this goes, we have that. They are paying for our consultant costs and our lawyers to do this work.

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MR. COFFEY: Okay.

MS. DIOHEP: If this goes away we'll end up knowing a whole lot more about this site, we'll have a lot more engineering studies, and we'll have gotten a lot more publicity.

But the goal is to write a contract that holds, that doesn't keep it off the market any longer than it needs to be and moves this forward as clearly as we can.

MR. COFFEY: Awesome.

CO-CHAIR HAYES: I guess my question along those lines, and I know this is environmental cleanup so, and we don't make decisions on reuse, but I am happy to see that the Navy's been so responsive in helping expedite the IR17 cleanup I would assume to, as part of your package, you know, just getting that property closer to being in your hands.

There have been a lot of investments made and DDA's in the past, like maybe fourteen of them, or to some stage, lots of developers come and gone on that property. And I'm just wondering what you're being told by people who are considering developing that property? You know, we have a master developer in the 4- or 500 other, you know, acres on the island, what's the impediment for people with that property? And how is this company going to be different, do you think? Do you speculate or --

MS. DIOHEP: Well, I think we did a full kind of analysis of that in January of '15 and there's stuff on the website that explains that there's challenges because of any number of things. I do -- we really do appreciate the Navy. I don't think you've accelerated, but you've kept the movement on. And IR17 is coming to its point of digging and hauling, which is exciting.

So the difference here is because it's one large use, you can plan for the infrastructure, and you can plan for the work, and they can do this as a one, a big project. Whereas because it's 150 acres to do all those roadways, all that infrastructure, it's really hard to face. And this was -- they were looking for an inner Bay Area, a greater Bay Area site, and there are not 150 acre sites on the water.

MR. COFFEY: No way.

MS. DIOHEP: So this was a compelling site from their perspective. So where the other users -- it's been a whole range of other users, and we have the analysis of that. Without a -- if somebody had an anchor user, a different type of anchor user, they'd have the same benefit of knowing what the user is going to be, knowing they're going to have an income. So it's a very big site to put a lot of infrastructure in on spec to not know what's coming. So I think that's the difference.

Full stop, it is a start-up entity. That's part of the reason we are doing all the due diligence, we're doing all this work. It's exciting. We have the Governor's office supporting this project. We have other things going. You know, we hope to keep moving.

If this doesn't come forward, we probably will be going back out to the real estate market to see what the next option is. I mean Alameda's gone through a lot of developers too.

MR. COFFEY: Uh-huh.

MS. DIOHEP: These are precious sites.

CO-CHAIR HAYES: That's a nice way to put it.

MR. COFFEY: Yeah.

CO-CHAIR LEAR: Thanks. Neal, can you give us the LMI update?

MR. SILER: So the things that we're focusing on right now is closing out a number of investigation areas.

We're trying to close out investigation area B2-2 and H2 which basically run from A Street down to Kansas, north south to Walnut to Azuar Drive. So we're trying to get that closed out. That's B2-2 and H2. And then we're also trying to get closed out Investigation Area D1.3 south, which is a small area that is to the -- had some issues that we had to look at along the former western shoreline.

And then after that we'd try to close out C-3.

But we're trying to get that closed out here within the next, all those within the next three to six months. And if that's, can do that, then that's 75 percent of the eastern early transfer parcel will be closed out.

So -- and then we're trying to work on other things, but I want them to concentrate on that so we get those things closed out and behind us, and then we'll go onto other things.

MS. DIOHEP: You know, I think we missed something. Going around, it just got executed that there's an amendment to the grant between the city and the Navy for remediation funds that roughly \$900,000 more is coming to help funding the eastern early transfer parcel.

MR. COFFEY: Oh, yeah.

MS. DIOHEP: That got through. It's a very short document that took a lot of negotiation, but it is nine hundred some thousand dollars, so that's more towards the remediation.

MR. COFFEY: Cool.

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

CO-CHAIR LEAR: Okay. So Weston update. I guess it's me tonight. So we have our growing shorter every time flyer from Weston.

MR. COFFEY: I'm waiting till it's down to a paragraph.

CO-CHAIR LEAR: He keeps making the font bigger.

MR. COFFEY: That's a good thing.

CO-CHAIR LEAR: All right. So for the western early transfer parcel, this is also on the Navy progress report too cause we want to take credit for this as well.

So the final record of decision for IR Site 05, Dredge Pond 7S, and Western Magazine Area was approved and signed by the regulatory agencies and the Navy. There was a public notice in the newspaper, as is required, announcing the approval of that document. And it is available for review from the DTSC website, if you haven't reviewed it already.

After all the removals that have already been done at the site, the final remedy is institutional controls. And we'll be moving forward with the land use control remedial design.

Weston continues O&M at the investigation area H1 containment.

Oh, and they will be performing the semiannual groundwater monitoring event in August.

So that's Weston.

c. Regulatory Agency Update (Elizabeth Wells [Regional Water Quality Control Board], and Jonathan Largent [Department of Toxic Substances Control])

CO-CHAIR LEAR: And now regulatory agency update. John.

Mr. LARGENT: Since I'm the only one.

CO-CHAIR LEAR: Yep.

MR. LARGENT: We are -- we provided comments back to the Navy on IR17, Building 503 ROD RAP, as well as the Remedial Design/Remedial Action Work Plan.

We've prepared a draft CEQA document, and we're waiting sort of for a finalized ROD/RAP on that site to initiate the public comment period on the cleanup.

And we're working on the south shore area TCRA and all sorts of other fun sites that keep me busy.

MR. COFFEY: Short and sweet.

VII. CO-CHAIR REPORT (Myrna Hayes [Community Co-Chair], and Janet Lear [Navy Co-Chair])

CO-CHAIR LEAR: Yep. Okay. So we're at co-chair's report. This is the Navy monthly progress report. This month there was some field work going on at a couple of PCB sites down in the south shore. We are down to, I believe, the last two sites, is that correct?

MR. SHIH: Yes.

CO-CHAIR LEAR: Last two PCB sites on the island?

MR. SHIH: Well, field work on the last two.

CO-CHAIR LEAR: Well, there are a couple of documents, but these are the last two that we haven't reached cleanup goals on; correct? Is that a correct statement?

MR. SHIH: Actually --

CO-CHAIR LEAR: Oh, no, I was all excited.

MR. SHIH: The field work for one of those two sites is complete, so it's actually only the field work for one site left that we're doing investigation.

CO-CHAIR HAYES: More exciting.

CO-CHAIR LEAR: Even better. Even better. Thank you.

And then as far as this first paragraph under document submittals is about the ROD that I just mentioned under Weston, and so we're both taking credit for that this month.

We submitted a document, it's the RAD Sampling and Analysis Plan, radiological Sampling and Analysis Plan for the Time Critical Removal Action at the South Shore Area.

And we did receive comments or concurrence from -- let's see -- we got concurrence on the Final ROD/RAP for IR05, as I mentioned. And we also received concurrence on the exception to sources of drinking water policy for south shore.

And, as Jonathan mentioned, we received comments for two of the IR17 documents. Very critical so that we can get those documents final and move to the field.

Still working on, we received comments from DTSC and the Water Board on the TCRA South Shore Area Work Plan. Still a lot of challenges there, but we are definitely moving forward.

And that's it for the Navy update.

Myrna, did you have --

CO-CHAIR HAYES: Well, I wanted to note for the record, on the Navy Monthly Progress Report, one thing that you've been doing over the years is posting a, used to be just aircraft carriers and regular old, you know, Navy vessels, but somewhere along the line the RAB members requested that these, that it have a Mare Island theme on this photo on the right-hand side.

So I'm just glancing at it today and noting that the U.S.S. Tang, SS306, was built at Mare Island, and it is one of the seven submarines built at Mare Island and lost at sea during World War II.

And our non-profit Mare Island Heritage Trust holds a memorial service on the third Sunday of every October to honor those seven vessels.

The Tang has an interesting story. It did have survivors and one of them was Admiral Richard O'Kane. And he went to a Japanese internment camp, prisoner of war camp. And he -- when the U.S. was able to get into that camp, he was first selected to be let go, -- it wasn't thought by the medical personnel who took a look at him that he would survive. But then people explained who he was, that he was the commander of the Tang, and he was one of six men who survived that it probably actually had a torpedo come around and shoot itself. But anyway, it was a pretty tragic thing.

But that vessel is also in that Japanese attack -- no, that's Japanese attack on that one. That vessel had the only known free ascent from a submarine, and the person lived, but then I think they went to the prison camp so it wasn't too good.

But anyway, this is a very famous, famous vessel, and Admiral O'Kane was certainly a very decorated person, including getting the Congressional Medal of Honor. So it's pretty cool that that's on there.

And then come to our service dockside at berth six now where the landing craft support gunboat has been moved recently.

Coming up is, at the Mare Island preserve is the Mare Fair and Fennel Festival the second weekend of August, August 13 and 14. So we'll have guided walks and sampling of fennel seasoned food. And we've just finished up our fennel pollen harvest for this year.

That's that.

And if anyone wants to see a pretty unusual piece of information that I've been able to acquire but I've been asked not to share it on the Internet for a few months while a final story is being written about it, but if anybody wants to look at some, as far as we know, never seen in this area, photos and maps from the July 9, 1917 explosion that was credited to a German saboteur in World War I at the ammunition depot. It killed the chief gunner Al MacKenzie and his wife Melvina and their two 12 and 8-year-old children Dorothy and Millie. I do have those photos. They're from the National Archive in Washington, D.C. and they're a joint Department of Justice

and Navy investigation report. So I'd be happy to show you those in a little bit if you want to see me afterwards.

