



FINAL

Former Naval Station Treasure Island Restoration Advisory Board (RAB) Meeting Minutes

Meeting 158

21 February 2012

Community Restoration Advisory Board (RAB) Members in attendance:

Nathan Brennan, Alice Pilram (community co-chair), Dale Smith, Martha Walters

Department of the Navy and Regulatory Agency RAB Members in attendance:

James Sullivan (Navy), Remedios (Medi) Sunga (Department of Toxic Substances Control [DTSC]), Myriam Zech (San Francisco Bay Regional Water Quality Control Board [Water Board])

Other Navy and Regulatory Staff and Consultant Representatives in attendance:

John Baur (Shaw Environmental and Infrastructure, Inc. [Shaw])
Jessica Beck (Tetra Tech EM Inc. [Tetra Tech])
Chris Donahue (Shaw)
Brian Holmgren (Shaw)
Danielle Janda (Navy)
Tony Konzen (Navy)
Patricia McFadden (Navy)
Anthony Searls (Shaw)
Tommie Jean Valmassy (Tetra Tech)

Public Guests

Fred Ousey, Enviro-Tech Services
Mike Rearn, resident
Teresa Rearn, resident
Tom Gandesbery, community member
Boone A., resident

Welcome Remarks and Introductions

James Sullivan (Base Realignment and Closure [BRAC] Environmental Coordinator) opened the February RAB meeting for Former Naval Station Treasure Island (NAVSTA TI) held at the Casa de la Vista (Building 271) on Treasure Island (TI). Mr. Sullivan noted the meeting handouts are available on the back table, including copies of the agenda (Attachment A). He asked if there were any changes or additions to the agenda; there were none.

Public Comment and Announcements

Mr. Sullivan invited public comment, noting there is also time at the end of the meeting for additional public comment. He added that comments and questions

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during the meeting were also welcome. There was no public comment at this time.

Treasure Island/Yerba Buena Island Property Transfer Update and Finding of Suitability to Transfer

Mr. Sullivan provided his regular RAB meeting update on the status of property transfer (Attachment B). He said there is nothing new since the presentation he gave in December, though he had hoped the pre-closing conveyance would have been completed by now. He noted that if the Navy and the Treasure Island Development Authority (TIDA) have not completed the pre-closing conveyance by the end of February, it should happen in March. Mr. Sullivan explained this pre-closing conveyance includes the property the city and the California Department of Transportation (Caltrans) need for the Bay Bridge ramps. It also includes the historic properties on Yerba Buena Island (YBI), which will allow TIDA to relocate Officer's Quarters 10 out of the path of the planned ramps and to a new location on YBI.

Mr. Sullivan explained the pre-closing conveyance is only a small portion of the property on YBI. He noted the Finding of Suitability to Transfer (FOST) 3 document was finalized in January, and the RAB received a copy for review. The 2006 FOST 2 and the recent FOST 3 documents together include the entirety of the YBI property, and that property will be transferred to TIDA in about a year. The pre-closing conveyance will include a small portion of property from FOST 2 and a small portion from FOST 3, for a total of about 27 acres. Dale Smith (community RAB member) asked if the pre-closing conveyance includes all of the Officer's Quarters. Mr. Sullivan said even though it is only 27 acres, it includes all of what is referred to as either the "Historic District," the "Senior Officer's Quarters," or the "Big Whites." Mr. Sullivan said he is expecting an updated map that will better illustrate the pre-closing conveyance and he will share it with the RAB.

Mr. Sullivan said the Navy is also working on a Covenant to Restrict Use of Property (CRUP) with DTSC. Ms. Smith asked if that was because of lead in soil, and Mr. Sullivan confirmed that the CRUP is for lead. He said the CRUP will be recorded and packaged as part of the deed for the property in the pre-closing conveyance.

Munitions Update

Mr. Sullivan introduced Patricia McFadden (Navy) from the Navy's Caretaker Site Office (CSO) at NAVSTA TI to provide a brief update on a recent munitions development. There was no handout, and this item was not on the agenda. Ms. McFadden said she assists with munitions cleanup at various Navy bases in the Bay Area and has an update about munitions at Site 12 on TI.

In 2009, Shaw was conducting a removal action at Westside Drive in Site 12 in a specific debris or dump area. She said Shaw was asked to save and store any items found that may have had historic significance or interest. Shaw found varied items that included such things as an old cafeteria tray. Shaw put all of the items aside, and recently was cleaning out the area where those items were stored. One of the Shaw workers noticed some of the items had appeared to be munitions, though they looked like empty casings. The Navy asked Shaw to have their experts check the items to make sure. There were several items that could not be thoroughly inspected, so the Navy called in military experts.

Specifically, the Explosive Ordnance Disposal (EOD) Unit from Travis Air Force Base was called in to inspect the items. The unit was unable to do it on-site, so instead transported the items to Travis Air Force Base and was able to verify the items were inert. In total, there were 19 items, ranging in size from a 20-millimeter round, which is an anti-aircraft round, up to a 6-inch round. Ms. McFadden explained that size refers to the diameter.

Ms. McFadden said the items had clearly been discarded; a hole had been drilled through some, which is typically done to indicate an item is not active. The Navy tried to evaluate why they would have been discarded at NAVSTA TI in the first place. She noted NAVSTA TI was primarily used for administration and training, so it is presumed the rounds were used as part of training before they were discarded. She said they were all found in one distinct area. Even though these items were all found to be inert, extra precautions will be used during future excavations in that area. She added the Navy takes munitions work seriously and uses great precaution when dealing with any area where munitions could be found. She added these precautions are not expected to delay the cleanup schedule because they can be done in conjunction with the radiological precautions also being taken at the excavation.

Medi Sunga (DTSC) asked for clarification about when and where the munitions were found. Ms. McFadden said the excavation was done in 2009 and that is when the items were removed from the site. They were stored as historic artifacts at Shaw's office on TI, and recently when Shaw was going through its storage, Shaw discovered the items were munitions. Martha Walters (community RAB member) and Ms. Sunga both asked how they could have been excavated in 2009 and not discovered to be munitions until 2012. Mr. Sullivan said they were stored as historic items of interest to be examined later. Ms. McFadden added this method is not approved for dealing with any kind of suspect item that is excavated. There are lessons learned and Shaw is investigating and conducting employee interviews to find out exactly what happened.

Ms. Smith asked why procedures for munitions are not included in every sampling and analysis plan (SAP) for NAVSTA TI. Mr. Sullivan said that, although debris and discarded items have been found, the Navy has never found any munitions at NAVSTA TI. Ms. McFadden said there was not even a small arms range on the base, and between the history of use at NAVSTA TI and the absence of any munitions at other excavations on TI, the Navy did not expect to find munitions. She said most of the 19 items found were casings and looked like pieces of metal. She added, however, that better judgment should have been used by whomever stored the items.

Ms. Walters asked if the Navy had considered whether there could be any other munitions where these were found, and if the Navy had investigated for that potential. Ms. McFadden said when the munitions were discovered, the Navy asked several questions, including: (1) exactly where did these come from, (2) is the area within Site 12 where they were discovered different in any way, or similar to the rest of Site 12, and (3) whether additional precautions are needed. It was determined that the exact area where these were munitions found is a distinct debris pit. It was an area where large items, including an engine block, had been disposed of during a different era. Ms. Smith asked if the engine block was naval or from an automobile. Mr. Sullivan said it was a gas or diesel engine; small propellers were also found in the area. Ms. Smith asked exactly where in Site 12 this excavation was conducted. Mr. Sullivan said it was on Westside Drive in front of (west of) Building 1321. He added there had not been further excavations in that area since these items were removed in 2009.

Ms. McFadden said there will be further excavations in this area because the Navy knows there is additional debris. The debris extends under the building, so the building has been planned for demolition. Additional field precautions, including a more watchful eye, better defined work plans, and better defined procedures, will be in place in case of the presence of more munitions. Ms. McFadden said the area was already slated for radiological scanning, so adding in the extra precautions in case of munitions will not delay the schedule. Ms. Smith asked if radiological concerns are the reason the building is slated for demolition. Ms. McFadden said debris beneath the building is why it is slated for demolition.

Ms. Walters asked what other buildings will be demolished in that area. Mr. Sullivan said in addition to Building 1321, the Navy is also planning to demolish Buildings 1319 and 1123. He said Mr. Holmgren will cover this action in the field activities update and noted the demolition will not occur until later this year.

Mr. Sullivan summarized saying the material was all found to be inert. Ms. McFadden said she will return to a future RAB meeting and give another update

if there are other concerns when the remainder of the work in that area is being conducted.

Field Activities and Access Update

Mr. Sullivan introduced Brian Holmgren (Shaw) to present the field activities updates. Mr. Holmgren began with the update for Sites 21, 24, 25, and 32 (Attachment C). He said Shaw conducted four quarters of groundwater sampling at Sites 21, 24, and 32; the fourth quarter was conducted between January 17 and 26. He said Shaw will prepare one report that covers all four quarters of sampling and submit the draft to the Base Realignment and Closure (BRAC) Cleanup Team (BCT) and the RAB for review. Ms. Walters asked when the report will be submitted. Mr. Holmgren said Shaw still has to receive the data from the last quarter of sampling and then will prepare an internal draft report for the Navy to review. He noted there were about 89 samples collected per quarter, so that will be a lot of data to review, validate, and put into tables and figures. He expects the draft report to be issued to the RAB and BCT within the next 3 months.

Mr. Holmgren then reviewed the photos in the handout showing collection of groundwater samples. He noted a technician is using a bladder pump to collect samples in one photo. The size of the well that is being sampled is on the larger side, about 4 inches, so it can hold the bladder.

Mr. Holmgren provided an update on the Site 24 treatability study. Phase 3 of the study is being performed to concentrate on the residual groundwater contamination along the southern boundary. In December, Shaw developed wells to ready the wells for startup of the treatment system. The flow rate from some of the extraction wells was less than expected, so in response, Shaw will add a few additional wells in the same general location. He noted it is a small deviation from the work plan the RAB has seen.

In January, Shaw collected baseline groundwater samples to make sure an updated picture of the situation was available before the treatment system was started. Several planned direct-injection locations were moved based on the baseline groundwater sampling. Mr. Holmgren said Shaw use a drill rig to inject the substrate for direct injection at 21 locations within Site 24, from February 6 through February 16. Shaw also plans to start the treatment system on March 1. Mr. Holmgren pointed out the location of the additional wells he mentioned on the figure on slide 6.

Mr. Holmgren reviewed some photos of the system, including the piping before it was installed, the setup of an extraction well, and the mixing tanks where the sodium lactate is prepared for the direct-push injections.

