



FINAL FORMER NAVAL STATION TREASURE ISLAND Restoration Advisory Board (RAB) Meeting Minutes

Meeting # 140

17 February 2009

Community Restoration Advisory Board (RAB) Members in attendance:

Nathan Brennan, Dale Smith

Regulatory Agency, City of San Francisco (City), and U.S. Department of the Navy (Navy) RAB Members in attendance:

James Sullivan (Navy), Ryan Miya (Department of Toxic Substances Control [DTSC]), Ross Steenson (San Francisco Bay Regional Water Quality Control Board [Water Board])

Other Navy Staff and Consultant Representatives in attendance:

Pete Bourgeois (Shaw Environment and Infrastructure [Shaw]), Tommie Jean Damrel (Tetra Tech EM Inc. [Tetra Tech]), Grady Gordon (Navy), Kevin Hoch (Tetra Tech)

Public Guests

Dan Stone (John Stewart Company)

Welcome Remarks and Introductions

James Sullivan (Base Realignment and Closure [BRAC] Environmental Coordinator) opened the 17 February 2009 meeting at 7:03 P.M. at the Casa de la Vista (Building 271) on Treasure Island (TI). The meeting agenda is Attachment A.

Mr. Sullivan welcomed those in attendance, and noted the rainy weather was likely affecting attendance. He noted that Community Co-Chair Alice Pilram would not be able to attend the meeting that evening because of family commitments. Mr. Sullivan also noted that Charles Perry (Navy) was unable to attend the meeting due to the early arrival of his newborn son. Mr. Sullivan then introduced Grady Gordon (Navy), a new member of the former Naval Station TI (NAVSTA TI) Navy Team. Mr. Sullivan explained Mr. Gordon is participating in a professional development program that involves job rotation among several of the Navy teams, and he will be working on the NAVSTA TI team through June 2009. Specifically, Mr. Gordon will be working on Site 31 as well as some other projects.

Public Comment and Announcements

Mr. Sullivan stated there are two public comment periods included in the RAB agenda to provide members of the public an opportunity to comment on the Navy's environmental program at NAVSTA TI – one at the start of the meeting

and one near the end. Mr. Sullivan added that attendees are also encouraged to ask questions or make comments at any time during the meeting. There were no public comments or announcements, so Mr. Sullivan proceeded to the next agenda item.

Field Activities Update, Sites 21, 24, and Site 12 Arsenic in Groundwater

Mr. Sullivan introduced Pete Bourgeois (Shaw) to provide an update on various field activities. (Attachment B). Mr. Bourgeois began with Site 21 at the TI Sailing Center. He noted Shaw is conducting a bioremediation project at this site for volatile organic compound (VOC) contamination. Shaw has injected a proprietary solution with microorganisms, known as SDC-9, to consume tetrachloroethylene (PCE) and trichloroethylene (TCE) in groundwater, and break them down into ethene.

Mr. Bourgeois stated that when Shaw initially began the bioremediation a few years ago, they had a difficult time getting the substrate through all of the aquifer due to the foundation of the deck on the Sailing Center building. As a result, they recently had to redo some of the injections. The Shaw team started by filling two 21,000-gallon tanks with groundwater. Then they mixed lactic acid and Well-Clear into the two tanks along with the SDC-9. Mr. Bourgeois noted the SDC-9 is produced in Shaw's laboratory in Knoxville, Tennessee, and shipped to NAVSTA TI.

Mr. Bourgeois stated the pH level in the tanks dropped dramatically when the Well-Clear was added. In order to bring the pH back up to near neutral, around 6 or 6.5, Shaw added sodium hydroxide to both tanks. Mr. Bourgeois stated the injections began a week prior to this RAB meeting, and were finished at all locations today (the day of this meeting).

Mr. Bourgeois showed photographs of the 21,000-gallon tanks. Dale Smith (RAB member) asked how tall the Well-Clear containers are for perspective with the 21,000 gallon tanks. Mr. Bourgeois said they are 3.5 to 4 feet tall.

Mr. Bourgeois showed a photograph of a front-end loader lifting a tub container filled with a dark, molasses-like liquid, which is the Well-Clear. The tubs were poured into the tanks, then mixed using a pump to get a good distribution within the tank. He then showed a photograph of the drill rig used to inject the mixture into the push points.

Mr. Bourgeois explained the injections were done by first driving a rod into the ground. Through the rod, the team would then inject the substrate from the tanks at a rate of about 50 gallons per minute into various groundwater zones. Mr. Bourgeois stated some locations have three zones and some have four, depending on the contamination level and the location. He noted that the

majority of the contamination is located near the building and the deck of the Sailing Center, as exhibited previously in a 3-dimensional model. Farther away from the building, the amount of contamination is less, so Shaw did not inject as much of the mixture into the outer wells.