So we just had a visitor to the preserve a couple of weeks ago was able to, who is writing a publishable report, so he doesn't want us interfering with that publishing. But a pretty special person. And pretty coincidental that he arrived just exactly a week before the 99th anniversary of the explosion. And from out of the country far, far away. So it was a pretty coincidental and pretty interesting story.

So thank you.

CO-CHAIR LEAR: Okay. Last --

CO-CHAIR HAYES: Oh, I have one other thing. I did not open this package, and I refuse to open this package until my agenda comes full size. I've asked about this repeatedly. And I don't ever want to receive my agenda packet folded in half. I don't know if you've ever filed folders or tried to look in them, it's very hard to have them all folded up like that; okay?

So Navy, your contractor, will you explicitly explain that at least I do not want to receive my packets folded in half. It's not the way I read things; okay? Because I've asked directly and it doesn't work, so will you please tell them?

CO-CHAIR LEAR: Certainly.

CO-CHAIR HAYES: Thank you.

Ms. TYGIELSKI: Just a comment. Do I have this on?

MR. COFFEY: Yeah.

MS. TYGIELSKI: I also was kind of P.O.'d by that particular package, it was hard to get into.

CO-CHAIR LEAR: Okay.

CO-CHAIR HAYES: You don't get 'em in the mail, we do.

CO-CHAIR LEAR: All right. Last public comment period.

(NO RESPONSE.)

CO-CHAIR LEAR: All right. Thank you for coming, everyone. Drive safely.

(Thereupon the proceedings ended at 9:08 p.m.)

List of Handouts:

- Presentation Handout Remedial Action Excavation for Installation Restoration Site 17 and Building 503 Area
- Installation Restoration Site 17 and Building 503 Area Figures
- Presentation Handout Proposed Remedial Actions at Cooling Water Loop-Intake Arm Area Investigation Area C1
- Weston Solutions Mare Island Update
- Navy Monthly Progress Report July 2016

Attachment 1. Presentation Handout – Remedial Action Excavation for Installation Restoration Site 17 and Building 503 Area



Remedial Action - Excavation Installation Restoration Site 17 (IR17) and Building 503 Area

Former Mare Island Naval Shipyard Vallejo, California

7/28/2016

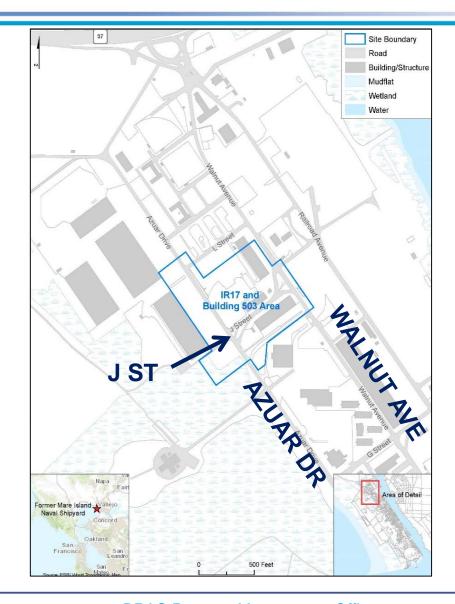
Presentation Overview



- -Site Location and Background
- Investigation History
- -Remedial Action Excavation Details
 - Excavation Areas
 - Transportation and Traffic Controls
 - Best Management Practices
 - Schedule

SITE LOCATION





Site Background



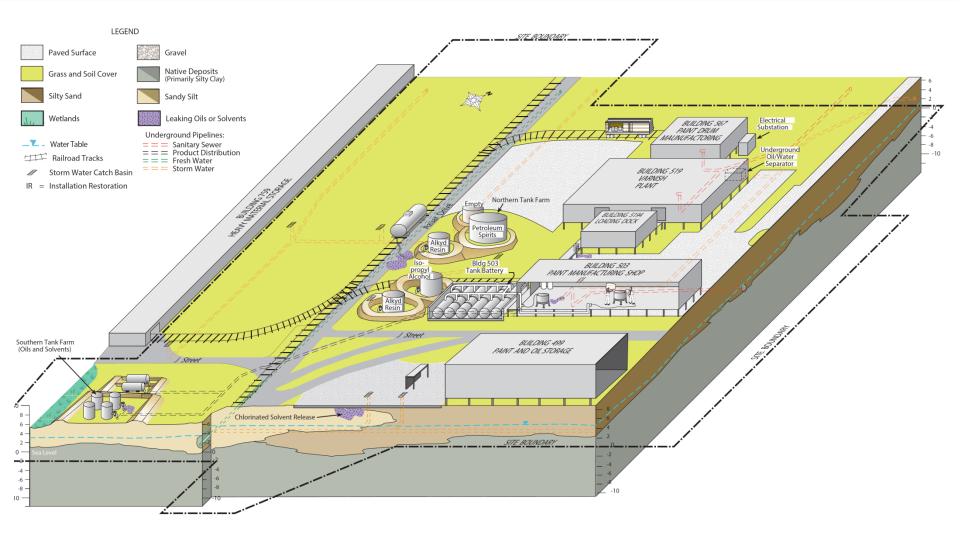
- •IR17 and Building 503 Area served as a former paint manufacturing facility
- Operated from the 1940s to the mid-1950s
- Designated for commercial/industrial reuse





Site Background





Conceptual Site Model – Late 1940s Features

Investigation History



Year	Investigation/Removal Action Name
1985	Verification Study at Buildings 519 and 567
1986	Preliminary Surface Contamination Investigation at Buildings 519 and 567
1992	Phase I Remedial Investigation at IR17
1995	Basewide Groundwater Monitoring Program
1996	Phase II Remedial Investigation at IR17
1996	Baseline Human Health Risk Assessment at IR17
1997	Group II/III Accelerated Study
1998	Basewide Polychlorinated Biphenyl Confirmation Sampling
1999	Confirmation and Characterization Sampling for the IR17 Removal Action and Product Distribution Pipeline Excavation
1999	Chemical Oxidation Injection Treatability Study
2002	Groundwater Data Gaps Investigation at the IR17 and Building 503 Area
2002	Onshore Ecological Risk Assessment
2006	Remedial Investigation for the IR17 and Building 503 Area
2006	Feasibility Study for the IR17 and Building 503 Area
2009	Additional Soil, Groundwater, and Soil Gas Sampling Investigation
2010	Non-time Critical Removal Action for the IR17 and Building 503 Area
2012	Post-Removal Monitoring at the IR17 and Building 503 Area
2012	Non-Tidal Wetland Investigation
2013	Upland Chlorinated Solvents Investigation at the IR17 and Building 503 Area
2013	Polychlorinated Biphenyl Site Closure Report for Building 499
2014	Feasibility Study Addendum for the IR17 and Building 503