Mr. Holmgren then provided an update on the Site 21 soil gas sampling (part of the same attachment). In November and December, Shaw collected soil gas samples from about 20 locations. As a result of those samples, Shaw installed five additional soil gas wells: two inside Building 111 and three in the southeast corner of Building 3. In addition, three soil gas wells inside Building 3 were resampled. The results from those additional samples are not yet available, but Shaw expects them from the laboratory within the next week. That information will be used to prepare an addendum to the human health risk assessment (HHRA) for Site 21. Mr. Holmgren reviewed the photos in the attachment showing the process for installing soil gas wells and collecting soil gas samples.

Mr. Holmgren said soil gas samples had been previously collected at Site 25. In January, Shaw went to the site to abandon the wells. That process includes drilling around the well, removing it, and then filling the hole with grout. He noted the area where the wells were smoothed over to make sure there are no tripping hazards.

Ms. Smith asked if Building 111 is ever used or if it is vacant. Mr. Holmgren said it is used as an antique storage facility. Ms. Smith asked about the photo with a well in the hallway and if that is an issue for tenants. Mr. Holmgren said the well shown in the hallway is in Building 3, which is a hangar. Mr. Holmgren said the wells are flush with the ground so there is no tripping hazard, and people walking past it likely would not even notice the well. Ms. Smith asked if the well is locked to prevent access. Mr. Holmgren said it is locked and requires a special tool to open.

Mr. Holmgren moved on to the update on Sites 31, 33, and Building 262 (Attachment D). The work plan for Site 31, which is the former elementary school yard, was finalized on January 30, and work notices were delivered to nearby residents the same day. Mr. Holmgren reviewed the storm water pollution prevention measures undertaken in preparation for field work. Shaw will haul soil that is excavated and put it on laydown pads so it can be scanned for radiological constituents. However, the laydown pads have to be built and scanned in advance. Shaw is currently performing a gamma walkover survey to scan the pads and will finish this week. There is some previously excavated soil already stockpiled at the site. That soil will be scanned first, then the other areas will be excavated and those soils will be scanned and characterized.

Ms. Smith said she had seen some concrete barriers, the type usually seen along the freeway, and asked if those were the soil stockpile areas. Mr. Holmgren said they are not; the stockpile areas will be built using hay bales as a berm area, then laying down 10-millimeter-thick plastic sheets on the ground. There will be two areas; each one will be 50 feet by 50 feet. Ms. Smith asked if the soil can be

scooped back out of the area without damaging the plastic. Mr. Holmgren said it can be removed without damaging the plastic.

Ms. Walters asked about the work notices provided to residents and whether anyone was concerned. Mr. Sullivan said there were no concerns. The Navy spoke directly with the Boys & Girls Club several times because the work is closest to the club. Mr. Holmgren said he informed the club that Shaw would be extending the fence line to the north, and the club had approved of the new configuration.

Ms. Sunga asked if Shaw would be doing a gamma walkover survey of the stockpile storage areas. Mr. Holmgren said a gamma walkover survey will be conducted for the stockpile areas, the laydown pads, and the excavated areas. Mr. Holmgren also said the laydown pads will have a 6-inch layer of clean soil that will be the base of the laydown pad.

Mr. Holmgren said the work at Site 33 is covered under the same work plan as Site 31. He said it is further from any residential areas than Site 31; Site 33 is located in the southeastern portion of TI. However, it was included in the work notices sent to residents and nearby tenants were informed of the planned work. On February 2, Shaw set up temporary fencing that closed a small portion of Avenue I and Fourth Street. He noted they are side streets that are not well-traveled, and it is not expected to have an impact on traffic. Shaw has already conducted gamma walkover surveys at Site 33. The first area surveyed had detections slightly above background levels. Shaw will go back to that area later and investigate. In the meantime, Shaw is scanning an alternative area and has found it suitable to use as a laydown area for the excavation at Site 33. Shaw is currently building the laydown pad and will then begin the excavation work, probably around the end of the week of the RAB meeting.

Mr. Holmgren reviewed a figure from the work plan in the presentation and pointed out the five excavation areas at Site 33. Mr. Holmgren showed a photo of a technician doing the gamma walkover survey. Ms. Smith asked about the equipment. Ms. Holmgren said it is small, the size of a baby carriage. Chris Donahue (Shaw) said the equipment has a sodium iodide three-by-three crystal mounted to a carriage with a global positioning system (GPS). Ms. Smith asked if it moves in a controlled way to make sure it does not travel too quickly. Mr. Holmgren said it is not automatically controlled, but the technician can look down and see exactly how fast he should walk.

Mr. Holmgren gave an update on Building 262, which is also known as the torpedo building. The Navy will transfer this building to TIDA, but in advance, will remove any loose asbestos-containing materials that have fallen from the ceiling inside the building. He noted this work is also covered under the same

work plan as the work at Sites 31 and 33. The work is in no way connected; it was a matter of convenience and efficiency to have it on the same contract and work plan. Shaw will be cleaning the horizontal surfaces, including the floor, shelving areas, an elevated platform, and the flat roof of a small interior office inside the building. All of the loose material will be removed and disposed of properly. Mr. Holmgren said Shaw began the work the date of the meeting, February 21. He said Shaw expects it to be quick work and plans to finish February 22.

Mr. Holmgren moved on to the update of Building 233 (Attachment E). The Characterization, Remediation, and Final Status Survey Work Plan was finalized on January 25. Shaw is loading debris from the previously demolished building into bins for disposal. Once the debris is loaded into the bins and taken to Site 6 for storage, Shaw will characterize the footprint of the building.

Ms. Smith asked to what depth Shaw will characterize the footprint and whether Shaw will take out the concrete piers the building sat on. Mr. Holmgren said the piers will be removed. Ms. Donahue said first Shaw will scan the asphalt for comparison to background levels. Then, all of the asphalt will be removed and disposed of properly. Then, Shaw will scan the underlying soil, and if something is found, will remove it and scan again. Ms. Donahue added there is some sewer line piping that also needs to be removed and scanned, so that will also be done. Ms. Sunga asked if the plan is to scan, remove anything that is found, scan again, and remove if anything else is found. Ms. Donahue said that the statement is correct.

Mr. Holmgren moved on to the last site on the field activities update, Site 12 (Attachment F). Mr. Holmgren said the draft Demolition Work Plan for Buildings 1123, 1319, and 1321 was reviewed by the Navy's Radiological Affairs Support Office (RASO). Shaw is incorporating those comments and then the document will be issued to the BCT and the RAB for review, probably sometime in March.

The other document related to Site 12 is the Bayside and North Point Removal Action Post-Construction Summary Report. The Navy is still reviewing the document; then, a schedule will be developed for BCT and RAB review.

Mr. Holmgren said excavation work at Solid Waste Disposal Area (SWDA) A&B, which is on Westside Drive, is on hold pending the demolition of Buildings 1123, 1319, and 1321. However, Shaw expects to remobilize to the field sometime this summer. Mr. Holmgren reviewed the path forward for Bigelow Court, which is also in Site 12. The internal draft Bigelow Court Non-Time Critical Removal Action Work Plan is being revised and will be made available to the BCT and the

RAB as a draft for review. He added Shaw also expects to be back in the field working in the area this summer as well.

Tom Gandesbery (community member) noted the agenda says an access update will be provided in relation to Site 12. Mr. Holmgren said the access has not changed. Most of Perimeter Road is open, but the area along Westside Drive, where Shaw will be doing further excavation this summer, remains closed.

Site 21 Draft Record of Decision

Mr. Sullivan introduced Danielle Janda (Navy) to present the Site 21 Record of Decision/Remedial Action Plan (ROD/RAP) Update (Attachment G). Ms. Janda said there were two current activities at Site 21: the ROD/RAP, and the soil gas investigation. The ROD/RAP is currently undergoing review by the regulatory agencies. The soil gas investigation was discussed previously by Mr. Holmgren.

Ms. Janda gave a brief introduction to Site 21. The site is located in the southeast corner of TI by Building 3. It is a former dip tank that was used to clean motor parts and engines. Chlorinated solvents used in this process have contaminated groundwater over the years. Two treatability studies have been performed at Site 21; in 2005 and 2010. Ms. Janda referred to the figure in her presentation and indicated the groundwater contours of 1 microgram per liter concentrations from summer 2011.

Ms. Janda explained that the ROD/RAP is a legal document that describes the chosen remedy for the contamination at Site 21. The ROD/RAP is the culmination of sampling, monitoring, treatability studies, and evaluation of a number of remedial options for Site 21. The ROD/RAP includes the technical rationale, cost, effectiveness and implementability, community and regulatory acceptance, compliance with laws and regulations, and overall protection of human health and the environment for the selected remedy.

The selected remedy for Site 21 is to implement institutional controls (IC). The ICs for Site 21 would establish commercial use and restrict residential use to limit human health concerns. A future landowner may develop Site 21 for residential use only if engineering controls will be implemented, which are physical controls to prevent human contact with contamination. Ms. Janda offered examples of engineering controls such as vapor barriers and passive ventilation. Future residential development would require review and approval from the regulatory agencies.

The draft ROD/RAP is currently under agency review. The final ROD/RAP will not be signed until after the HHRA addendum is reviewed by the agencies. The timeline for the draft HHRA addendum is June 2012.

Ms. Smith stated that she understood that Site 21 would be cleaned up to residential standards as TIDA prefers. Ms. Janda responded that the Navy is working with TIDA regarding the goals to protect human health and the environment. She explained that cleanup to residential standards would delay the transfer of property to TIDA, increase the cost, and delay the overall schedule of the cleanup.

Ms. Smith and Ms. Walters questioned the effectiveness of passive venting at other sites, including the Fleet Industrial Supply Center Oakland (FISCO) property in Alameda. Ms. Sunga stated that on other sites with volatile organic compound (VOC) contamination in groundwater, mitigation measures have allowed the redevelopment to move forward. She said the purpose of the HHRA addendum is to develop a cleanup goal for the site and to evaluate whether there are any health risks for any vapor intrusion. Ms. Janda added that this HHRA is not a full risk assessment; it is a risk assessment addendum. The HHRA was completed in 2007.

Within the context of vapor intrusion, Mr. Nathan Brennan (community RAB member) noted that Building 3, an historic building, would remain onsite and would have commercial reuse. Ms. Janda added that the 1996 reuse plan by TIDA and the developers did not include residential use for this site. The 2009 plan, which is not finalized, includes residential use for specific areas; proposed new structures between Building 3 and the shoreline. The Navy is working with TIDA, the regulators, and developers during this planning process.