Mr. Bourgeois showed a photograph of the sodium hydroxide being added to the tank. He said Shaw would pump the mixture from the 21,000 gallon tank into a smaller, 5,000 gallon tank, and from the 5,000 gallon tank directly into the push rods. He noted that the pump could run at a rate of 120 gallons per minute, but Shaw ran it at 50 gallons per minute to prevent mounding. He explained mounding is when groundwater mounds up around the injection point (from too high a rate of pumping) and breaks the seal to come through the hole around the push rod.

Mr. Bourgeois showed a photograph of the hose that is used to convey the contents from the tank to each push rod. One end of the hose is attached to the push rod, which is in the borehole. He stated the team put bentonite around the hole itself to seal it. Mr. Bourgeois pointed out the gauges on the system, which indicate the pumping rate in gallons per minute, as well as how many gallons have been injected. He said roughly 440 gallons of solution was injected at each location and each depth. So at one location, Shaw might pump 440 gallons at a depth of 5 feet, then another 440 gallons at a depth of 8 feet, and again at another depth if necessary, depending on the predetermined system setup.

Ms. Smith asked if there were back-pressure wells around the perimeter of the plume, on the bay side, to prevent forcing the contamination away from the center and toward the bay. Mr. Bourgeois stated barrier wells had been put in place a while ago along the water's edge. He noted those wells had worked well, and groundwater in the area toward the bay was very clean compared to other parts of the plume. He noted most of the injection wells for this round are at the Sailing Center deck and close to the building, with some toward Building 3. Shaw did not do any injections near the bay this time because that area was successfully cleaned up previously.

Ms. Smith asked if there had been any distortion of the plume near the bay, or in any other areas. Mr. Bourgeois stated there was no distortion of the plume in any areas. He added that the plume had done what the team expected it to do: where it was easier to inject the substrate, the treatment worked well and reduced the contamination to low levels. However, since Shaw is using a high-pressure injection procedure this time, it began with the injections on the outer wells to create a border around the more contaminated center and prevent the possible pushing out of contamination from its current configuration.

Mr. Bourgeois moved on to an update of Site 24, where Shaw is working on another bioremediation program to remediate petroleum and chlorinated solvents in groundwater contamination. Currently, Shaw is constructing the pipe sections for the injection and extraction wells. Mr. Bourgeois noted there had been significant vandalism to the system the last time they installed it, so now Shaw is in the process of rebuilding just about every extraction and injection well. He said the last step Shaw would take would be to attach the necessary copper wire to the system, because that would likely be the first item someone might try to steal.

Mr. Bourgeois moved on to an update of the Site 12 Arsenic in Groundwater study. He noted the Navy is conducting a pilot study to treat arsenic in groundwater at the site. The study itself is taking place on Westside Drive, between Buildings 1325 and 1319; Mr. Bourgeois indicated the location on a map. He said Shaw had performed groundwater sampling in January 2009, and installed six vadose zone wells. Also in January, the field crew performed purge volume tests and summa canister testing. In February they conducted soil gas and ambient air sampling and sparge testing; Mr. Bourgeois added Shaw would be conducting post-sparge ambient air and vadose sampling soon. He noted that all the rain was causing a delay because the sampling must be done at low low tide. The amount of rain has increased the level of the groundwater. The team hopes the weather will clear up during the week after this RAB meeting to allow for the sampling.

Mr. Bourgeois showed a photograph of the study area, which is a fenced area on Westside Drive. He noted the study area is all behind a fence, and is away from residents. Mr. Bourgeois then showed a slide with photographs of the field crew conducting a purge volume test and a sparge test. The purpose of the purge volume test is to determine the purge volume required prior to the soil gas sampling. The purpose of the sparge test is to determine the zone of influence of the bioremediation system, and the optimal flow to use when pumping into the wells.

Site 12 (TI Housing Area) Removal Action and Access Update

Mr. Bourgeois moved on to the Site 12 Housing Area update. He noted he did not have a handout. Mr. Bourgeois stated the soil removal operations at SWDA A&B was on standby, as has been reported at previous meetings. Shaw is working with the Navy's Radiological Affairs Support Office (RASO) to update the Radiological Sampling and Analysis Plan (RSAP) and the Radiological Protection Plan (RPP).