CURRENT DOCUMENTS



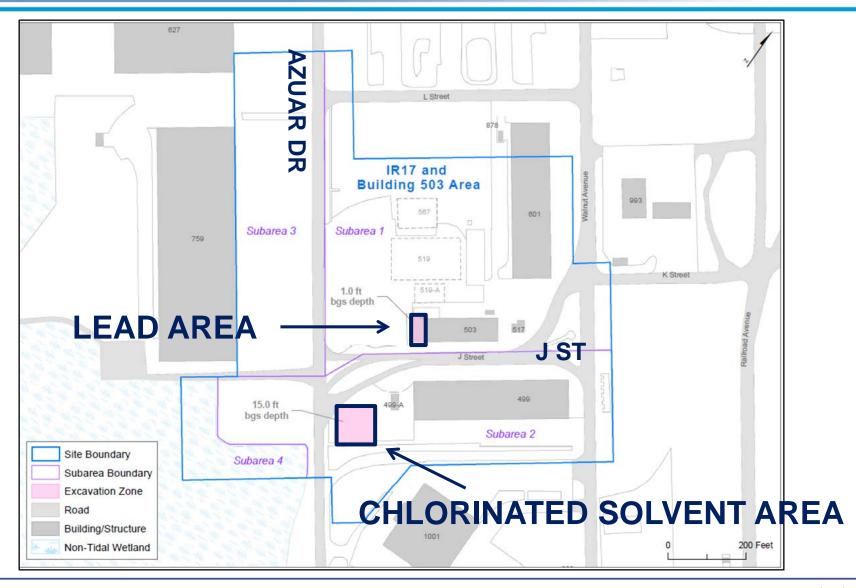
•MAY 2015 PROPOSED PLAN / DRAFT REMEDIAL ACTION PLAN

•2016 RECORD OF DECISION / FINAL REMEDIAL ACTION PLAN

•2016 REMEDIAL DESIGN / REMEDIAL ACTION WORK PLAN

Remedial Action – Excavation Areas





Lead Beneath Building 503

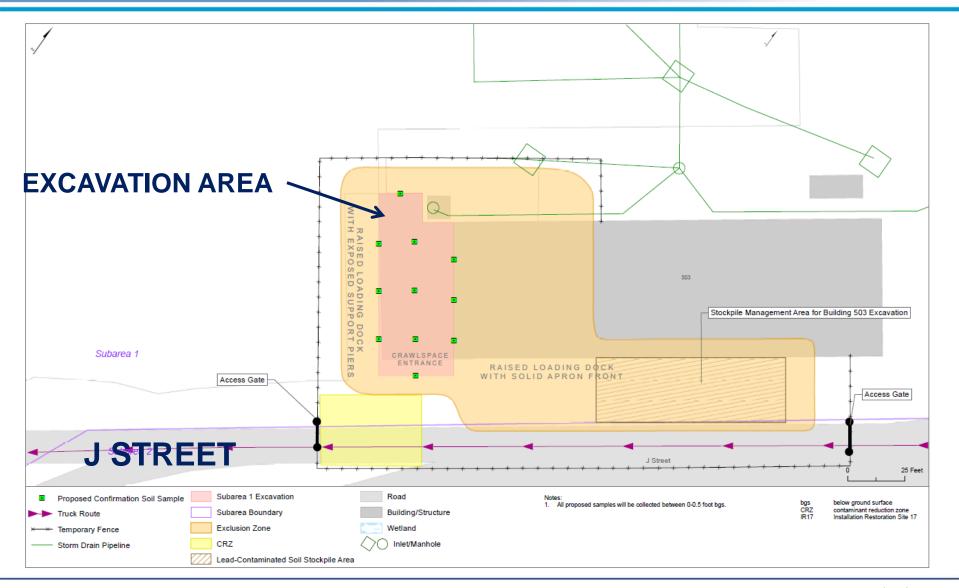


Excavation of soil with elevated lead beneath Building 503

- -30-feet x 78-feet x 1-foot deep
- -82 cubic yards/ 110 tons/ 5 truck loads
- –Excavate from underneath building by hand (limited access)
- -Collect confirmation soil samples (remediation goal = 346 milligrams per kilogram)
- -Backfill with controlled low strength material (concrete slurry)

Lead Beneath Building 503





Chlorinated Solvent Area South of J Street

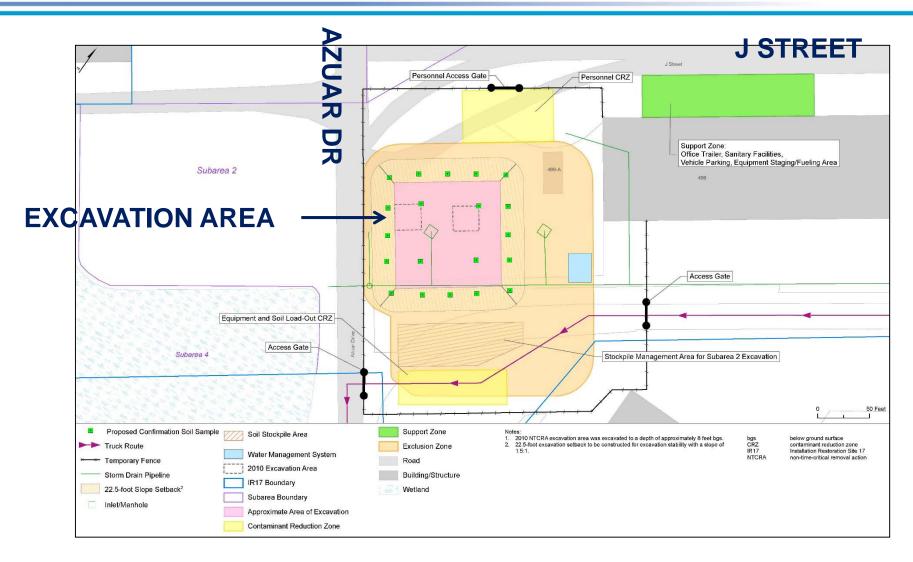


Excavation of Trichloroethene Impacted Soil

- -100-feet x 100-feet x 15-feet deep
- -1.5:1 (horizontal to vertical) slopes for stability
- –Approx. 8,243 bank cubic yards/ 11,128 tons/ 464 truck loads
- -Collect confirmation soil samples (comparison value of 6,000 micrograms per kilogram for Trichloroethene in soil)
- -Backfill with imported fill and restore asphalt surfaces
- -Future soil gas monitoring to determine if soil gas remediation goal of 7,081 micrograms per cubic meter is met

Chlorinated Solvent Area Excavation





Transportation

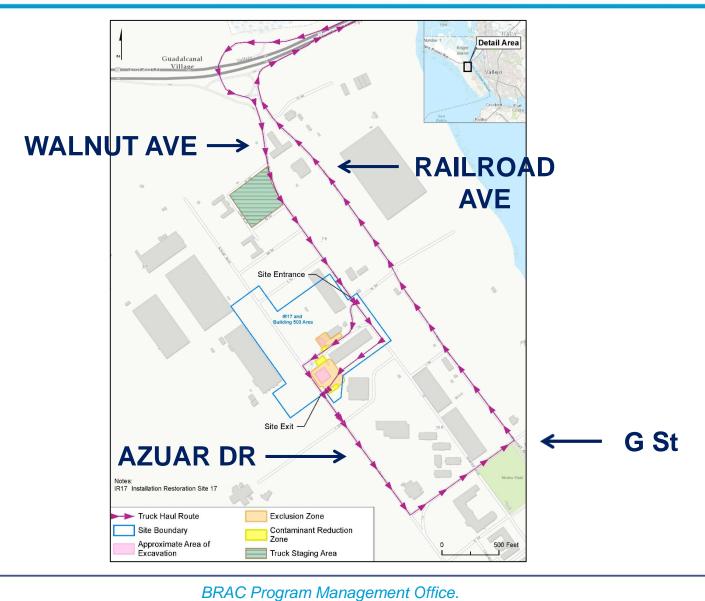


- Approximately 940 truck loads of waste soil and backfill material
- Up to 60 truck loads per day (16 days of trucking)



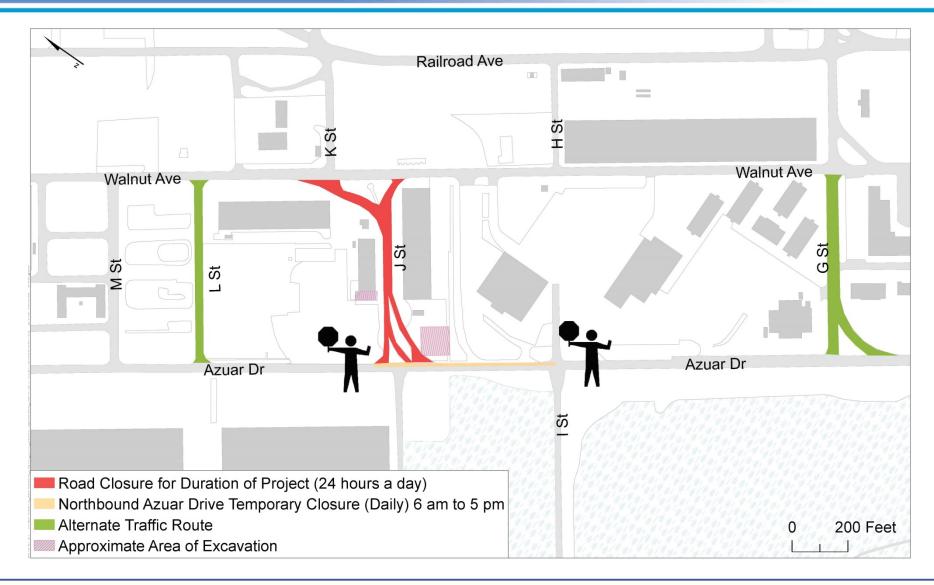
Transportation





Traffic Controls





Best Management Practices



- Stockpile Management
- Dust Suppression
- Stormwater Controls





Remedial Design/Remedial Action Schedule



Milestone	Timeline
Draft Remedial Design/Remedial Action Work Plan	June 2016
Final Remedial Design/Remedial Action Work Plan	September 2016
Remedial Action Field Work	October - December 2016
Draft Interim Remedial Action Completion Report	March 2017
Final Interim Remedial Action Completion Report	August 2017