Ms. Janda returned to the discussion on the HHRA. The HHRA was completed in 2007 based on data from 1994 to 2002. The data were analyzed to calculate the probability that someone might experience adverse health effects. The HHRA concluded that the property is acceptable for commercial/industrial use but not for residential use.

Ms. Janda explained that to have a health risk, contamination and an exposure pathway are required. If either the contamination or an exposure pathway is lacking, there is no health risk. A vapor barrier, for example, prevents contaminants from seeping into a building, thereby eliminating the exposure pathway.

Ms. Janda reviewed the contaminants of concern at Site 21. They include the following chlorinated ethenes: tetrachlorinated ethenes (PCE), trichlorinated ethene (TCE), dichlorinated ethene (DCE), and vinyl chloride (VC). These are VOCs, so they vaporize easily. The exposure pathway of these VOCs at Site 21 includes dermal contact and inhalation by construction workers who might dig trenches and have access to groundwater. Vapor intrusion into buildings is another exposure pathway of concern.

The indoor air concentrations can be estimated two ways: using groundwater concentrations or using soil gas concentrations. Using groundwater concentrations, the groundwater is sampled and the contaminant concentration in the soil gas beneath the building is estimated based on those concentrations. Using the soil gas concentrations, the soil gas is sampled below the building and then used to estimate the concentration of indoor air in the building above. Currently, DTSC and the U.S. Environmental Protection Agency (EPA) recommend that both methods be performed and the more conservative result is used when the health risk is evaluated.

The 2007 HHRA used only the first method (groundwater) to estimate the indoor air concentrations. DTSC requested the Navy perform soil gas sampling at Site 21 to ensure the HHRA conclusions from 2007 are still valid. Twenty-six soil gas samples were collected at the end of December 2011. The first goal of the investigation was to collect enough data to be able to calculate, as accurately as possible, the indoor air concentration for current buildings and future buildings, either residential or commercial. It was important to know whether the risk was underestimated in the 2007 HHRA. A second goal of the investigation was to delineate the soil gas plume relative to the groundwater plume.

Ms. Janda explained only preliminary results are available at this time and the data still need to be validated. She referred to the slides for Site 21 that show the extent of the elevated concentrations of PCE and TCE in the soil gas. The magenta line indicates where these concentrations were above the State of California screening levels. The soil gas plume does not extend significantly beyond the area of remaining groundwater contamination.

Once the data are validated, the Navy will prepare and present the results of the HHRA addendum. Based on the preliminary results, the Navy is confident that these results support the conclusions in the 2007 HHRA. Ms. Janda repeated the conclusions, which are that Site 21 is acceptable for commercial/industrial use but not residential use. The expected completion date for the HHRA addendum is June 2012.

Ms. Janda continued that once the ROD/RAP is signed, the Navy (or future landowner) is responsible for implementing, maintaining, reporting, and enforcing ICs at Site 21. The Navy will develop an implementation plan that will explain how the ROD/RAP will be enforced.

Ms. Walters and Ms. Smith asked about the future use of Building 3. Mr. Sullivan and Ms. Janda stated that it is for commercial use, possibly as a location for filming, but the specific use had not been identified. The difference in exposure times of commercial versus residential was explained based on concerns about the potential duration of a movie set in Building 3.

Ms. Smith questioned the distribution of the soil gas sampling locations at Site 21. Ms. Janda explained that the regulatory guidance recommends spacing the sample locations 100 feet apart. Existing data were used to support placement of these soil gas sampling locations. Delineating the extent and concentrations of the soil gas plume was a key priority for the December 2011 sampling. Therefore, the sampling locations were placed, in part, to delineate the plume.

Ms. Smith asked about the depth of the groundwater plume and if it has been reduced. Ms. Janda stated the groundwater plume is not moving either laterally or vertically but she did not know offhand the depth of the groundwater contamination. Mr. Holmgren and Mr. Sullivan said they can get back to Ms. Smith about the depth of the groundwater plume.

John Baur (Shaw) stated that the direct-push injections are done in a way that injects the substrate and evenly distributes it throughout the groundwater interval, not just at the top of the groundwater. Mr. Holmgren added that when the direct-push injections were done at Site 24, most of the locations started at 30 feet below the ground surface with the first injection. Once that injection was complete, the tip was raised up 5 feet for another injection. These 5-foot increments are continued up through the groundwater column so that the whole plume is treated instead of one localized area. Mr. Sullivan added that the Navy can provide more details regarding the current condition of the groundwater plume. Ms. Smith stated that it is often during the ROD/RAP phase of the cleanup when community members raise concerns about what is proposed for the future.

Underground Storage Tank (UST) 240 Draft Corrective Action Work Plan

Mr. Sullivan introduced Tony Konzen (Navy) and Phil Skorge (ERRG) to present the UST 240 Draft Corrective Action Work Plan update (Attachment H). Mr. Konzen, the remedial project manager for the UST 240 project, explained that UST 240 is located on the northwestern corner of Site 6, in the northeastern section of TI. UST 240 is near the former firefighting training school. The corrective action plan, issued on February 10, 2012, proposes to remove residual petroleum products used during the firefighting training operations to the extent practical.

Mr. Skorge reviewed the technical approach to UST 240. He stated his review is mostly a recap of the October 2011 presentation when the UST 240 project was introduced to the RAB. Because of the upcoming field implementation phase, the Navy wanted to revisit UST 240 with the RAB and provide an update.

Mr. Skorge said that there were three former tanks in the area: two USTs and one aboveground tank (AST). These tanks stored fuels and were used in a variety of firefighting exercises. The two USTs (240A and 240B) contained diesel and

gasoline. There is little information on the AST located west of the USTs. Mr. Skorge referred to the presentation slide that mapped the green L-shaped area that makes up the AST/UST 240 corrective action area. The locations of the three former tanks are within this boundary.

Mr. Skorge presented a summary of previous investigations and cleanup at UST 240. The Navy initiated the first investigations in 1986 when it was discovered that petroleum had been released into the soil and groundwater from these leaking tanks. A monitoring well located adjacent to the tanks identified several inches of floating free-phase product. The tanks were removed in 1992. The Navy performed a preliminary cleanup in 2002 and 2003 that involved excavating soil, primarily from the vadose (unsaturated) zone. Specifically, the excavation did not go below the water table (approximately 5 to 6 feet). Free product was recovered during the field effort mostly through the use of absorbent pads.

Since 2003, follow-on investigations have reported elevated petroleum compounds in the soil and groundwater at the AST/UST 240 area. The Navy is proposing an early cleanup of this area following Water Board guidance and closure criteria.

The AST/UST 240 area is primarily contaminated with petroleum compounds, which are not commingled with other Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) contaminants. Since the AST/UST 240 area does not contain dioxins, the planning process can be streamlined and performed concurrently with the ongoing CERCLA remedial investigation/feasibility study (RI/FS). The goal is to remove the petroleum-contaminated soil and residual free-phase product in the AST/UST 240 area to the extent practical in accordance with Water Board guidance. This upcoming removal will focus on the predetermined boundaries because the outlying areas are subject to the RI/FS and CERCLA process.

Mr. Skorge summarized the seven major field tasks for the AST/UST 240 area. The first task is to properly abandon monitoring well 06-MW01 to access the contaminated soil. Next, the soil will be excavated to a depth of 8 feet. Since this depth is below the water table, there will be sufficient opportunities to remove any secondary sources. Excavation to this depth will also be protective of human health, and is consistent with the depths evaluated in the RI/FS. The third major field task is to perform limited dewatering, including removing potential free-phase product. The fourth task will be to collect confirmation soil samples from the sidewalls and the bottom of the excavation. The fifth task involves characterization and subsequent disposal of the petroleum-contaminated soil from the excavation. The soil will be disposed of at an appropriate permanent facility. The sixth task is to restore and replace any pavement and fencing that

were temporarily removed during the field activities, including the asphalt-paved area that is north of the former tanks. The seventh and final task is to install two groundwater monitoring wells. One will be located at the source area to monitor post-remediation concentrations in the source area. A second monitoring well will be located downgradient of the plume to monitor for potential migration of hydrocarbons.

Mr. Skorge referred to a slide in his presentation showing the proposed excavation area in more detail. The graphic shows the locations where soil samples exceeded a cleanup level for a petroleum compound. Mr. Skorge explained the objective is to excavate and remove as many of those locations as possible, except for those locations commingled with dioxins.

Mr. Skorge completed his presentation by discussing the schedule for the AST/UST 240 area. The draft CAP was submitted on February 10, 2012. Comments on the draft CAP are due by March 11, 2012. Once the Navy has addressed and resolved all comments, the CAP will be finalized. The Navy anticipates the final CAP to be submitted in May 2012, followed by the field implementation. Mr. Skorge completed his presentation and asked if there were any questions.

Ms. Smith asked what was going to happen with the dioxins in this area. Mr. Konzen replied that the AST/UST 240 area and activities address only soil and groundwater affected by petroleum contamination. The RI/FS for Site 6 addresses the dioxin contamination, and there is a separate CERCLA process for dioxins. Mr. Sullivan explained that the Navy ended up dividing the UST 240 area from the rest of Site 6 because cleanup at UST 240 could be accelerated. The UST 240 area can be cleaned up and closed out with the Water Board, while the RI/FS and the CERCLA process for the remainder of Site 6 continues.

Mr. Boone A. (resident) asked how the groundwater affects the current residences. Mr. Sullivan explained that none of the groundwater at TI is used as drinking water. Mr. Sullivan continued that the only potential effect from the groundwater is vapor intrusion, which was discussed in the earlier presentation. Since this area is an open, empty field, there are no impacts to residences.

Co-Chair Announcements

Mr. Sullivan began by announcing that the Navy would like to discuss with the RAB the schedule for future RAB meetings. Mr. Sullivan explained that the Navy BRAC program has been looking at reducing the frequency of RAB meetings. He explained that the Navy is seeking the RAB's input on this matter. In light of the Navy's accountability for taxpayer dollars, and existing fiscal shortfalls, the Navy has to defer projects because there are not enough funds in any given year. For example, the final remedial action at Site 12 has been

delayed for several years because it does not fit into the current funding profile. Mr. Sullivan explained the funding profile can change, but the Navy has to plan based on the future budgets it is given.