Mr. Bourgeois stated the reason for the updates to the RSAP and RPP is because Shaw detected elevated alpha readings in some areas of the concrete driveway of Building 1321 and in soil. Because of the new detections, the Navy, along with

Shaw and its subcontractor New World Technologies, is reviewing the safety precautions for the work to ensure safety of the workers. Mr. Bourgeois stated part of the new protocol is to have employees wear thermoluminescent dosimeters (TLD), which are gamma/beta detectors. In addition, all employees are put on a urinalysis program, so they are screened at the beginning and will be screened again at the end of the project.

Mr. Bourgeois stated Shaw and the Navy are anxious to update, finalize, and distribute the plans within the next week or two after this meeting. Mr. Bourgeois stated he hopes to have people back out in the field before the next RAB meeting in April, and will provide another update and any field work photos at that meeting.

Ms. Smith asked why employees would be given urinalysis for radiological constituents. She stated she did not believe radiation could be detected through urinalysis, and thought tissue analysis was required to detect radiation. Mr. Bourgeois stated radium-226 does pass through the body and any ingested radium-226 can be detected through urinalysis. He stated the team is being very conservative with this measure, and it is being conducted as a baseline for any person who works at the site. He noted the alpha from radium-226 does not travel far, but could be ingested by a worker if they were to do something like get soil on their gloves and then wipe their face. Mr. Bourgeois added that the workers follow strict protocols to avoid this type of exposure, but the urinalysis is just an extra precaution.

Ryan Miya (DTSC) asked for clarification about the updated safety protocols. He said his understanding is that there is no increased risk to residents at the site, and these updated safety measures are for workers. Mr. Bourgeois stated that is correct, the updated safety measures are for workers. Mr. Bourgeois explained that TLDs have been in place at the neighboring site, Site 6, and on Westside Drive. In addition, workers are using breathing zone air samplers (BZA), which are personal air monitors. Shaw is also testing for radiological detections upwind, downwind, and at each excavation site as well as monitoring for the other chemicals of concern (lead and polychlorinated biphenyls). In total, Shaw has performed 19 months of air monitoring, and to date there has been no migration of any kind of particulate matter that would impact the residents or other members of the public in the area. Mr. Bourgeois added that Shaw has engineering controls in place and a lot of data from the project to confirm that the work is being done correctly and there is no exposure to the public.

Mr. Sullivan stated that a Radiological Risk Assessment Point Paper was being prepared. The paper documents risk to buildings in the area that are currently occupied or that were previously occupied in the area of the removal action. Mr.

Sullivan stated the Navy plans to issue that document sometime within the next week. There were no further questions, so Mr. Sullivan moved on to the next agenda item.

2008 Look Back/2009 Look Ahead

Mr. Sullivan provided a review of final documents issued and field work conducted in 2008, along with a preview of planned final documents and field work for 2009. (Attachment C).

Mr. Sullivan began with the field work for 2008, listed by site, noting first projects that are still ongoing, then projects that were completed in 2008. For 2008 field work, Mr. Sullivan stated Mr. Bourgeois had discussed the ongoing projects: Sites 21 and 24 Treatability Studies, the Site 12 Non-Time-Critical Removal Action, and the Site 12 Arsenic in Groundwater Pilot Study. Also in 2008, the Navy and their contractor Trevet completed semiannual groundwater monitoring at Sites 6 and 12, which are the only sites that currently have ongoing groundwater monitoring. The Navy and their contractor Tetra Tech also completed the soil gas sampling at Site 12, and additional sediment sampling was completed at Site 27, Clipper Cove. Radiological surveys were completed at Buildings 233, 343, and 344. Lastly, a number of polychlorinated biphenyl (PCB) remedies were completed at various locations on NAVSTA TI. Mr. Sullivan noted that the PCB remedies ranged from encapsulation of floor surfaces in some areas to excavation in others.

Mr. Sullivan then summarized the final documents submitted in 2008. Mr. Sullivan reviewed 15 final documents, noting that most of them had a draft submitted first. He noted that many of the documents are work plans for the planned or current field work that was just discussed. Mr. Sullivan noted the Navy and Tetra Tech also completed the annual update of the Site Management Plan (SMP), and he showed a copy of that document. He explained the SMP contains a status summary of all sites and a master schedule to closure.

Mr. Sullivan noted the Final Status Survey Reports for Buildings 233, 343, and 344 were milestone documents for the radiological program at NAVSTA TI. Building 233 will be demolished, but Buildings 343 and 344 require no further action. Mr. Sullivan said the Navy had received a letter from DTSC granting free release for both of those buildings, meaning use of the structures is unrestricted. Mr. Sullivan added that both buildings are within Site 24 and could be subject to further investigation.