Attachment 2. Installation Restoration Site 17 and Building 503 Area Figures

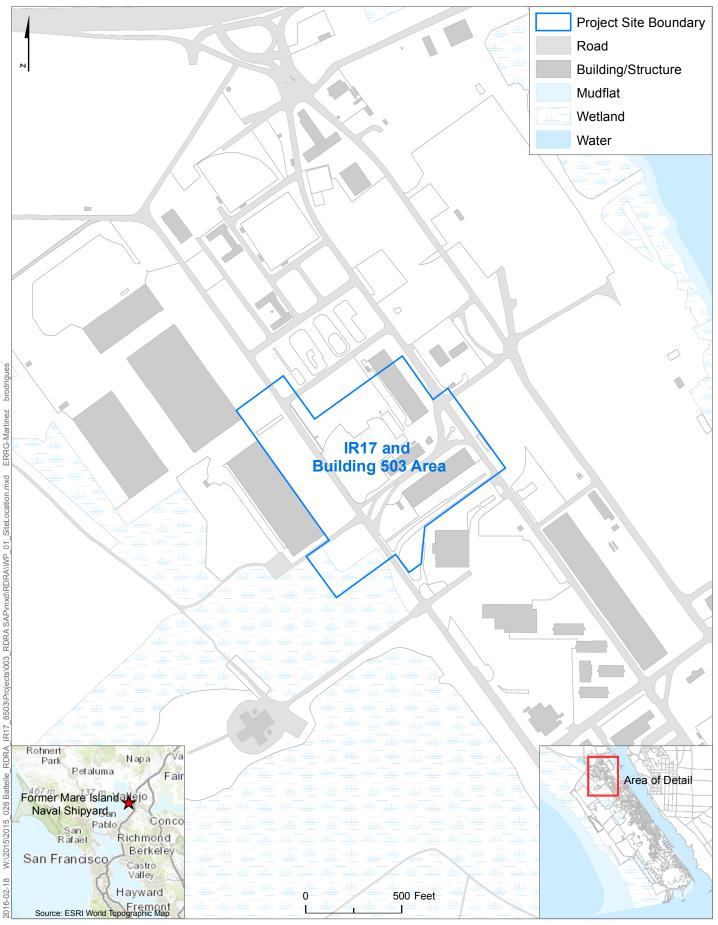
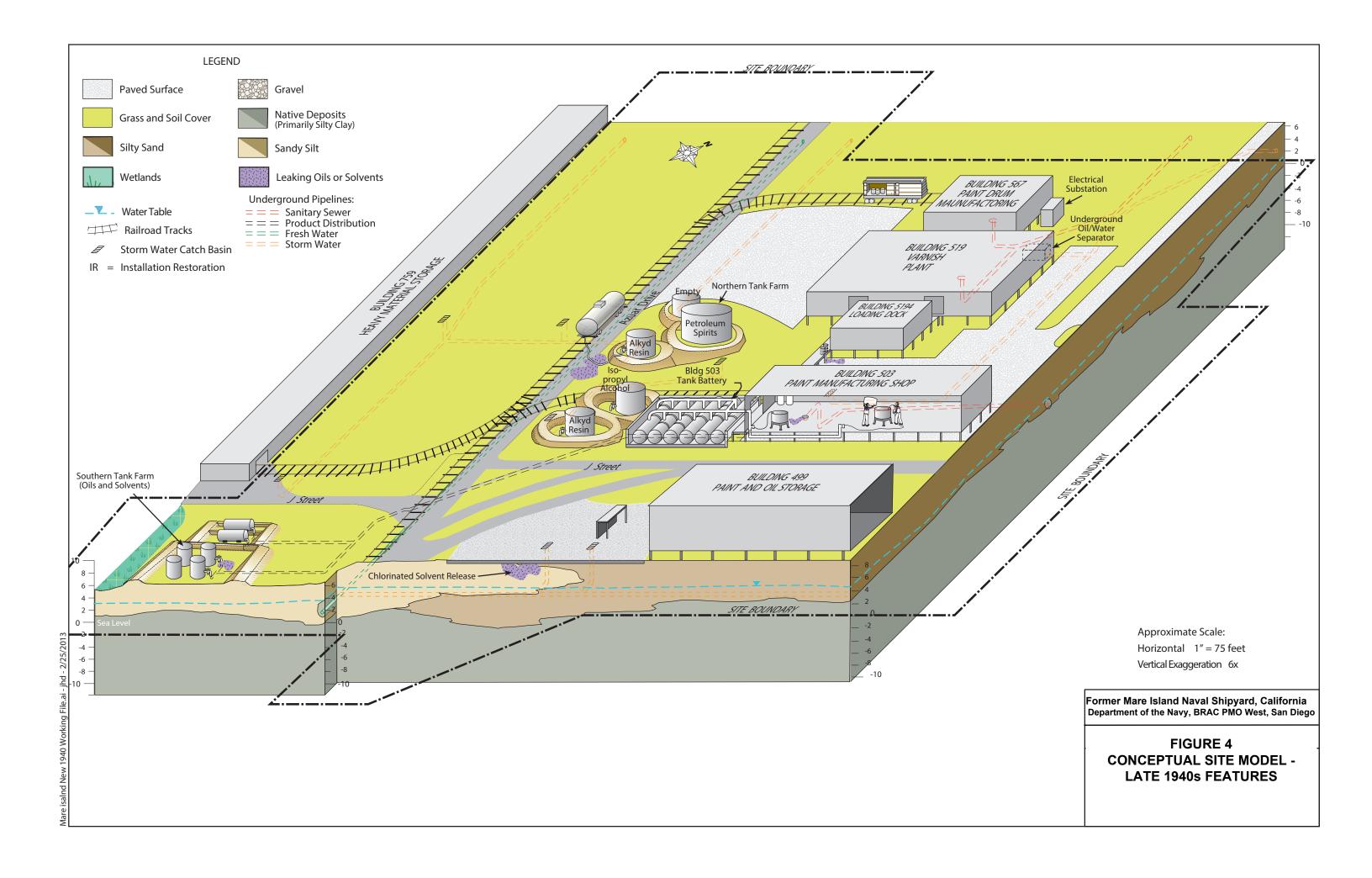


Figure 1. Site Location and Vicinity Map
Remedial Design/Remedial Action at the IR17 and Building 503 Area
Former Mare Island Naval Shipyard, Vallejo, California

Notes: IR17 Installation Restoration Site 17





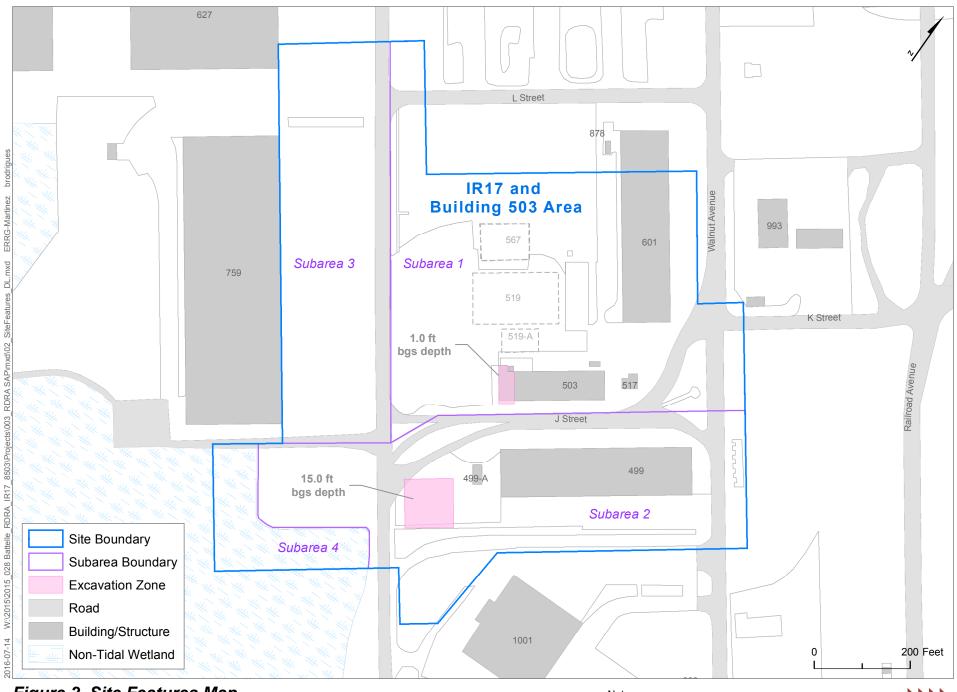


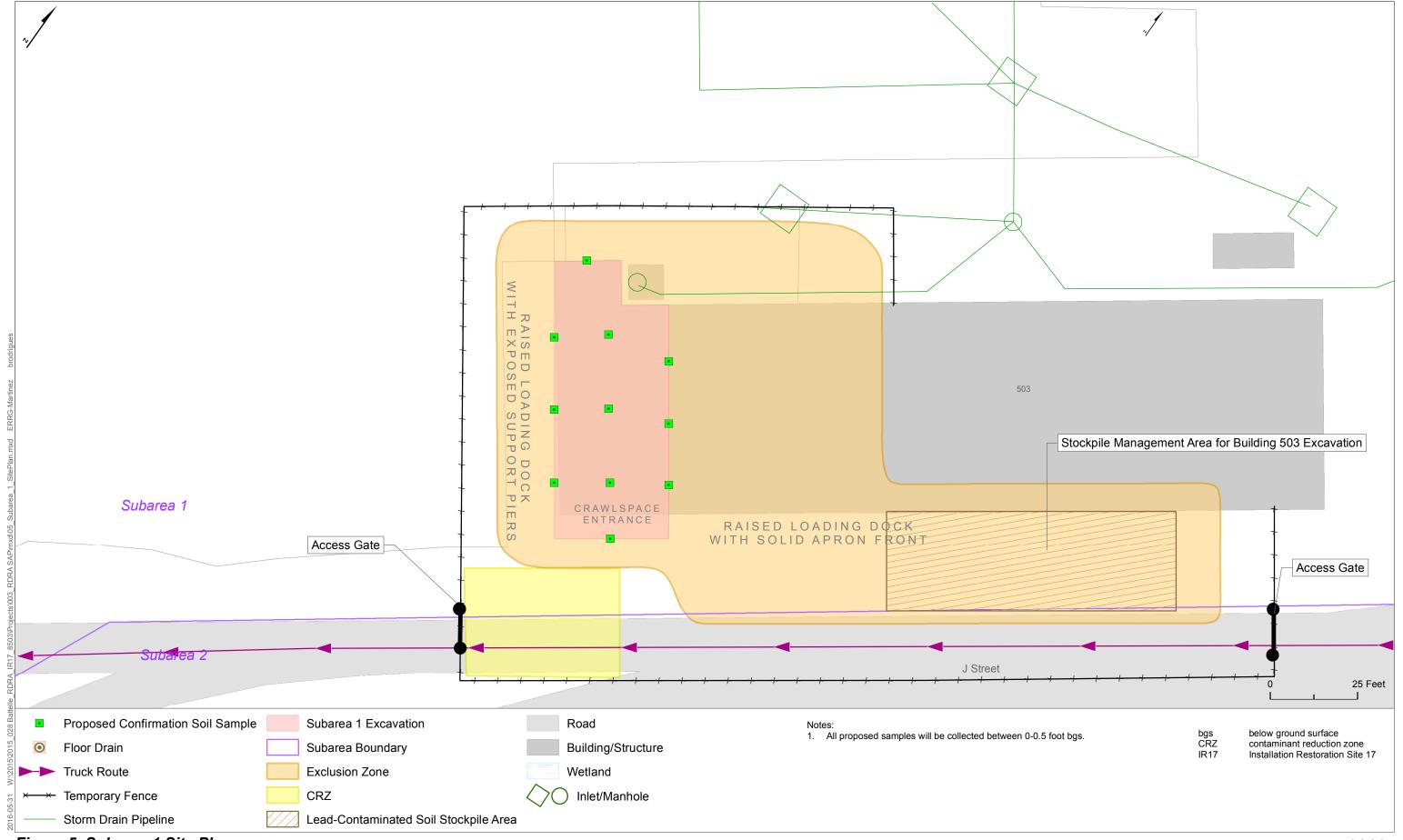
Figure 2. Site Features Map
Remedial Design/Remedial Action at IR17 and Building 503 Area
Former Mare Island Naval Shipyard, Vallejo, California