Mr. Sullivan stated that in November 2011, the President issued an executive order promoting efficient spending in the federal government. Mr. Sullivan said the Navy is providing a rough conceptual schedule for future RAB meetings. He said the schedule is based around documents that will be issued. Based on the limited number of sites, this rough proposed schedule is not evenly spaced throughout the calendar year. For example, the current meeting has been lengthy because there were many updates and documents to review and discuss. Mr. Sullivan said the next peak of activity at TI is in April 2012. The work plan for Bigelow Court, based on the existing work plan for Site 12, and the demolition plan for three buildings at Site 12 are slated for April. Several more activities at TI will start in June. The Site 21 HHRA addendum, Sites 31 and 33 remedial action completion report (RACRs), a summary report on the field work at YF3, and the Historical Radiological Assessment Technical Memorandum are all slated for June. Additional activities are scheduled for TI in September.

Mr. Sullivan requested that the RAB look at which months would be the best to meet and whether conference calls, instead of physical meetings, might be appropriate for some meetings. Mr. Sullivan stressed that this revised schedule must work for the community members, so the Navy is requesting feedback from the RAB on this topic and schedule for 2012.

Ms. Walters noted that she had earlier worked for U.S. EPA in Washington D.C. when the RABs were created, and that EPA felt that the community should know about the cleanup from the beginning to the end even though that could be a period of 20 to 25 years. She stated that the public and the community living on Treasure Island have a right to know about the environmental cleanup. She said that Mr. Sullivan has previously stated it costs \$13,000 to \$14,000 for each RAB meeting, and that the Navy has an annual cleanup budget this year for Treasure Island of \$5 to \$8 million. She stated that, within this context, the RAB meetings are a small percentage of the overall budget. Ms. Walters stated that having a RAB meeting every 2 months is mandatory because it supports the community's right to know about TI. She suggested that to reduce costs, the Navy could look at reducing the number of contractors who attend the RAB meetings.

She offered that the RAB reevaluate the schedule a year from now, but for now, Ms. Walters said the RAB meetings every 2 months should continue. Based on the 2011 Site Management Plan, there are numerous active sites at TI under the CERCLA process, as well as the UST 240 area.

Ms. Smith agreed with Ms. Walters that regular RAB meetings are necessary for at least the next year. Ms. Smith acknowledged that the Navy is already frugal but encouraged the Navy to look again at cost-savings measures other than reducing the frequency of the RAB meetings. Ms. Smith suggested using webinars (video teleconferencing) to help reduce the cost of hosting a RAB meeting. She suggested this approach might save money while still allowing the consultants to attend since they are able to provide valuable information to the RAB.

Mr. Sullivan said the Navy already uses teleconferencing with the regulators. Handouts are provided ahead of time. These meetings are done via phone only and do not involve additional costs. Ms. Smith said there would need to be a facility where the public could come and have access to a phone and computer for the teleconference. She said that teleconferencing makes it difficult for the public to get involved. Since there is not a location on TI where a webinar can be held, this option is more difficult. Mr. Sullivan acknowledged her point, stating that teleconferencing may not be a viable substitute for these types of meetings.

Mr. Brennan supports keeping the RAB meetings every 2 months, especially during the next year when many of the sites at TI are active. His concern is that limiting frequency to quarterly meetings, from his experience with other organizations, can lead to confusion, misunderstandings, and decreased attendance by the community members. He suggested that the RAB schedule remain as is for now and this issue be readdressed after several more RAB meetings.

Mr. Sullivan acknowledged the comments and proposed that the RAB schedule remain the same for now and be reevaluated later in 2012 after more documents have been released and additional field work has been performed. Ms. Walters and Ms. Smith agreed to this plan of action.

Mr. Sullivan suggested Shaw host a radiological training session during the April RAB meeting since the agenda for the meeting is light.

Ms. Smith suggested additional cost-saving measures for the RAB meetings, including handouts produced in black and white instead of color and delivering documents via regular mail instead of by FedEx or UPS. Mr. Sullivan stated that the Navy had looked into mailing options previously and the Navy contractor's bulk rates for FedEx are comparable to the post office rates.

Mr. Brennan suggested that this discussion continue at the April RAB meeting. Mr. Sullivan said the goal of the cost-saving measures is to have the Navy and the community work together to find solutions. Mr. Sullivan reminded the RAB that the frequency of the RAB meetings at TI has already been reduced from

monthly to every 2 months and the schedule may need to be readjusted again based on the pace of work.

Alice Pilram (Community RAB co-chair) agreed with the other RAB members that the RAB meetings should continue every 2 months.

Mr. Sullivan said he would report the RAB's comments on the meeting schedule to the Navy.

As a result of the length of the RAB meeting, Mr. Sullivan suggested abbreviating the rest of the agenda for the meeting. Ms. Pilram agreed.

Upcoming Documents and Field Schedule

Mr. Sullivan said any questions regarding the Document Tracking and Field Schedule handouts can be asked later.

RAB Meeting Minutes

Mr. Sullivan asked if there were any corrections to the December 13, 2011, RAB meeting minutes. Ms. Smith, Mr. Brennan, and Ms. Walters said they have no corrections to the RAB meeting minutes. The RAB meeting minutes were approved as written.

BRAC Cleanup Team Update

Mr. Sullivan said the agenda items covered during the RAB meeting tonight covered what had been discussed at the last two BCT meetings.

Other Public Comments and Announcements

Mr. Brennan stated that the Community Advisory Board (CAB) is still in suspension. The February meeting was cancelled so there has not been a meeting for a number of months. Mr. Brennan asked about the Site 30 annual inspection. Mr. Sullivan responded that an inspection form needs to be completed for Site 30 and the report written.

Future Meeting Agenda Items

There were no specific requests for future agenda items except for the previous comment by Mr. Brennan to continue the discussion on cost-saving measures and the upcoming RAB schedule at the April RAB meeting.

Closing Remarks/End of Meeting

Mr. Sullivan said that the April RAB meeting would be held as scheduled once he verifies this meeting approach within a week. The next RAB meeting is scheduled for Tuesday, April 17, 2012.

Mr. Sullivan thanked everyone for attending. The meeting was adjourned at 9:22 p.m.

February 2012 RAB Meeting Handouts

- Attachment A: NAVSTA TI RAB Meeting No. 158 Agenda, 21 February 2012
- Attachment B: Property Transfer & FOST Update, 21 February 2012
- Attachment C: Sites 21, 24, and 32, and Site 25, 21 February 2012
- Attachment D: Sites 31 and 33, Building 262, 21 February 2012
- Attachment E: Building 233, 21 February 2012
- Attachment F: Site 12, 21 February 2012
- Attachment G: Site 21 Draft ROD, 21 February 2012
- Attachment H: AST/UST 240 Corrective Action Plan Update, 21 February 2012
- Attachment I: Document Tracking Sheet, 21 February 2012
- Attachment J: Field Schedule, 21 February 2012

NAVAL STATION TREASURE ISLAND
ENVIRONMENTAL RESTORATION ADVISORY BOARD MEETING
Tuesday, 21 February 2012
7:00 PM.
Casa de la Vista Building 271
Treasure Island
MEETING NO. 158

- 7:00 – 7:05 **Welcome Remarks and Introductions**
Lead: James Sullivan, Navy Co-Chair
- 7:05 – 7:10 **Public Comment and Announcements**
Lead: James Sullivan, Navy Co-Chair
- 7:10 – 7:15 **Treasure Island/Yerba Buena Island Property Transfer Update**
Lead: James Sullivan, Navy Co-Chair
- 7:15 – 7:30 **Field Activities and Access Update (Sites 12, 21, 24, 31, 33, and Buildings 233 and 262)**
Lead: Brian Holmgren, Shaw E & I
- 7:30 – 7:40 **Site 21 Draft Record of Decision**
Lead: Danielle Janda, Navy Remedial Project Manager
- 7:40 – 7:50 **UST 240 Draft Corrective Action Work Plan**
Lead: Tony Konzen, Navy Project Manager and
Phil Skorge, ERRG
- 7:50 – 8:15 **Co-Chair Announcements**
Lead: Alice Pilram, Community Co-Chair
- Navy presentation and discussion of future RAB Meeting
Schedule
- 8:15 – 8:20 **Upcoming Documents and Field Schedule**
Lead: Jessica Beck, Tetra Tech EMI
- 8:20 – 8:25 **RAB Meeting Minutes**
Lead: James Sullivan, Navy Co-Chair
- 8:25 – 8:30 **BRAC Cleanup Team Update**
Lead: James Sullivan, Navy Co-Chair
- 8:30 – 8:35 **Other Public Comment and Announcements**
Lead: James Sullivan, Navy Co-Chair
- 8:35 – 8:40 **Future Meeting Agenda Items**
Lead: Navy and Community Co-Chairs



BRAC Program Management Office



Naval Station Treasure Island Property Transfer Update

Restoration Advisory Board Meeting
February 21st, 2012



Property Transfer Update



- Property transfer (conveyance) of FOSTed property to the Treasure Island Development Authority (TIDA) has not yet occurred, but is expected to occur in phases beginning in February/March 2012.
- Portions of former Naval Station property have been previously transferred to the U.S. Department of Labor for the Job Corps Center on TI, to the U.S. Coast Guard on YBI, and by the Federal Highway Administration (FHWA) to Caltrans. The remaining Navy property is to be transferred to TIDA.
- The Navy currently leases large portions of the remaining Navy property on TI and YBI to TIDA, and TIDA subleases property for housing, recreation, businesses, special events and other uses.



Property Transfer Update



- Major environmental milestones required for initial property conveyance from Navy to TIDA:
 - Complete Building 233 Radiological Final Status Survey Report
 - Complete CERCLA Site 21 Final Record of Decision (ROD)
 - Conduct Remedial Action at Site 33 and complete Remedial Action Completion Report (RACR)
- The Navy will complete a Radiological Technical Memorandum for Treasure Island to assess current information and make findings and recommendations
- Property Conveyance in 2012 will consist of:
 - February/March 2012: Pre-closing conveyance of Yerba Buena Island property to support improvements to the Bay Bridge.
 - Early 2013: Initial conveyance of Treasure Island property upon meeting the environmental milestones and the Radiological Technical Memorandum

3



Property Transfer Update



- Major milestones required for pre-closing property conveyance on YBI from Navy to TIDA in February/March 2012:
 - CDPH (EMB) Letter to close out radiological questions at Yerba Buena Island (YBI) – Completed December 23
 - Navy Property Description to CDPH – Completed December 9
 - Complete Revised FOST 3 for YBI – Final Issued January 17 2012
 - Covenant to Restrict Use of Property (CRUP) – February/March 2012
- No Early Transfers planned at this time.
- Future property conveyances will occur as necessary environmental response actions are completed and property is found suitable for transfer. The specific schedules for the necessary environmental actions are reflected in the Site Management Plan (SMP).