Ms. Smith asked why Building 233 will be demolished. Mr. Sullivan stated Building 233 was cited in historical documents as being the location of a radium salt spill in 1950, so the Navy and their contractors Shaw and Tetra Tech investigated the building and the drain system. After several rounds of

investigation, it was concluded that there is some very low level radium contamination in the building. Mr. Bourgeois added that the building has also been copper-mined by vandals, and that process exposed a significant amount of friable asbestos, making it a health hazard to enter the building. Mr. Bourgeois added that the roof of the building is caving in, and it makes sense to demolish it after asbestos removal is conducted.

Ms. Smith asked if Shaw would segregate contaminated building debris from the other construction debris and send them to different landfills. Mr. Bourgeois said Shaw would separate the materials. He stated Shaw would begin with an asbestos removal, then finish up the radiological screening. After the building is demolished, the footprint of the building will also be scanned for radiological materials. Mr. Sullivan stated the goal for Building 233 is to receive a free release for the footprint of the building, the same as the free release for Buildings 343 and 344. Mr. Sullivan added a work plan for the Building 233 work would be prepared in 2009.

Mr. Sullivan then reviewed Community Relations activities from 2008, including RAB meetings, a public meeting, a newsletter, a booth at the TI Community Picnic, maintenance of the Navy's website, and an update to the NAVSTA TI Community Relations Plan (CRP).

Mr. Sullivan then moved to the 2009 Look Ahead, beginning with planned field work, and noting the ongoing projects he had discussed in the 2008 review. Mr. Sullivan stated that the Navy hopes to complete the Site 12 Non-Time-Critical Removal Action in 2009, but that the schedule will be revised and presented to the RAB when work resumes.

For new field work in 2009, Mr. Sullivan reviewed four new projects. He noted that the Site 6 Data Gaps investigation and report that will be prepared will be used in the Site 6 Remedial Investigation (RI). Mr. Sullivan also highlighted the Site 31 Remedial Action planned for summer 2009. He noted the Remedial Action for Site 31 will follow the final signing of the Record of Decision (ROD) for the site, scheduled to happen in spring 2009. Mr. Sullivan stated this is the first post-ROD remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) for NAVSTA TI. Mr. Sullivan stated 2009 will be a busy year for field work at NAVSTA TI.

Mr. Sullivan also noted 2009 will be a busy year for documents, and reviewed the planned final documents for 2009. In total, he reviewed thirteen planned final documents. Mr. Sullivan noted the Interim RI for Sites 8 and 29, stating that Sites 8 and 29, as well as Site 11, are all on California Department of Transportation (Caltrans) property. The Navy is taking these sites as far as they can under the CERCLA program by issuing the Interim RI report to document all of the

activities to date. Mr. Sullivan noted that the schedules for documents for these sites would continue to be updated on the Document Tracking Sheet (DTS) handed out at each RAB meeting.

Mr. Sullivan then reviewed Community Relations activities planned for 2009, including newsletters and fact sheets, six RAB meetings, maintaining the Navy's website, and possibly hosting an open house/information session at the conclusion of the Site 12 Non-Time-Critical Removal Action.

Mr. Sullivan stated the presentation is really an overview, and the specific projects will continue to be covered at RAB meetings. He noted the Navy is making progress through the CERCLA process, and a number of sites have already been closed. Mr. Sullivan stated there are currently 10 CERCLA sites on Navy property that have not yet been closed, and the Navy is working hard toward achieving closure on those sites.

Site 32 PCB Soil Abatement Work Plan

Mr. Sullivan welcomed back Mr. Bourgeois to give an update on the upcoming soil removal at Site 32. Mr. Bourgeois stated he did not have a slide presentation, but had prepared a handout for the update. (Attachment D). The handout is a figure from the work plan. Mr. Bourgeois stated Shaw will submit a draft work plan to the BRAC Cleanup Team (BCT) and the RAB, and this figure will be included there as well.

Mr. Bourgeois stated Site 32 is the site of the old U.S.S. Pandemonium training ship mockup, located in the upper northeastern corner of TI near the boat launch area. He said the Navy and Shaw had done some investigative trenching during the Environmental Baseline Survey data gaps investigation in the past. The figure shows the data from historic sampling and from the more recent sampling. Shaw will excavate the top layer of asphalt from the entire site, and will excavate to various depths in different areas of the site, from 2 feet in most areas to 4 to 5 feet in other areas, and down to 9 feet in the top corner of the site.