Notes: bgs ft

IR17

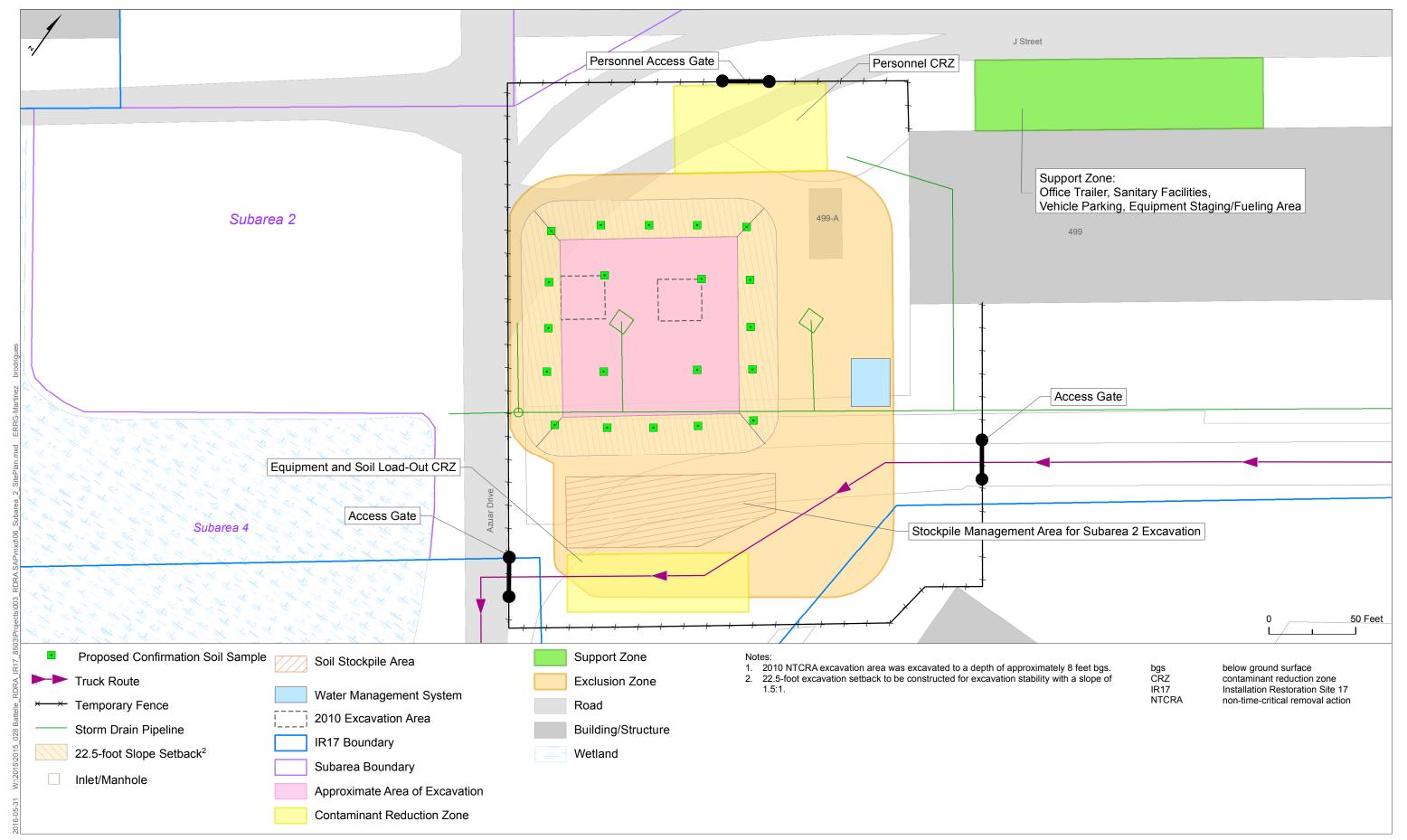
below ground surface feet Installation Restoration Site 17