4



Naval Station Treasure Island



Sites 21, 24, and 32 Site 25

Resident Advisory Board (RAB) Meeting
February 21, 2012

1



Groundwater Monitoring at Sites 21, 24, and 32



- The fourth quarter groundwater monitoring event was conducted between January 17 and January 26.
- At Site 32, the two wells were sampled on January 17.
- At Site 24, the 52 wells were sampled between January 17 and January 24.
- At Site 21, the 35 wells were sampled between January 23 and January 26.
- This completes the four quarterly groundwater monitoring events. One report will be generated summarizing all four quarters of the groundwater monitoring events. The Internal Draft version will be reviewed by the Navy in March.

2

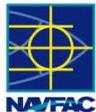


Groundwater Monitoring at Sites 21, 24, and 32



A peristaltic pump is used to collect groundwater samples.

3



Groundwater Monitoring at Sites 21, 24, and 32



A bladder pump is used to collect groundwater samples.

4



Site 24 Treatability Study



Piping for Phase 3 of the Site 24 Treatability Study organized and partially assembled prior to installation.

7



Site 24 Treatability Study



Piping set up at an extraction well within the fenced area of Site 24.

8



Site 24 Treatability Study



Mixing tanks containing injection solution for the direct-push injection portion of Phase 3.



Site 24 Treatability Study



Sodium lactate solution pumped into mixing tanks for use in direct-push injections.



Site 24 Treatability Study



Technicians perform direct-push injection with Shaw oversight at Site 24.

11



Site 21 Soil Gas Sampling



- As a result of the soil gas samples collected in December, five additional soil gas wells were installed at Site 21. Two wells were installed inside Building 111 on February 2. Three wells were installed in the southeast corner of Building 3 on February 6 and 7.
- The three wells installed inside Building 3 were sampled on February 8 and 9. The two wells installed inside Building 111 were sampled on February 9. Also, five existing soil gas wells located inside Building 3 were resampled on February 8.
- Once the analytical results have been received the data will be analyzed and an addendum to the HHRA will be written. This will be submitted to the Navy for review.

12



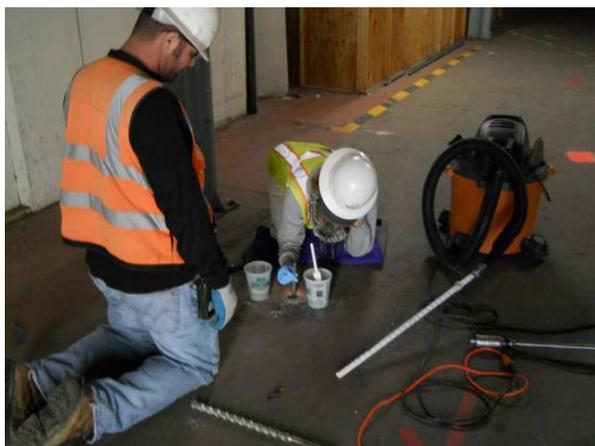
Site 21 Soil Gas Sampling



Installation of a soil gas well begins at Site 21.



Site 21 Soil Gas Sampling



Installation of a soil gas well continues within Building 3 at Site 21.



Site 21 Soil Gas Sampling



Typical setup used to sample soil gas at Site 21.

15



Site 25



- Site 25
 - Twenty one soil gas sampling wells were abandoned on January 16. The locations were grouted to ground level.

16



Site 25



A technician uses a direct-push rig to remove a soil gas well at Site 25.

17



Site 25



A technician uses grout to fill in the void left by removal of the soil gas well at Site 25.

18



Naval Station Treasure Island



Sites 31 and 33 Building 262

Resident Advisory Board (RAB) Meeting
February 21, 2012

1



Site 31

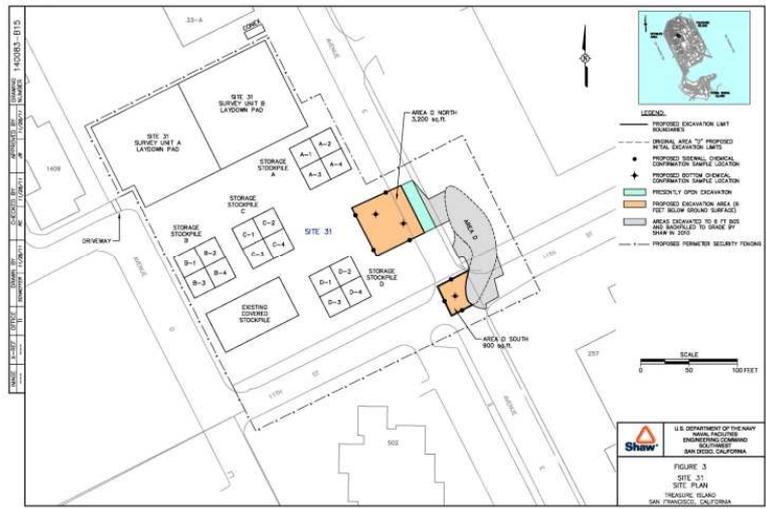


- The Work Plan was finalized on January 30. Field work notifications were distributed to nearby residents on January 27.
- In anticipation of field work storm water pollution prevention activities were conducted (runoff control, storm drain maintenance, etc.)
- The fencing perimeter at Site 31 was extended northward to make room for the two laydown pads.
- A gamma walkover survey (GWS) of the proposed laydown pads was started February 15 and will end February 22. The laydown pads will be constructed and a GWS of the base soil layer will be performed.
- The transfer of soil from the existing stockpile to the laydown pads for radiological surveying is planned to start February 29. CDPH plans to periodically conduct concurrent soil scans.

2



Site 31



Site 31, Site Plan.



Site 31



Fence with waddles inside Site 31. The waddles were installed to comply with new storm water pollution prevention guidelines.



Site 33



Temporary security fence is assembled along the perimeter of Site 33.

7



Site 33



A gamma walkover survey is performed on the proposed laydown pad area.

8



Site 33



A gamma walkover survey is performed on excavation Area 1, Area 2, and Area 3.

9



Building 262



- Building 262 is the Torpedo Building located on Yerba Buena Island. Prior to transferring the building to the City of San Francisco, the Navy will address the presence of loose asbestos containing material (ACM) inside.
- Although Building 262 is included in the same Work Plan as Sites 31 and 33 there is no connection between Building 262 and Sites 31/33.
- Planned work at Building 262 involves the removal of fallen pieces of asbestos containing roofing material that has fallen onto horizontal surfaces inside the building. These surfaces include the concrete floor, wooden shelves, a raised platform, a flat roof of an indoor office room, and the two ledges of either end of Building 262 where the roof overlaps.
- The work is planned to start the week of February 20 and last two days.

10



Building 262



View of the southern exterior of Building 262. New portion of the Bay Bridge under construction above.



Naval Station Treasure Island



Building 233

Resident Advisory Board (RAB) Meeting
February 21, 2012

1



Building 233



- The Final Building 233 Characterization, Remediation, and Final Status Survey Work Plan was published on January 25.
- The Building 233 debris is being loaded into bins for disposal as potential low level radiological waste (anticipated completion March 1st).
- Characterization of the Building 233 footprint will begin once the debris is removed (anticipated to start March 5th)

2



Naval Station Treasure Island



Site 12

Resident Advisory Board (RAB) Meeting
February 21, 2012

1



Site 12 Documents



- Buildings 1123, 1319 & 1321 Demolition Work Plan
 - The Navy and RASO have reviewed the Internal Draft. Their comments have been incorporated and the plan was reissued to the Navy and RASO for approval on January 27. The BCT will be issued the Draft Work Plan following Navy and RASO concurrence on the reissued Internal Draft document (March 2012).
- Bayside and North Point Removal Action Post-Construction Summary Report
 - The report was submitted to the Navy and RASO on October 18 for review. A date for submittal of the Draft to the BCT will be proposed following the Navy and RASO review of the Internal Draft version.

2



SWDA Excavations



- Site 12 excavation work at SWDA A/B is on hold pending the demolition of Buildings 1123, 1319 and 1321 and discussions for completing the removal action in this area.
- Field Mobilization
 - Field activities at Buildings 1123, 1319 and 1321 are expected to begin in Summer 2012.

3



Bigelow Court Look Ahead

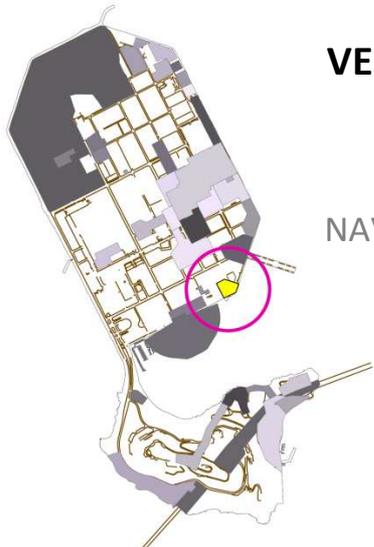


- Bigelow Court Work Plan
 - The Internal Draft document is being revised. The Draft document is scheduled to be issued to the BCT in late March 2012.
- Field Mobilization
 - Field activities are expected to begin in Summer 2012.

4



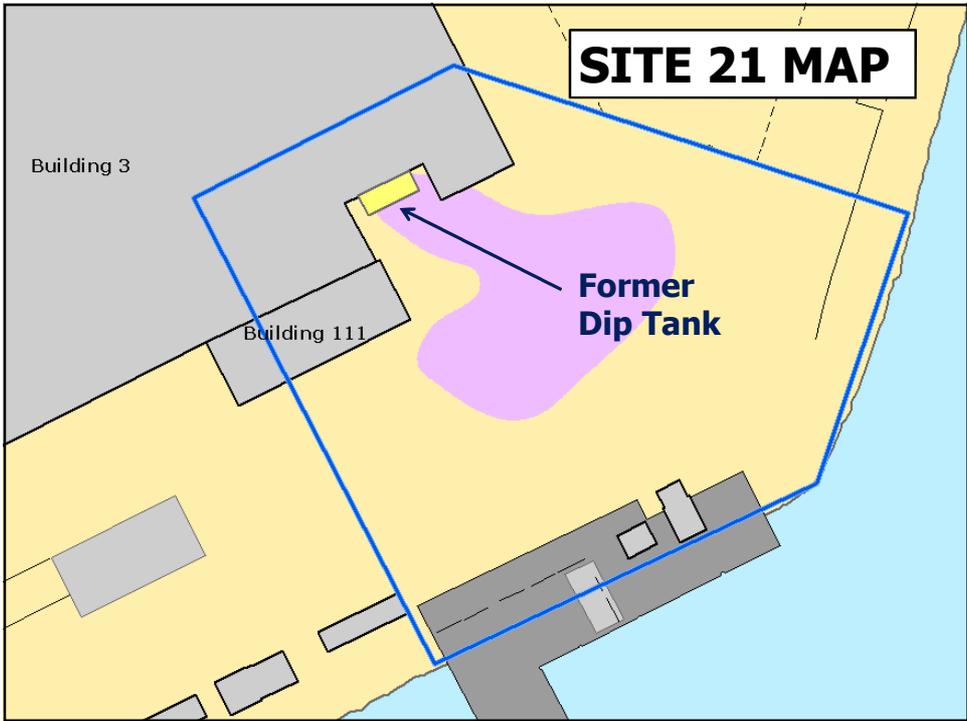
Site 21 Draft ROD



VESSEL WASTE OIL RECOVERY AREA

NAVAL STATION TREASURE ISLAND

Presented by Danielle Janda





Site 21



Draft Record of Decision



What is a Record of Decision?