Mr. Bourgeois pointed out the grid squares on the figure, and noted that each square will be sampled. The contaminants of concern (COC) are PCBs, metals, total petroleum hydrocarbons (TPH), pesticides, and dioxins, all present at low levels. Mr. Bourgeois explained the project can be classified as a "dig and haul" job. The schedule has the Shaw team conducting the field work sometime in April 2009, depending on the schedule for regulatory agency review of the work plan.

Ms. Smith asked whether Shaw had chosen the 2 feet excavation depth because they had sampled deeper than 2 feet in those areas and found no detections, and if Shaw would be testing the bottom of each excavation. Mr. Bourgeois stated

that is correct; Shaw had dug below 2 feet when investigating, and in the areas where they will excavate to 2 feet, the soil below that is not expected to be impacted. He stated Shaw will also be conducting confirmation sampling at the bottom and sides of each excavation. If the confirmation sampling shows further contamination, Shaw will excavate it during this field work event.

Ms. Smith noted there has been community concern about soil that has been stockpiled at that end of TI for another project, and asked if Shaw had figured out a way to keep from stockpiling soil in that area. Mr. Bourgeois stated the Navy and Shaw are sensitive to the community concerns and will not stockpile soil in the Building 461 parking lot as has been done for the Site 12 removal action. Mr. Bourgeois stated the area of Site 32 has a roadway along the back where trucks can enter and exit, and the trucks for this project will use that area. The excavated soil can remain at Site 32 and can be accessed by truck for disposal; since the site can be easily secured, there is no need to stockpile it elsewhere. Mr. Bourgeois added that the disposal trucks should not have to use Perimeter Road, so there will not be any impact to road access or traffic in areas used by the public.

Mr. Brennan asked if Shaw would also be removing Building 463 or would work around it. Mr. Bourgeois stated Building 463 is an old tear gas training building; he is unsure what the foundation of the structure is like. He said Shaw will probably work around Building 463, but that is still to be determined. If the building could be removed without significant cost, Shaw might remove it. At the very least, Shaw will collect side-wall samples underneath the foundation to determine whether there may be contamination there; if the samples are positive for COCs, the building might be removed.

Mr. Sullivan explained that all of the data collected during the Site 32 field event will be incorporated into the CERCLA documentation for Site 32.

Upcoming Documents and Field Schedule

Documents

Mr. Sullivan introduced Kevin Hoch (Tetra Tech) to review the Document Tracking Sheet (Attachment E) and the Field Schedule Sheet (Attachment F). Mr. Hoch referred to two handouts, and said he would present the documents that have comments due or would become available in the next 60 days:

- Final RI Report for Site 33, 13 April 2009
- Final Interim RI Report for Sites 8 and 29, 27 February 2009
- Final Revised RI for Site 28, 27 February 2009
- Final Feasibility Study (FS) for Site 21, 27 February 2009
- Draft Site 27 FS, comments due 27 February 2009

- Final Site 12 Soil Gas Investigation Technical Memorandum, 13 March 2009
- Final PCB Field Activity Report, 27 February 2009
- Draft PCB Soil Abatement Work Plan for Site 32, 19 February 2009, comments due 21 March 2009
- Draft Site 31 Remedial Action Work Plan, 31 March 2009
- Draft Island Times Newsletter No. 15, 27 February 2009, comments due 13 March 2009; Final to be issued 4 April 2009
- Final Site 12 Radiological Risk Assessment, 20 February 2009
- Draft 2009 Site Management Plan, 1 April 2009
- Final Site 30 Record of Decision (ROD), 10 April 2009
- Final Site 31 Record of Decision (ROD), 10 April 2009
- Draft RI for Site 11, comments due 17 February 2009

Field Schedule

Mr. Hoch noted there were three field activities on the schedule:

- Site 32 PCB Soil Abatement, beginning 4 May 2009
- Site 31 Remedial Action, beginning 5 July 2009
- Site 6 Groundwater Sampling, 17-18 March 2009

Mr. Sullivan noted there was a placeholder on the agenda to discuss why the Navy is preparing a Revised FS for Site 27. Mr. Sullivan explained this is a revision to a Draft FS that was previously submitted to the agencies and the RAB. That draft had three cleanup alternatives: (1) no action, (2) institutional controls, and (3) sediment removal. Based on subsequent investigation conducted after receiving comments on the draft FS, including a bathymetric survey and additional near-shore sediment sampling, it was determined that lead shot is accessible to diving ducks within 75 feet of the shoreline. As a result, the remedial action objectives and the cleanup alternatives were modified. A new cleanup alternative, focused dredging and backfill along the shoreline, has been added. Mr. Sullivan noted the Revised Draft FS for Site 27 was currently out for agency review.