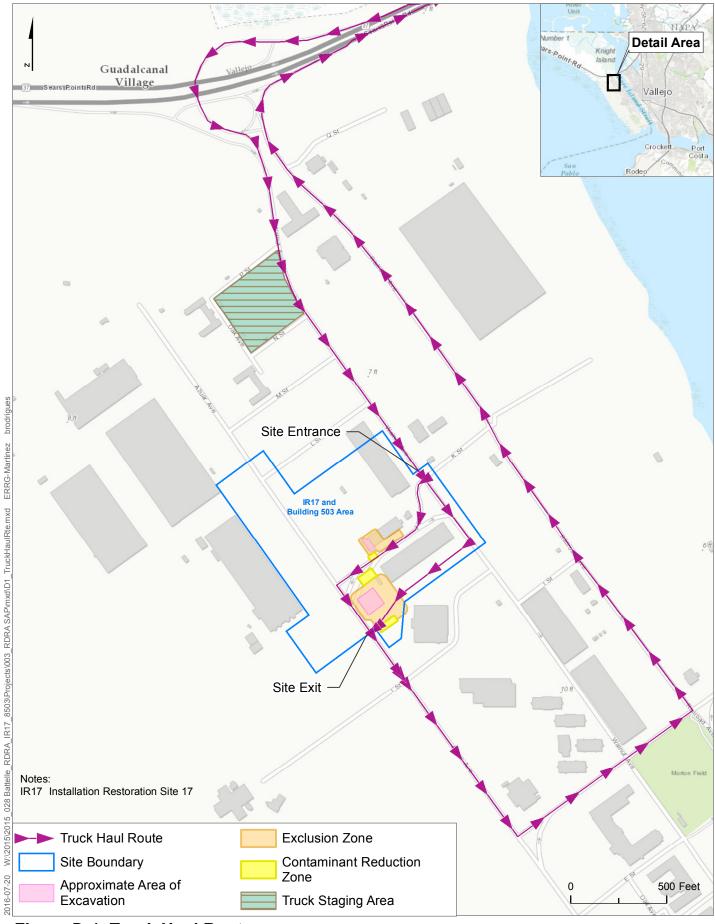


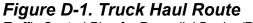




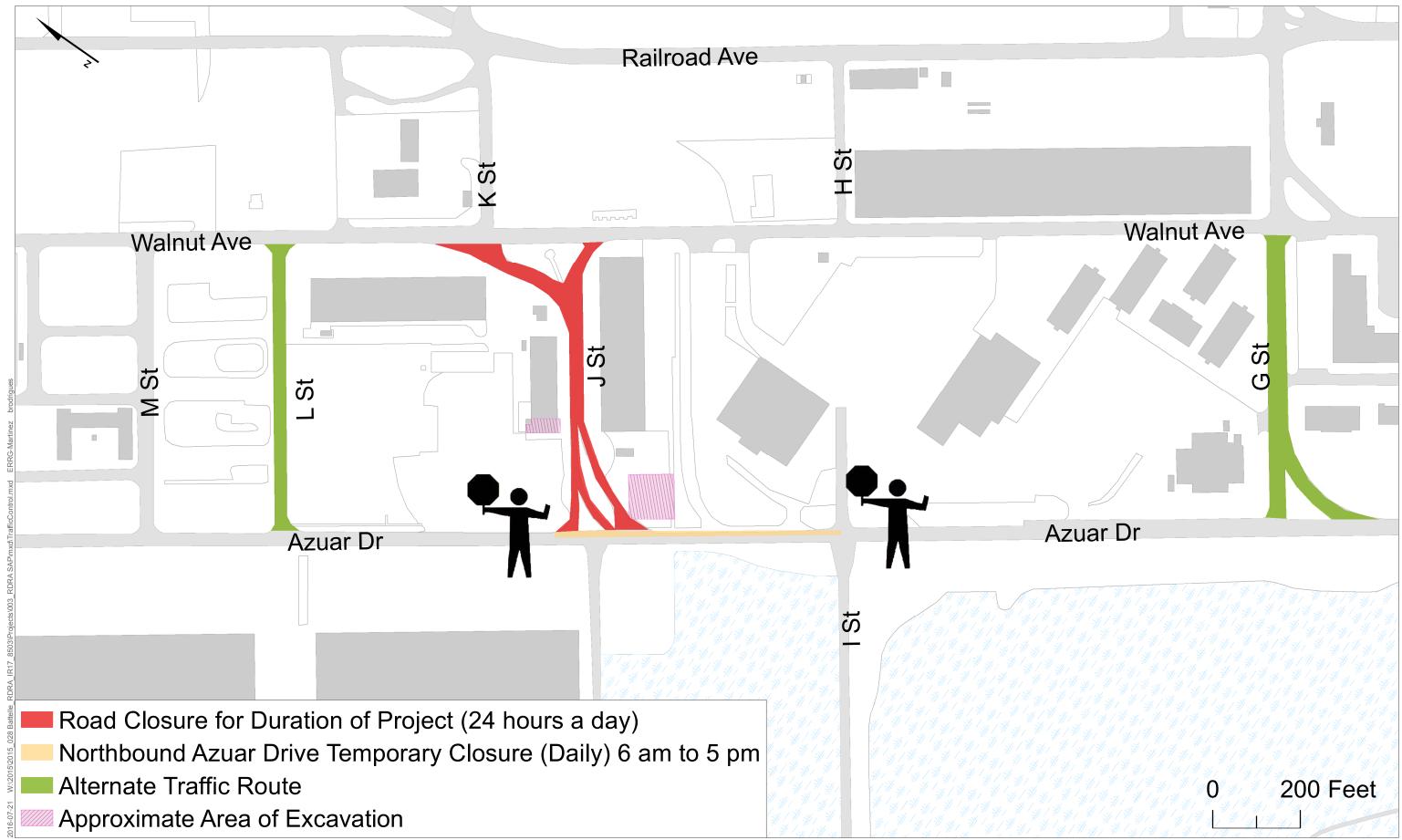














Attachment 3. Presentation Handout – Proposed Remedial Actions at Cooling Water Loop-Intake Arm Area Investigation Area C1

Proposed Remedial Actions at Cooling Water Loop-Intake Arm Area

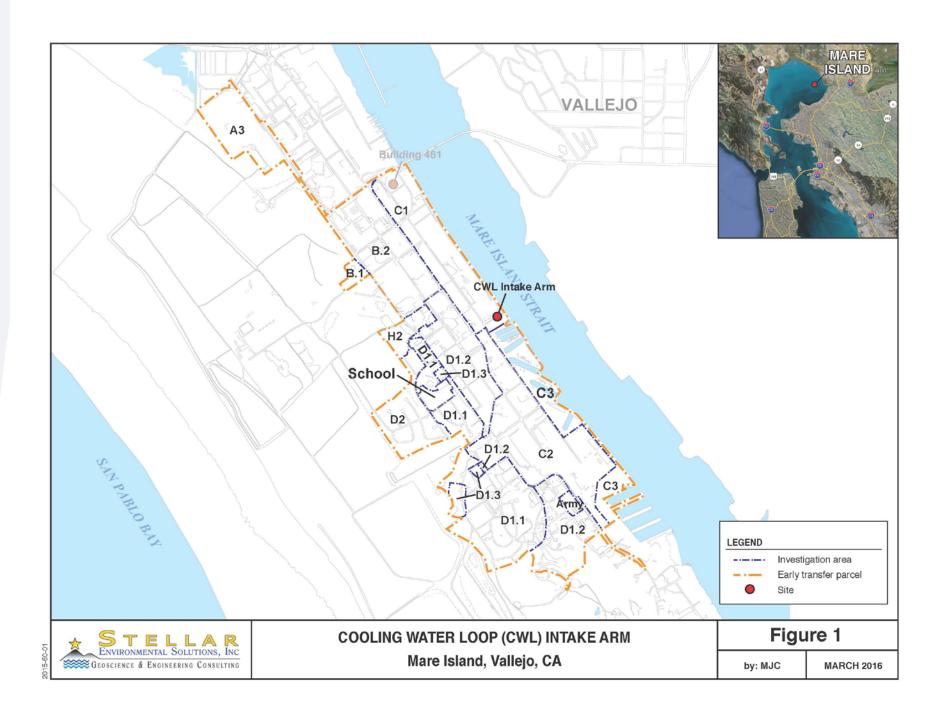
Investigation Area C1

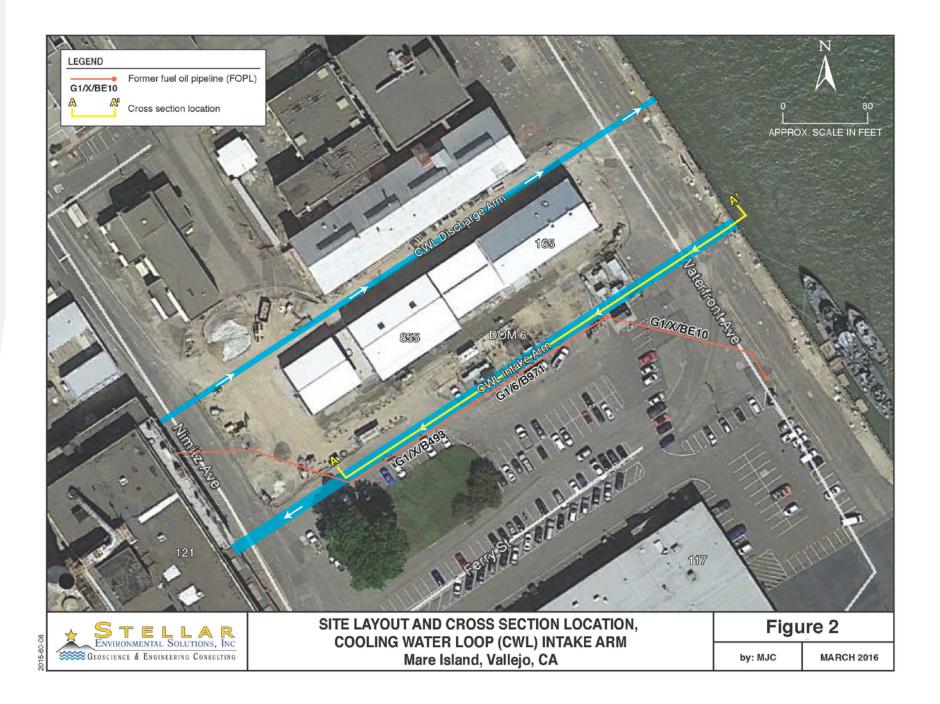
Presented to Mare Island Restoration Advisory Board

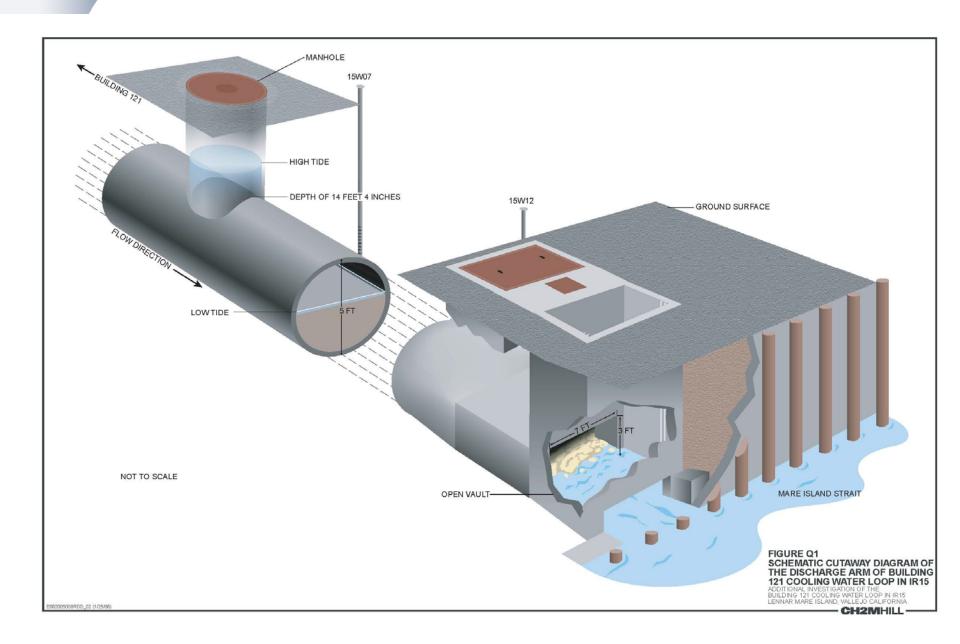
July 28, 2016

Discussion Topics

- Cooling Water Loop Description
- Cooling Water Loop-Intake Arm Additional Recent Investigations
- Remedial Options Considered and Evaluated
- Recommended Remedial Option
- Questions







Cooling Water Loop-Intake Arm (CWL-IA) – Description (Continued)