A Record of Decision (ROD) is a legal document that explains what remedy will be used to cleanup an Installation Restoration Site

It describes the technical rationale for selecting the chosen Remedy





Remedy for Site 21



The Remedy is Chosen Based on:

- Effectiveness and Implementability
- Cost
- Community and Regulatory Acceptance
- Compliance with Local, State and Federal Laws and Regulations
- Overall Protection of Human Health and the Environment

The Selected Remedy for Site 21

Institutional Controls



What are Institutional Controls?



Institutional Controls consist of establishing restrictions on use of the property to prohibit activities that could result in human exposure to contamination remaining at the Site

At Site 21 the Institutional Controls will restrict the property from Residential Use





Future Development of Site 21

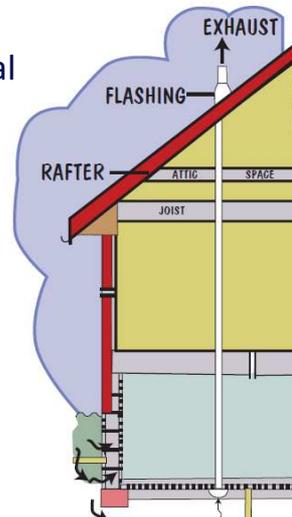


The Site may be used for Residential Use if **ENGINEERING CONTROLS** are put in place to reduce residential exposure to the contaminants



VAPOR BARRIER

<http://www.ert2.org/VaporIntrusion.aspx#tool=VaporIntrusion&page=Mitigation>



PASSIVE VENTILATION

<http://www.clu-in.org/download/char/600r08115.pdf>



Record of Decision



The Draft Record of Decision is currently under Agency Review

The Final Record of Decision will not be signed until after the Human Health Risk Assessment is reviewed by the Agencies (June 2012)





Site 21



Soil Gas Investigation and Human Health Risk Assessment Addendum



Risk Assessment Remembered



SITE 21 HUMAN HEALTH RISK ASSESSMENT

- Completed in 2007
- Based on data collected between 1994 and 2002

CONCLUSIONS

- Site 21 is acceptable for Current and Future Commercial/Industrial Use
- Residential use of Site 21 is not acceptable



What is a Risk Assessment?



A Risk Assessment estimates the probability of adverse health effects in humans who may be exposed to chemicals in contaminated media.

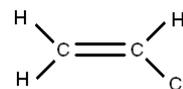
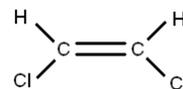
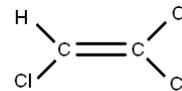
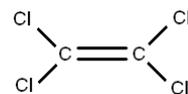


CONTAMINANTS OF CONCERN



Chlorinated Ethenes

- PCE – Tetrachlorinated Ethenes
- TCE – Trichlorinated Ethene
- DCE – Dichlorinated Ethene
- VC – Vinyl Chloride



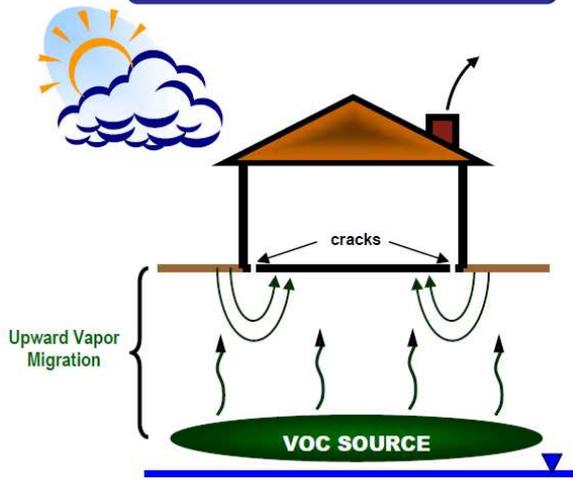


Exposure Pathway



Vapor Intrusion

- Inhalation in Indoor Air
- Inhalation/Dermal contact by Construction Workers



http://www.dtsc.ca.gov/AssessingRisk/upload/Final_VIG_Oct_2011.pdf



Why are we doing a Soil Gas Investigation?

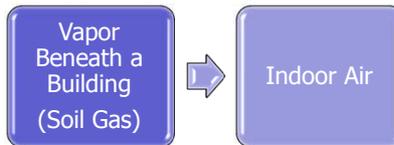


Two Ways to Estimate Indoor Air Concentrations

1) Calculate Using Groundwater Concentrations

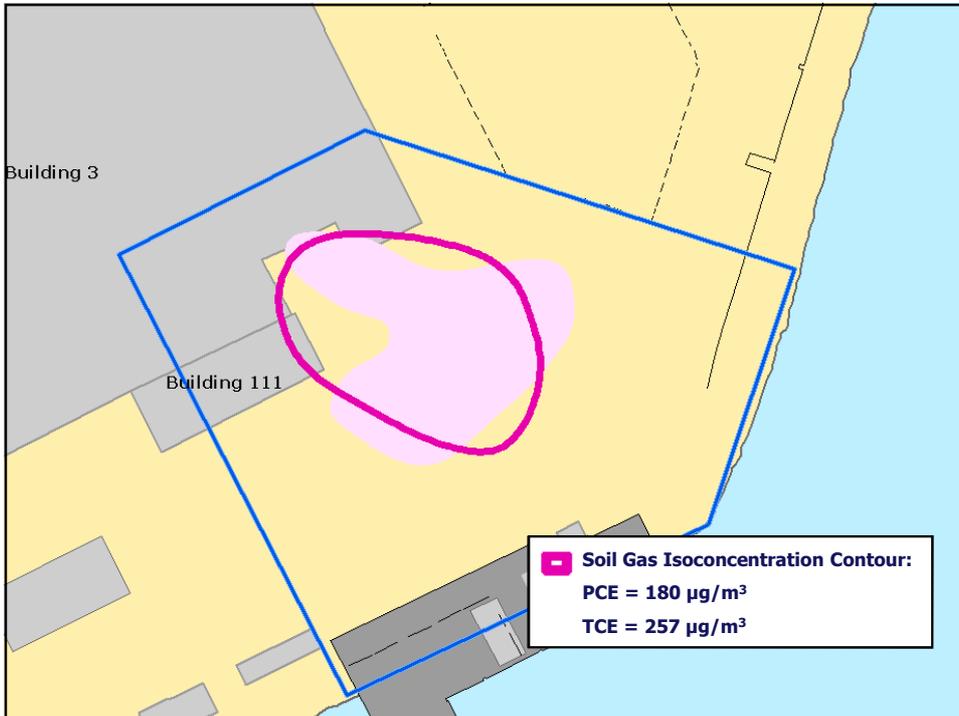
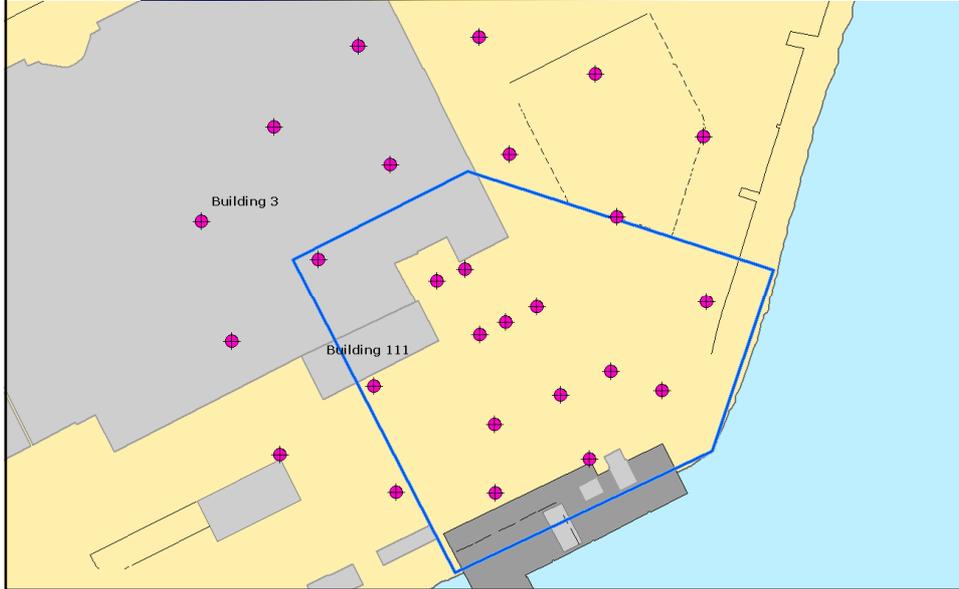


2) Calculate Using Soil Gas Concentrations





Soil Gas Investigation





Risk Assessment Addendum



The Navy is in the process of evaluating the Soil Gas Data

Based on Preliminary analysis, the Navy expects that the conclusions from the 2007 Risk Assessment remain valid:

Site 21 is acceptable for current and future commercial and industrial use

Site 21 is not acceptable for residential use without mitigation measures

A Human Health Risk Assessment Addendum is expected to be completed in **June 2012**



What is Next for Site 21?