August, October, and December 2008 RAB Meeting Minutes

Mr. Sullivan began with the August 2008 minutes. He noted they had been revised to clarify which contractor was doing the work, and were sent out as draft again for review via email. He noted there were also hard copies present at the meeting for those who needed a hard copy. Mr. Sullivan stated that, since community RAB member attendance was low at this meeting, the Navy would send an email request for comments on the August 2008 Revised Draft meeting minutes.

Mr. Sullivan then moved on to the December 2008 RAB meeting minutes, and noted those were mailed out in draft form prior to this meeting in the regular RAB mail packet. Mr. Brennan and Ms. Smith provided comments on the December minutes. Tommie Jean Damrel (Tetra Tech) stated she would revise the minutes to reflect their comments and email them to the RAB members for further comment, along with the Revised Draft August 2008 meeting minutes.

Mr. Sullivan moved on to the October 2008 meeting minutes. He noted they had not been distributed to the RAB yet, and asked for input from the RAB on whether the Navy should distribute the minutes as they are. Mr. Sullivan explained that a typical set of RAB meeting minutes is about 12 pages, but the October minutes are over 20 pages long. He noted there was a Treasure Island Development Authority (TIDA) presentation at the October meeting, which is the reason for the longer minutes. He stated the Navy and Tetra Tech could review the minutes again and trim them to get them closer to 12 pages to make them easier to review.

Ms. Smith said her preference would be to have the Navy distribute the October 2008 meeting minutes as they are, even though they are long. She would prefer to have a good record of the entire meeting, and since these notes will go into the administrative record, they should be complete. Mr. Sullivan agreed and stated the Navy would distribute the October 2008 RAB meeting minutes via email, along with the Revised Draft August 2008 meeting minutes and the Draft December 2008 meeting minutes with comments from tonight in track-changes mode.

Co-Chair Announcements

Mr. Sullivan said he had been invited to the TIDA board meeting, held the week prior to this RAB meeting. He noted the TIDA board meetings are monthly, on the second Wednesday of the month, at City Hall. Mr. Sullivan had given a similar presentation to TIDA four years earlier, so he updated that presentation for the board meeting. The purpose of his presentation was to provide an orientation for new members to the TIDA board, as well as to update other board members. He passed around a copy of his presentation and said he could make it available for RAB members if they would like a copy. Ms. Damrel stated she would reduce the size of the file and send a PDF copy to the RAB members via email.

BRAC Cleanup Team Update

Mr. Sullivan gave a brief update on the two BCT meetings held since the last RAB meeting, one in January and one in February. In January, the team talked about the Revised FS for Site 27 as well as their usual administrative items. In February, the BCT discussed the Site 12 removal action along with other field work, and then discussed this RAB meeting agenda and other administrative

items. Mr. Sullivan noted the team is planning its annual 2-day meeting, usually held in San Diego, where they hold extended discussions and thoroughly review the SMP.

Other Public Comments and Announcement

Mr. Brennan provided a brief update on the Citizen's Advisory Board (CAB), of which he is a member. He stated the CAB had not met since the last RAB meeting; however, they are planning to have an introductory meeting for new CAB members, since there are four new members who were elected in December 2008. Mr. Brennan stated the next meeting would likely be the first Tuesday in March (3 March 2009), but that people should check the CAB website (listed on the RAB agenda) to verify that.

Future Meeting Agenda Items

Mr. Sullivan stated that the next meeting is scheduled for Tuesday, 21 April 2009, at the Casa de la Vista. He asked if there were any specific requests for agenda items for that meeting; there were none. Mr. Sullivan stated the Navy would present whatever is timely. He added that he would discuss the agenda at the BCT meeting, and also with the RAB on their next RAB call. Mr. Sullivan reminded the group that the RAB calls are scheduled for the last Tuesday of the month prior to the RAB meeting, so that would be the last Tuesday in March, and the call-in information is ready and can be found on this RAB meeting agenda.

Mr. Sullivan noted the next BCT meeting will be 4 March 2009, not April as noted on the RAB agenda. Mr. Sullivan then thanked everyone for their attendance and closed the meeting.