Mare Island Strait

Valve in Open Position

Cooling Water Loop – Description

- Located in Investigation Area C1
- A System to Provide Cooling Water for the Former Base Power Plant at Building 121
- Constructed in the 1920s
 - Tunneled Through Bedrock (Sandstone, Siltstone, Claystone) and Constructed / Tunneled in Unconsolidated Fill Materials
 - Intake Arm Two Parallel 48-Inch Diameter Conduits
 - ✓ Intake Valves Located at Eastern Terminus (Strait Inlet) at Ground Surface
 - ✓ Access At Termini and at Two Manways
 - ✓ Slopes Towards Building 121
 - Depth at Strait 14 feet (below ground surface) bgs
 - ❖ Depth at Building 121 21 feet bgs
 - Pumps Located in Building 121
 - Discharge Arm One 60-Inch Diameter Conduit
 - ✓ Slopes Toward Mare Island Strait
 - ✓ No Discharge Pumps
 - Constructed of Various Materials Concrete, Wood, Brick, Metal
 - Constructed in Various Forms Circular, Rectangular, Octagonal

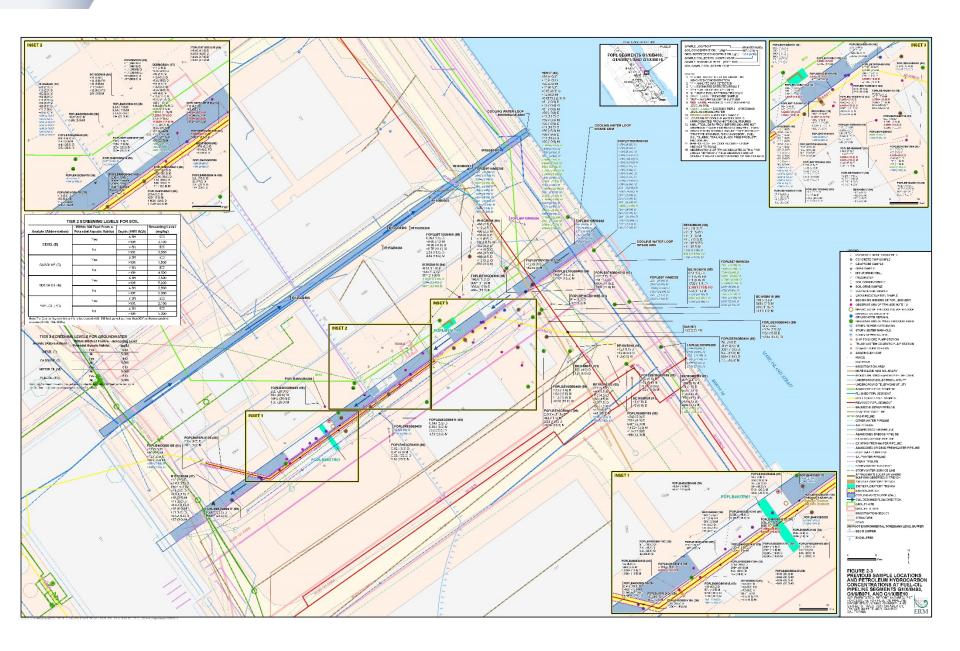
Cooling Water Loop – Description (Continued)

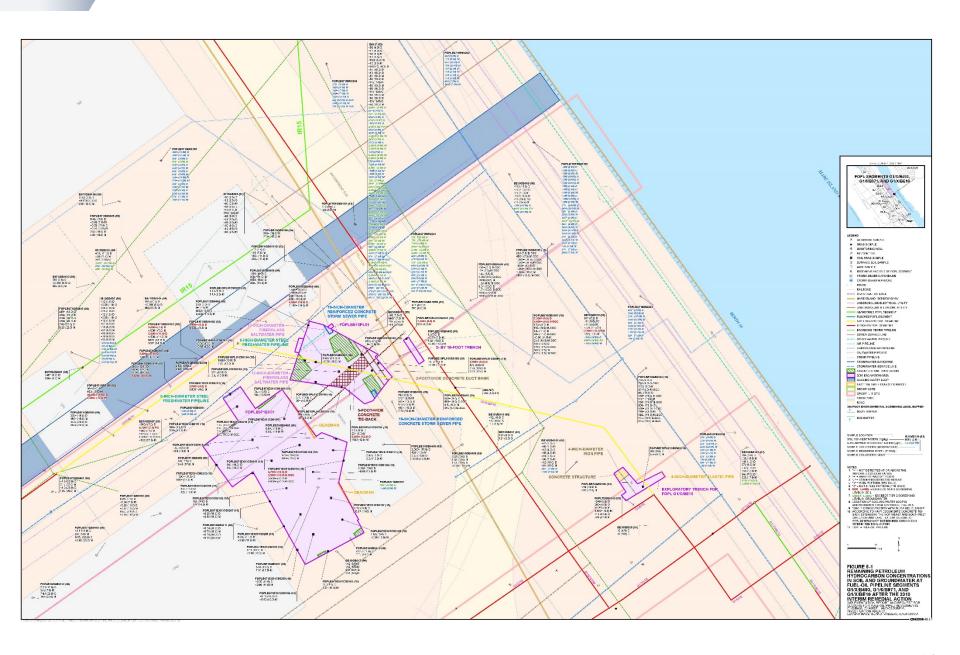
Other Environmental Sites in Area

- ➤ Fuel-Oil Pipeline (FOPL) Segments Building 493/971 FOPL Site
 - ✓ G1/X/B493, G1/6/B971 and G1/X/BE10
 - ✓ FOPL Segments G1/X/B493 and G1/6/B971 Directly Overlie Cooling Water Loop-Intake Arm
 - ✓ Buried in a Concrete Conduit at a Depth of 4 Feet bgs
 - ✓ All Have Been Removed or Were Never Encountered
 - ✓ Investigations and Remedial Actions 1991 2010
 - Numerous Soil and Groundwater Samples Collected
 - ✓ Total Petroleum Hydrocarbons as Diesel (TPHd) and Motor Oil (TPHmo) are Contaminants of Concern
 - ✓ Soil Removal Action Performed in 2010
 - ✓ In November 2014, Regulatory Agencies Concurred that No Additional Investigation and/or Remediation Necessary

Domestic Pump Station No. 6 (DOM-6)

- ✓ Constructed in 1959
- ✓ Sanitary Sewer Pump Station
- ✓ Located Approximately 5 feet North of Cooling Water Loop-Intake Arm
- ✓ Depth to Base of Wet Well is Approximately 20 feet
- ✓ Investigated in 1997, 2010 and 2011
 - Soil, Groundwater and Soil Gas Samples Collected
- ✓ TPHd and TPHmo are Contaminants of Concern
- ✓ TPHd and TPHmo Encountered Approximately 10 feet Below FOPL Segments
- ✓ Contamination Concentrated between 14 and 18 feet bgs





Cooling Water Loop-Intake Arm - Additional Recent Investigations

Sampling of Sediment and Water in CWL-IA

- Two Manways Provide Access to CWL-IA
- Collected Both Sediment and Water Samples
- Samples Analyzed for TPHd and TPHmo
- Sediment Sample Results
 - ✓ Northern Intake Pipeline 50,000 mg/kg TPHd, 46,000 mg/kg TPHmo
 - ✓ Southern Intake Pipeline 260 mg/kg TPHd, 190 mg/kg TPHmo
- Water Sample Results
 - ✓ No Sheen on Water Surface in Either Intake Pipeline
 - ✓ Northern Intake Pipeline 250 µg/L TPHd, <250 µg/L TPHmo
 - ✓ Southern Intake Pipeline < 50 µg/L TPHd, <250 µg/L TPHmo

Sampling of Groundwater Monitoring Wells Near Strait

- Most Recent Sampling Occurred in 2010
- Samples Analyzed for TPHd and TPHmo
- Monitoring Well Sample Results
 - ✓ Well 15W17 270 µg/L TPHd, <250 µg/L TPHmo</p>
 - ✓ Well FOPLWTRFMW0100 58 µg/L TPHd, <250 µg/L TPHmo</p>

CWL-IA – Recent Additional Investigations (Continued)



View Down Southern Manway

CWL-IA – Recent Additional Investigations (Continued)

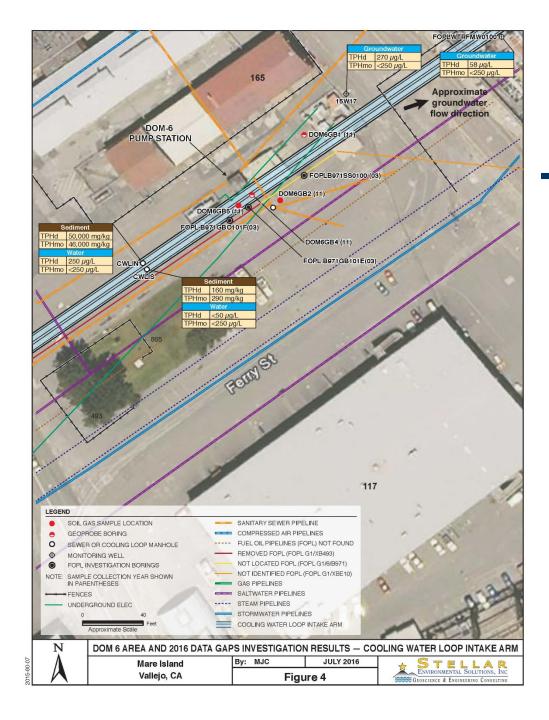


Water Sample Collection with Bailer

CWL-IA – Recent Additional Investigations (Continued)



Sediment Collected from Southern CWL-IA Pipeline



CWL-IA – Recent Additional Investigations (Continued)