The Navy or the future landowner is responsible for implementing, maintaining, reporting and enforcing Institutional Controls

An Implementation Plan will be developed that explains how this Record of Decision will be enforced



AST/UST 240 Corrective Action Plan Update

**Naval Station Treasure Island
Restoration Advisory Board Meeting
21 February 2012**

Anthony Konzen, P.G., Navy BRAC
Project Manager

1



Presentation Overview

- **Site Background**
- **Cleanup Objectives**
- **Planned Field Tasks**
- **Schedule**

2



Site Background



➤ Site Location and Description

- AST/UST 240 Area located at northwest corner of IR Site 6 (Former Fire Training School)
- Fuels were stored in tanks and used in firefighting exercises

➤ USTs 240A/240B

- Two former 1,500-gallon USTs (240A/240B) contained diesel and gasoline

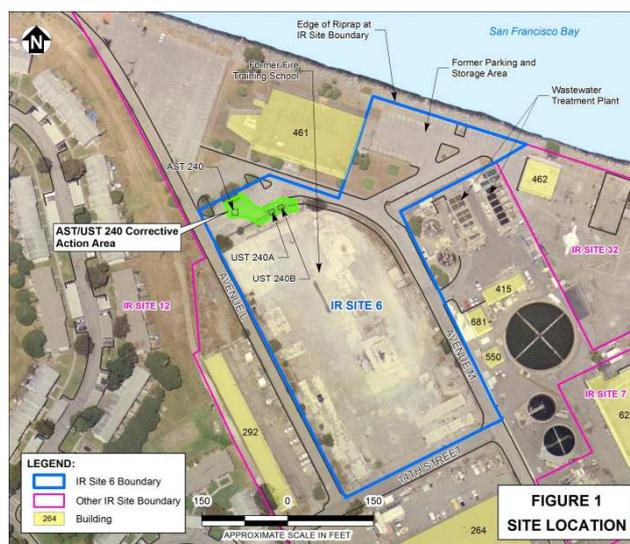
➤ AST 240

- Suspected aboveground fuel storage tank (AST 240) located west of USTs

3



Site Background



4



Site Background



➤ **Prior Investigations and Cleanups**

- Early investigations (starting in 1986) identified petroleum compounds in soil and groundwater at USTs 240A/240B
- USTs 240A and 240B were removed from site in 1992
- Cleanup of petroleum compounds was performed in 2002-03 (soil excavation and free product recovery)
- Follow-on investigations (since 2003) reported elevated petroleum compounds in soil and groundwater at the AST/UST 240 Area

5



Cleanup Objectives



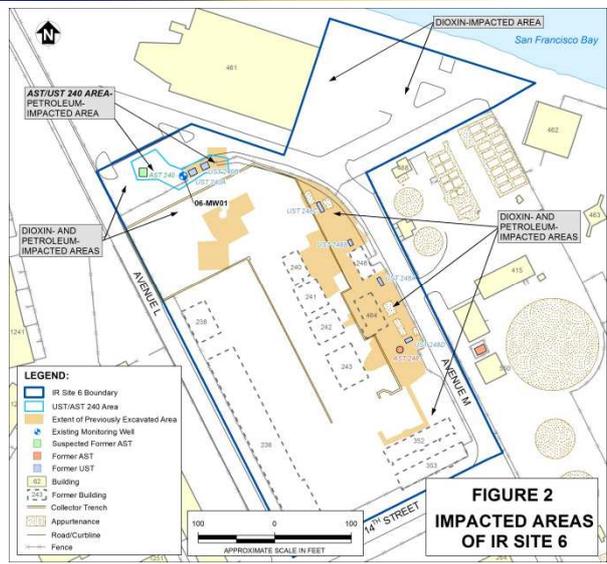
➤ **Navy proposes to perform early cleanup of the AST/UST 240 Area**

- Data indicates that additional removal is needed to address criteria specified by the Water Board
- Area does not contain dioxins, so the planning process can be streamlined and performed concurrent with the ongoing RI/FS
- Goal is to remove petroleum-impacted soil and residual free product to the extent practical, in accordance with Water Board guidance

6



Cleanup Objectives



7



Planned Field Tasks



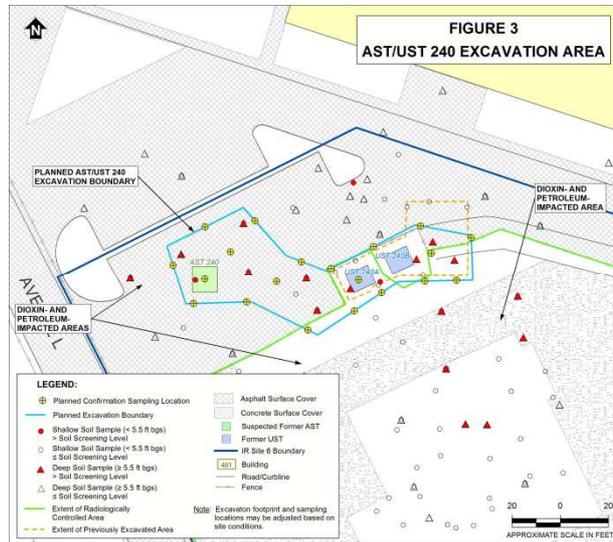
➤ Field Tasks

1. Abandon Well 06-MW01
2. Excavate petroleum-impacted soil to a depth of 8 feet
3. Perform limited dewatering, including removing potential free product
4. Collect confirmation soil samples from sidewalls and bottom of excavation
5. Characterize and dispose of petroleum-impacted soil
6. Restore/replace pavement and fencing
7. Install two groundwater monitoring wells

8



Planned Field Tasks



9



Schedule



- **AST/UST 240 Corrective Action Status and Schedule**
 - Draft Corrective Action Plan (CAP) submitted on February 10, 2012
 - Comments due March 11, 2012
 - Final CAP is planned to be submitted in May 2012 and will be followed by field implementation

10

**Naval Station Treasure Island
Environmental Cleanup Program
Document Tracking Sheet
February 2012 - July 2012**

Item	Document Title & Information	CTO/DO	INTERNAL DRAFT		DRAFT							RTC		INTERNAL FINAL		FINAL	Comments								
			Internal Draft Due to Navy	Navy Comments Due	Draft to Agencies	Agency Comments						Preliminary RTCs to Agencies	Resolve and Concur on RTCs	Internal Final to Navy	Navy Comments Due	Final to Agencies									
						Date Due	DTSC	WATER BOARD	EPA	TIDA/TICD	RAB							OTHER	Priority Review						
Shaw Group																									
	Building 233 Characterization, Remediation and Final Status Survey Work Plan	010	08/31/10, 09/30/10, 10/11/10, 03/11/11, 07/14/11, 10/04/11	✓	11/25/10, 03/04/11, 03/16/11, 08/12/11, 09/09/11, 10/14/11	✓	10/21/11	✓	11/18/11	✓	✓	✓	✓	✓	11/25/11	✓	12/14/11	✓	01/09/12	✓	01/13/12	✓	01/23/12	✓	
	RPM: Anthony Konzen																								
	PM: John Baur																								
	Sites 31/33 Remedial Action Work Plan (RAWP)	FZNP	10/15/10, 11/22/10, 01/10/11, 08/19/11	✓	10/29/10, 11/10/10, 09/02/11	✓	11/01/11	✓	11/30/11	✓	X	✓	✓	✓	12/29/11	✓	01/06/12	✓	01/16/12	✓	01/23/12	✓	01/30/12	✓	
	RPM: Lora Battaglia																								
	PM: John Baur																								
1	Site 12 Bigelow Court NTCRA Work Plan	FZNP	11/22/10, 12/23/10, 01/24/11, 2/27/12	✓	12/14/10, 04/30/11, 08/01/11, 3/23/12	✓	03/30/12		04/30/12						05/15/12		05/18/12		05/21/12		05/25/12		05/31/12		
	RPM: Anthony Konzen																								
	PM: John Baur																								
2	Buildings 1123, 1319, 1321 Demolition Plan	010	06/14/11, 01/27/12	✓	12/5/2011, 02/10/12	✓	03/11/12		04/10/12						04/23/12		05/03/12		05/17/12		05/24/12		05/31/12		
	RPM: Anthony Konzen																								
	PM: John Baur																								
3	Site 21 Soil Gas HHRA Addendum *	1	05/14/12		05/28/12		06/15/12		07/15/12						08/08/12		TBD		08/19/12		08/25/12		08/27/12		* Schedule subject to change based on discussions with BCT
	RPM: Danielle Janda																								
	PM: John Baur																								
4	Bayside/North Point Post-Construction Report	1	10/18/11	✓	02/17/12		04/01/12		04/26/12						05/20/12		TBD		05/31/12		06/04/12		06/06/12		Rec'd Navy comments 12/22/11. Awaiting RASO comments. Schedule will be revised.
	RPM: Anthony Konzen																								
	PM: John Baur																								
5	Site 31 Remedial Action Completion Report (RACR)	0002	06/06/12		07/06/12		07/20/12		08/18/12						09/05/12		09/17/12		09/27/12		10/12/12		11/11/12		
	RPM: Lora Battaglia																								
	PM: John Baur																								
6	Site 33 Remedial Action Completion Report (RACR)	FZNP	05/03/12		06/02/12		06/16/12		07/15/12						08/02/12		08/14/12		08/24/12		09/08/12		10/08/12		
	RPM: Lora Battaglia																								
	PM: John Baur																								
Tetra Tech EM Inc.																									
	YBI Finding of Suitability to Transfer (FOST) 3	001	08/09/10	✓	09/02/10	✓	11/18/11	✓	12/02/11	✓	X	X	✓	✓	12/12/11	✓	12/16/12	✓	12/19/12	✓	12/21/12	✓	01/17/12	✓	DTSC (12/1), TIDA (12/2), EPA (12/7), WB (12/7)
	RPM: David Clark																								
	PM: Marcie Rash																								
	2011 Site Management Plan (SMP)	001	03/24/11	✓	04/15/11	✓	04/27/11	✓	05/27/11	✓	X	X	✓	✓	NA		NA		11/23/11	✓	11/28/11	✓	12/28/11	✓	DTSC (5/3), TIDA (5/26), EPA (6/2)
	RPM: David Clark																								
	PM: Marcie Rash																								
7	Island Times Newsletter #18	001	01/12/12	✓	02/01/12	✓	02/09/12	✓	02/23/12						NA		NA		03/04/12		03/11/12		03/18/12		
	RPM: Jim Sullivan																								
	PM: Marcie Rash																								