February 2009 RAB Meeting Handouts

- Attachment A: NAVSTA TI RAB Meeting No. 140 Agenda, 17 February 2009
- Attachment B: Field Activities, Sites 21, 24, and Site 12 Arsenic
- Attachment C: 2008 Look Back/2009 Look Ahead, Environmental Cleanup Program Activities
- Attachment D: Proposed Soil Confirmation Sample Locations, Site 32 (map)
- Attachment E: Document Tracking Sheet, 17 February 2009
- Attachment F: Field Schedule, 17 February 2009

NAVAL STATION TREASURE ISLAND
ENVIRONMENTAL RESTORATION ADVISORY BOARD MEETING

Tuesday, 17 February 2009

7:00 PM.

Casa de la Vista (Building 271)

Treasure Island

MEETING NO. 140

- 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 - 7:25 **Field Activities Update**
(Sites 21 and 24, and Site 12 Arsenic in Groundwater)
Lead: Pete Bourgeois, Shaw Environmental & Infrastructure
- 7:25 - 7:35 **Site 12 (TI Housing) Removal Action and Access Update**
Lead: Pete Bourgeois, Shaw Environmental & Infrastructure
- 7:35 - 7:55 **2008 Look Back / 2009 Look Ahead**
Lead: Charles Perry, Navy Lead Remedial Project Manager
- 7:55 - 8:05 **Site 32 PCB Soil Abatement Workplan**
(Document issued mid February 2009, comments due mid March 2009)
Lead: Pete Bourgeois, Shaw Environmental & Infrastructure
- 8:05 - 8:10 **Upcoming Documents and Field Schedule**
Lead: Kevin Hoch, Tetra Tech EMI
- Site 27 FS Update
- 8:10 - 8:15 **August, October and December 2008 RAB Meeting Minutes**
Lead: James Sullivan, Navy Co-Chair
- 8:15 - 8:20 **Co-Chair Announcements**
Lead: Alice Pilram, Community Co-Chair
- 8:20 - 8:25 **BRAC Cleanup Team Update**
Lead: James Sullivan, Navy Co-Chair
- 8:25 - 8:30 **Other Public Comment and Announcements**
Lead: James Sullivan, Navy Co-Chair
- 8:30 - 8:35 **Future Meeting Agenda Items**
Lead: Navy and Community Co-Chairs



Naval Station Treasure Island

Field Activities

Site's 21, 24, and 12 Arsenic

February 17, 2009



Site 21

- Filled two 21,000 gallon tanks with purge water from specific wells on site.
- Mixed roughly 1,400 gallons of “Well-clear” (Lactic Acid) into the two tanks.
- Received the SDC-9 “bugs”.
- The Ph in the tanks was too acidic so “Sodium Hydroxide” was added to both tanks to bring the Ph closer to neutral.
- Began the injection of substrate into locations on site.

Site 21



*21,000 Gallon Holding Tank

*Containers Holding "Well-Clear" Lactic Acid

Site 21



*"Well-clear" being added to tank



*Drill Rig

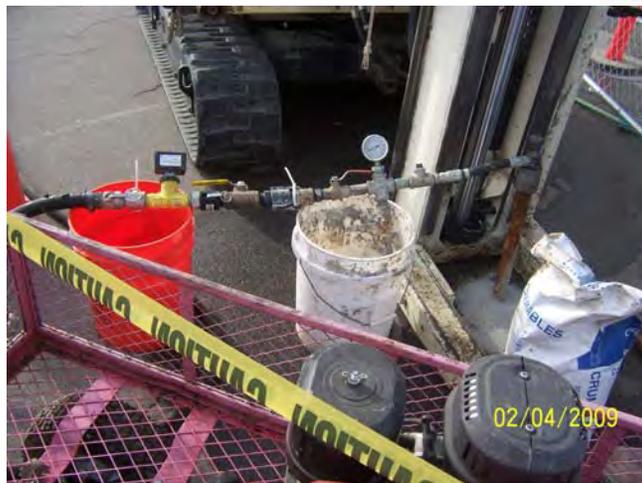
Site 21



*Sodium Hydroxide being added to tank

*Mixing of substrate in tanks prior to injection

Site 21



Substrate being injected into down hole drill rods

Site 24



- Construction of pipe sections for the injection and extraction wells.
- Reconstruction of the skid units that will run the system.

Site 24



Well pipe construction

Site 24



Pumps going down hole

Site 12 Arsenic



- Groundwater sampling completed 1/15/2009
- Installed 6 vadose zone wells 1/20/2009
- Performed purge volume test, sent summa canisters for analysis 1/29/2009
- Ambient air and vadose zone sampling 2/2/2009
- Sparge well tests completed 2/9/2009
- Conduct post-sparge ambient air and vadose zone sampling / currently being completed

Site 12 Arsenic



Well Development



Work Site

Site 12 Arsenic



Purge Volume test to determine how much purge prior to soil gas sampling.