CWL-IA – Remedial Options Considered and Evaluated

Alternatives Considered and Evaluated

- No Action Provides a Baseline
- Natural Attenuation with Groundwater Monitoring
- Sealing CWL-IA Access Points Western and Eastern Termini and Manways
- Removal of Contaminated Sediment from CWL-IA with Potential Future Remediation Activities
- Complete Excavation of the CWL-IA

Alternatives Still Under Consideration

- Removal of Contaminated Sediment from CWL-IA with Potential Future Additional Remediation
- Sealing CWL-IA Access Points Western and Eastern Termini and Manways

CWL-IA – Remedial Option Evaluation (Continued)

No Action

- Provides a Baseline
- ➤ No Provisions to Limit Exposure
- TPHd and TPHmo Would Continue to Exceed Cleanup Goals
- Nothing to Implement
- No Costs, Effort, Services, Supplies or Technology Required
- Would Not Meet Regulatory Requirements
- Would Not Close the Site

Natural Attenuation with Groundwater Monitoring

- > TPHd and TPHmo Would Continue to Exceed Cleanup Goals
- > TPHd and TPHmo Would Degrade with Time May Take a Long Time
- Minor Implementation Issues
- Relative Low Costs Would be Incurred Groundwater Monitoring
- May Not Meet Regulatory Requirements
- May Not Close the Site

CWL-IA – Remedial Option Evaluation (Continued)

Manway and Termini Sealing

- Exposure Would be Prevented
- > TPHd and TPHmo Would Continue to Exceed Cleanup Goals
- Moderate Costs Initially, High Potential Costs Over Time
- Requires Site-Specific Land Use Covenant (LUC), Operation and Maintenance Plan and Agreement and Financial Assurance
- Could Meet Regulatory Requirements
- Regulatory Agencies Would Conditionally Close the Site with LUC Execution, Recordation and Implementation
- Administration of LUC Over Time Would be Required

Sediment Removal

- TPHd and TPHmo Would be Removed
- Transport and Disposal of Material Offsite
- Groundwater Monitoring
- Higher Costs Incurred
- Limited Area Disruption
- Would Meet Regulatory Requirements
- Would Close the Site

CWL-IA – Remedial Option Evaluation (Continued)

Excavation and Removal of CWL-IA

- Complete Removal of TPHd and TPHmo Contamination
- > TPHd and TPHmo Would Meet Cleanup Goals
- High Cost
- Difficult to Implement
- Complete Disruption of Area
- Would Meet Regulatory Requirements
- Would Close the Site

CWL-IA – Recommended Remedial Option

Removal of Sediment from CWL-IA Northern Pipeline

- Place Temporary Plugs or Close and Temporarily Seal Valves at Strait
- Use Jetting / Vacuum Truck to Remove Sediment from Northern Pipeline
- Transfer Sediment Removed to Waste Bins for Offsite Disposal
- Inspect the Pipeline Periodically to See if Contamination Persists
- Groundwater Monitoring
- Continue to Inspect Conditions at Manways and Strait Terminus

Additional Remedial Activities

➤ DOM-6 – *In-Situ* Bioremediation or Other Appropriate Remedial Option

Potential Future Remedial Activities

- Targeted In-Situ Remediation Along CWL-IA Exterior
- Sealing the Termini and Manways
 - ✓ Site-Specific Engineering Control LUC
 - ✓ Site-Specific Operation and Maintenance Plan
 - Inspections and Five-Year Reviews
 - Periodic Repairs to Seals
 - ✓ Operation and Maintenance Agreement
 - ✓ Financial Assurance

CWL-IA – **Jetting / Vacuum Operation**



Questions?

Acronyms and Abbreviations

- µg/L Micrograms per Liter
- bgs below ground surface
- CWL-IA Cooling Water Loop-Intake Arm
- DOM Domestic Pump Station
- FOPL Fuel-oil Pipeline
- LUC Land Use Covenant
- mg/kg Milligrams per kilogram
- TPHd Total Petroleum Hydrocarbons as Diesel
- TPHmo Total Petroleum Hydrocarbons as Motor Oil

Attachment 4.	Weston Solutions Mare Island Update



Mare Island RAB Update July 2016

WESTERN EARLY TRANSFER PARCEL DOCUMENT STATUS

The Final Record of Decision/Remedial Action Plan for Installation Restoration Site 05, Dredge Pond 7S, and the Western Magazine Area was approved by DTSC and the Water Board this month. A public notice has been provided in the Vallejo Times Herald this week announcing approval of the Final RAP/ROD. A copy of the Final RAP/ROD is available at the JFK Library and is also available on the DTSC web site:

http://www.envirostor.dtsc.ca.gov/public/ profile_report.asp?global_id=48970002&site_ id=2004894

The following document is under review by the Navy:

 Remedial Design for Installation Restoration Site 05, Dredge Pond 7S, and the Western Magazine Area (to address land use controls and implementation)

INVESTIGATION AREA H1

WESTON continues operations and maintenance activities of the 72-acre IA-H1 Containment Area cap and perimeter groundwater collection trench system. The second semi-annual groundwater monitoring event for 2016 will be perfored in August which includes sampling of 29 wells.

Attachment 5. Navy Monthly Progress Report July 2016

Navy Monthly Progress Report



Former Mare Island Naval Shipyard

July 28, 2016



USS Tang (SS-306), Mare Island, December 1943

1.0 INTRODUCTION

The Department of the Navy (Navy) prepared this monthly progress report (MPR) to discuss environmental cleanup at the former Mare Island Naval Shipyard (MINS) in Vallejo, California. This MPR does not discuss cleanup work by the City of Vallejo or its developers, Lennar Mare Island and Weston Solutions, through the Environmental Services Cooperative Agreements (ESCA). The work completed through those agreements this month is reported separately. This MPR discusses progress made during the reporting period from July 1, 2016 through July 28, 2016. The information provided in this report includes updates to fieldwork and removal actions, document submittals, the progress of regulatory reviews, issues associated with Navy environmental programs, and Base Realignment and Closure (BRAC) Cleanup Team (BCT) and Restoration Advisory Board (RAB) meetings.

2.0 FIELDWORK, REMOVAL ACTIONS AND UPCOMING EVENTS

During the month of July 2016, the Navy performed fieldwork at Investigation Area F1.

Investigation Area F1 (Buildings A71 and A142)

On July 27 and 28, the Navy conducted fieldwork as part of an ongoing cleanup process for Polychlorinated Biphenyls (PCBs) at Building A71 and Building A142. PCB-impacted concrete was removed and concrete verification samples were collected at Building A71. Verification samples collected from an excavation area at Building A142 verified remediation completion and the excavation area was backfilled with a concrete slurry.

3.0 DOCUMENT SUBMITTALS AND PROGRESS OF REGULATORY REVIEW

The Final Record of Decision/Remedial Action Plan (ROD/RAP) for Installation Restoration Site 05 (IR05), Dredge Pond 7S (DP7S), and Western Magazine Area (WMA) sites at the former MINS was signed by the Navy on June 28, 2016; Department of Toxic Substances Control (DTSC) on July 6, 2016; and San Francisco Bay Regional Water Quality Control Board (Regional Water Board) on July 7, 2016. The Public Notice announcing the signing of the ROD/RAP was published in the Vallejo Times Herald for 5 days. The remedy includes land use controls to prohibit ground disturbance and sensitive land uses.

The Navy also submitted the following document during the reporting period:

 Draft Radiological Sampling and Analysis Plan Munitions Time-Critical Removal Action (TCRA), South Shore Area (UXO 7) Shoreline

The Navy received comments or concurrence from regulatory agencies on the following documents during the reporting period:

- Concurrence received from the DTSC and Regional Water Board on the Final ROD/RAP for IR05, DP7S, and WMA
- Concurrence received from the Regional Water Board on the Exception to Sources of Drinking Water Policy, Shallow Groundwater at the South Shore Area

3.0 DOCUMENT SUBMITTALS AND PROGRESS OF REGULATORY REVIEW (continued)

- Comments received from the Regional Water Board on the Draft Remedial Design/Remedial Action Work Plan for Installation Restoration Site 17 and Building 503 Area
- Comments received from the Regional Water Board on the Draft Final ROD for Installation Restoration Site 17 and Building 503 Area
- Comments received from the DTSC and Regional Water Board on the Draft Munitions TCRA Work Plan, South Shore Area (UXO 7) Shoreline

4.0 REGULATORY REVIEW: YEAR-TO-DATE PROGRESS

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

Number of Documents Submitted by the Navy	14
Number of DTSC Comments Received by the Navy	14
Number of Regional Water Board Comments Received by the Navy	
Number of EPA Comments Received by the Navy	2

BCT meetings are held regularly with the Navy, DTSC, Regional Water Board, and U.S. Environmental Protection Agency (EPA) to discuss the progress of environmental cleanup at MINS. The next BCT meeting will be held on September 29, 2016.

NAVY CONTACT INFORMATION

Janet Lear

BRAC Environmental Coordinator E-mail: janet.lear@navy.mil Local Telephone: (707) 562-3104 San Diego Telephone: (619) 524-1924 San Diego Fax: (619) 524-0575 www.bracpmo.navy.mil

RESTORATION ADVISORY BOARD MEETING SCHEDULE

The RAB meets the last Thursday of every other month, **unless otherwise noted in bold**. The next RAB meetings are scheduled for:

- September 29, 2016
- December 1, 2016
- January 26, 2017

Meetings begin at 7:00 p.m. and are held at:

Mare Island Conference Center

375 G Street, Vallejo, CA 94592