**Naval Station Treasure Island
Environmental Cleanup Program
Document Tracking Sheet
February 2012 - July 2012**

Item	Document Title & Information	CTO/DO	INTERNAL DRAFT		DRAFT							RTC		INTERNAL FINAL		FINAL	Comments		
			Internal Draft Due to Navy	Navy Comments Due	Draft to Agencies	Agency Comments						Preliminary RTCs to Agencies	Resolve and Concur on RTCs	Internal Final to Navy	Navy Comments Due	Final to Agencies			
						Date Due	DTSC	WATER BOARD	EPA	TIDA/TICD	RAB							OTHER	Priority Review
Tetra Tech EM Inc. (continued)																			
8	Site 32 ROD/RAP	489	10/26/11*	11/09/11*	TBD	TBD											* Navy technical review ** Navy legal review Document on-hold pending Navy review.		
	RPM: Danielle Janda		11/17/11**	TBD**															
	PM: Jean Michaels																		
	Site 29 Artifact Technical Memorandum	001	10/21/11	10/28/11	11/01/11	12/01/11			X					12/20/11	12/21/11	12/20/11	12/21/11	12/28/11	DTSC (11/21), TIDA (11/30), WB (12/6)
	RPM: David Clark																		
	PM: Marcie Rash																		
Chadux Tetra Tech																			
9	Site 12 RI Report	049	03/02/11	04/01/11	06/10/11	08/26/11								12/22/12	TBD	TBD	TBD	TBD	Comments on RTCs: EPA (1/31), DTSC HERO (1/19), DTSC ERAS (1/24), TIDA (1/31)
	RPM: Anthony Konzen																		
	PM: Marcie Rash																		
10	Site 21 ROD/RAP	083	11/30/11	12/19/11	02/07/12	03/06/12								03/25/12	04/07/12	04/14/12	04/21/12	04/28/12	
	RPM: Danielle Janda																		
	PM: Jean Michaels																		
11	Site 27 ROD/RAP	084	08/08/11*	09/06/11*	11/04/11	12/19/11		X		X				01/26/12	02/01/12	02/25/12	03/06/12	03/20/12	* Navy technical review ** Navy legal review
	RPM: Lora Battaglia		09/20/11**	10/20/11**															
	PM: Katie Henry																		
TriEco Tetra Tech																			
12	Historical Radiological Assessment Tech Memo	001	04/25/12	05/25/12	06/08/12	07/08/12								08/05/12	TBD	09/04/12	09/14/12	09/28/12	
	RPM: David Clark																		
	PM: Marcie Rash																		
13	2012 Site Management Plan	003	03/26/12	04/30/12	05/07/12	06/06/12								06/27/12	06/06/12	08/02/12	08/13/12	08/27/12	
	RPM: David Clark																		
	PM: Marcie Rash																		
Trevet																			
14	2011 Sites 6 & 12 Annual Groundwater Report	9002	03/01/12	03/31/12	04/14/12	05/14/12								05/29/12	TBD	06/13/12	06/23/12	07/07/12	
	RPM: Tony Konzen																		
	PM: Greg Alyanikian																		
15	Sites 21 and 24 Groundwater Sampling Report	5011	11/30/11	01/23/12	02/21/12	03/22/12								04/06/12	TBD	04/21/12	05/01/12	05/15/12	
	RPM: Danielle Janda																		
	PM: Greg Alyanikian																		
16	Site 30 2012 LUC Inspection and Reporting	9002	02/24/12	03/25/12	04/08/12	05/08/12								05/23/12	TBD	06/07/12	06/17/12	07/01/12	
	RPM: David Clark																		
	PM: Greg Alyanikian																		

**Naval Station Treasure Island
Environmental Cleanup Program
Document Tracking Sheet
February 2012 - July 2012**

Item	Document Title & Information	CTO/DO	INTERNAL DRAFT		DRAFT							RTC		INTERNAL FINAL		FINAL	Comments					
			Internal Draft Due to Navy	Navy Comments Due	Draft to Agencies	Agency Comments						Preliminary RTCs to Agencies	Resolve and Concur on RTCs	Internal Final to Navy	Navy Comments Due	Final to Agencies						
						Date Due	DTSC	WATER BOARD	EPA	TIDA/TICD	RAB							OTHER	Priority Review			
ERRG																						
17	Site 6 RI/FS Report	:	09/23/11	✓	11/21/11	✓	12/22/11	✓	02/06/12	✓							03/05/12	TBD	04/04/12	04/14/12	04/28/12	DTSC (2/6)
	RPM: Tony Konzen PM: Phil Skorge																					
18	UST 240 Corrective Action Plan Work Plan	:	10/21/11	✓	11/30/11	✓	02/09/12	✓	03/11/12								03/18/12	TBD	03/25/12	04/01/12	04/06/12	
	RPM: Tony Konzen PM: Phil Skorge																					
CH2M Hill and Kleinfelder																						
19	YF3 Add'l Soil/Groundwater Sampling Work Plan	026	07/26/11	✓	08/25/11	✓	12/14/11	✓	01/13/12	X	✓	✓					02/03/12	02/17/12	02/22/12	02/26/12	02/29/12	DTSC (1/4), WB (1/12), TIDA (1/13)
	RPM: Danielle Janda PM: Holly Carter																					

- ✓ Production or review of document is complete.
- X Received notification of no comments or comments deferred to other agency.

Abbreviations:

- Bldg = Building
- CTO/DO = Contract task order/delivery order
- DTSC = Department of Toxic Substances Control
- EPA = U.S. Environmental Protection Agency
- FS = Feasibility study
- HHRA = Human health risk assessment
- LUC = Land use covenant
- NA = Not applicable

- PCB = Polychlorinated biphenyls
- PM = Project manager
- PP = Proposed plan
- RAP = Remedial action plan
- RASO = Radiological Affairs Support Office
- RI = Remedial investigation
- ROD = Record of decision

- RPM = Remedial project manager
- SAP = Sampling and analysis plan
- TBD = To be determined
- TICD = Treasure Island Community Developers
- TIDA = Treasure Island Development Authority
- UST = Underground storage tank
- Water Board (WB) = Regional Water Quality Control Board

Grey shading indicates the document is finalized.
 Blue shading indicates agency review comments are due within the next 60 days or are outstanding.
 Yellow shading indicates documents that will be issued draft or final within the next 60 days.

**Naval Station Treasure Island
Navy Field Schedule
February 2012 - July 2012**

Item	Activity & Investigation Area	DTS #	Field Dates	Navy RPM	CTO/DO	Project Manager	Field Team Lead	Complete
Shaw								
1	Non-Time Critical Removal Action Site 12	Doc --	Start: 02/26/07 Finish: TBD	Tony Konzen (619) 532-0924	010	Tony Searls (509) 735-9736	John Baur (925) 288-2019	
2	Sites 31/33 Remedial Action Sites 31 and 33	Doc --	Start: 02/02/12 Finish: 05/24/12	Lora Battaglia (619) 532-0968	FZN9	John Baur (925) 288-2019	Brian Holmgren (415) 398-6547 ext. 231	
3	Building 233 Debris Screening / Final Status Survey Building 233	Doc --	Start: 01/30/12 Finish: 05/20/12	Tony Konzen (619) 532-0924	010	Tony Searls (509) 735-9736	John Baur (925) 288-2019	
4	Site 24 Phase 3 Site 24	Doc --	Start: 11/13/11 Finish: TBD	Danielle Janda (619) 532-0796	FZO1	John Baur (925) 288-2018	Brian Holmgren (415) 398-6547 ext. 231	
5	Bigelow Court Non-Time Critical Removal Action Site 12	Doc 1	Start: 06/01/12 Finish: 09/11/12	Tony Konzen (619) 532-0924	010	John Baur (925) 288-2018	Barbara Matz (415) 398-6547 ext. 232	
	Sites 21, 24, and 32 4th Quarter Groundwater Sampling Sites 21, 24, and 32	Doc --	Start: 01/17/12 Finish: 01/30/12	Danielle Janda (619) 532-0796	0002 / 0005	John Baur (925) 288-2018	Brian Holmgren (415) 398-6547 ext. 231	✓
	Site 21 Additional Soil Gas Sampling Site 21	Doc --	Start: 02/02/12 Finish: 02/09/12	Danielle Janda (619) 532-0796	FZO1	John Baur (925) 288-2018	Brian Holmgren (415) 398-6547 ext. 231	✓
Trevet								
6	Site 6 - 1st Quarter Groundwater Sampling Site 6	Doc --	Start: 02/23/12 Finish: 02/24/12	Tony Konzen (619) 532-0924	9002	Matt Fuller (858) 578-8859	Matt Fuller (858) 578-8859	
7	Site 6 - 2nd Quarter Groundwater Sampling / Site 12 Semiannual Monitoring Sites 6 and 12	Doc --	Start: 06/05/12 Finish: 06/07/12	Tony Konzen (619) 532-0924	9003	Matt Fuller (858) 578-8859	Matt Fuller (858) 578-8859	
8	Sites 21, 24 - 1st Quarter Groundwater Sampling Sites 21 and 24	Doc --	Start: 04/16/12 Finish: 04/27/12	Danielle Janda (619) 532-0796	5011	Greg Alyanakian (858) 869-3110	Greg Alyanakian (858) 869-3110	
9	Sites 21, 24 - 2nd Quarter Groundwater Sampling Sites 21 and 24	Doc --	Start: 06/08/12 Finish: 06/20/12	Danielle Janda (619) 532-0796	5011	Greg Alyanakian (858) 869-3110	Greg Alyanakian (858) 869-3110	
	Site 30 LUC Inspection Site 30	Doc 16	Start: 01/31/12 Finish: 01/31/12	David Clark (619) 532-0973	010	Greg Alyanakian (858) 869-3110	Greg Alyanakian (858) 869-3110	✓
ERRG								
10	Site 6 / UST 240 Corrective Action Plan Site 6	Doc 18	Start: 05/18/12 Finish: 07/17/12	Tony Konzen (619) 532-0924	2608	Phil Skorge (925) 839-2266	Patrick Bratton (415) 848-7115	

**Naval Station Treasure Island
Navy Field Schedule
February 2012 - July 2012**

Item	Activity & Investigation Area	DTS #	Field Dates	Navy RPM	CTO/DO	Project Manager	Field Team Lead	Complete
CH2M Hill and Kleinfelder								
11	YF3 Soil and Groundwater Sampling YF3	Doc 19	Start: 03/01/12 Finish: 04/01/12	Danielle Janda (619) 532-0796	!	Holly Carter (801) 713-2888	Gabriel Fuson (510) 774-4115	

Abbreviations:

- Not applicable, there is no associated documentation listed on the DTS.
- CTO/DO Contract task order/delivery order
- DTS # The number listed corresponds to the associated documentation listed on the Document Tracking Sheet.
- LUC Land use control
- RPM Remedial project manager
- TBD To be determined
- UST Underground storage tank

- ✓ Field work is complete.

Yellow shading indicates field activities that will start or finish within the next 60 days.

Grey shading indicates field activities are complete.