Sparge test to determine zone of influence and optimal flow that can be pumped into the well.



Questions?



2008 Look Back 2009 Look Ahead Environmental Cleanup Program Activities

Presented by: James B. Sullivan, Navy BEC
NAVSTA TI RAB MEETING
February 17, 2009



2008 Look Back – Field Work by Site

Ongoing

- Site 12 Solid Waste Disposal Areas (SWDAs)
Non-time Critical Removal Action
- Site 12 Arsenic in Groundwater Pilot Study
- Sites 21 and 24 Treatability Studies

Completed

- Sites 6 and 12 Semi Annual Groundwater Monitoring
- Site 12 Soil Gas Sampling
- Site 27 Clipper Cove Near Shore Field Investigation
- Radiological Surveys at Buildings 233, 343, 344
- Basewide Polychlorinated Biphenyl (PCB) remedies





2008 Look Back – Final Documents by Site

- Sites 6 and 12 Sampling and Analysis Plan (SAP) for Groundwater Monitoring – October 2008
- Sites 6A and 25 2006 Annual Groundwater Status Report – April 2008
- Site 12 2006 Annual Groundwater Status Report – January 2008
- Site 12 Work Plan for Arsenic in Groundwater Pilot Study – October 2008
- Site 12 Final Soil Gas Investigation SAP – November 2008
- Site 12 2007 Groundwater Status Report – December 2008
- Sites 21 and 24 Treatability Study Work Plan – July 2008
- Site 24 RI/ Focused Feasibility Study (FS) – July 2008

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2008 Look Back – Final Documents by Site (continued)

- Site 27 Near Shore Field Investigation SAP – January 2008
- Site 30 Proposed Plan (PP) – September 2008
- Site 31 PP – September 2008
- Site 32 RI Report – October 2008
- PCB Summary Report (Phase I and II) – February 2008
- Site Management Plan (SMP) – November 2008
- Status Survey Reports for Buildings 233, 343, 344 – November 2008



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2008 Look Back – Community Outreach

- 6 Restoration Advisory Board Meetings
- Community Relations Plan 2008 Update – May 2008
- Island Times Newsletter, Volume 14 – Summer 2008
- One public meeting for the Sites 30 and 31 PPs – October 2008
- Navy booth at the TI Community Picnic – October 2008
- Updated Navy Website: www.bracpmo.navy.mil



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2009 Look Ahead – Field Work by Site

Ongoing

- Site 12 SWDAs Non-time Critical Removal Action – Ongoing
- Sites 21 and 24 Treatability Studies – Ongoing
- Arsenic in Groundwater Pilot Study – Ongoing

Upcoming in 2009

- Site 6 Data Gaps Investigation – December 2009
- Sites 6 and 12 Semi Annual Groundwater Monitoring – Starting March 2009
- Site 31 Remedial Action – Starting July 2009
- Site 32 TSCA PCB Removal Action – Starting May 2009



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2009 Look Ahead – Final Documents by Site

- Site 6 Data Gaps Investigation Workplan – December 2009
- Sites 6 and 12 Annual Groundwater Status Report – September 2009
- Sites 8 and 29 Interim Remedial Investigation (RI) Report – February 2009
- Site 11 RI Report – May 2009
- Site 12 SWDA Non Time-Critical Removal Action Final Post Construction Summary Report – November 2009
- Site 12 Report of Arsenic in Groundwater Pilot Study – September 2009
- Site 21 FS Report – February 2009
- Site 27 FS – May 2009
- Site 28 Revised RI Report – February 2009
- Site 30 Record of Decision (ROD)/Remedial Action Plan (RAP) – April 2009
- Site 31 ROD/RAP – April 2009
- Site 33 RI Report – April 2009
- 2009 SMP – July 2009

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2009 Look Ahead – Community Outreach

- 6 Restoration Advisory Board Meetings
- Island Times Newsletter, Volume 15 – April 2009
- General Environmental Fact Sheet Volume 5 – May 2009
- Island Times Newsletter, Volume 16 – September 2009
- Housing Area Open House/Information Session – Fall 2009
- Basewide Radiological Program Fact Sheet – Fall 2009
- Participation at the TI Community Picnic – October 2009
- Maintain Navy Website:
www.bracpmo.navy.mil



8



2009 Accomplishment – Early Delivery



- 1 new member to the Perry household – Delivered early, February 15, 2009

Introducing Dominic Keanu Perry,
Weighing 6 lbs and measuring 18 inches



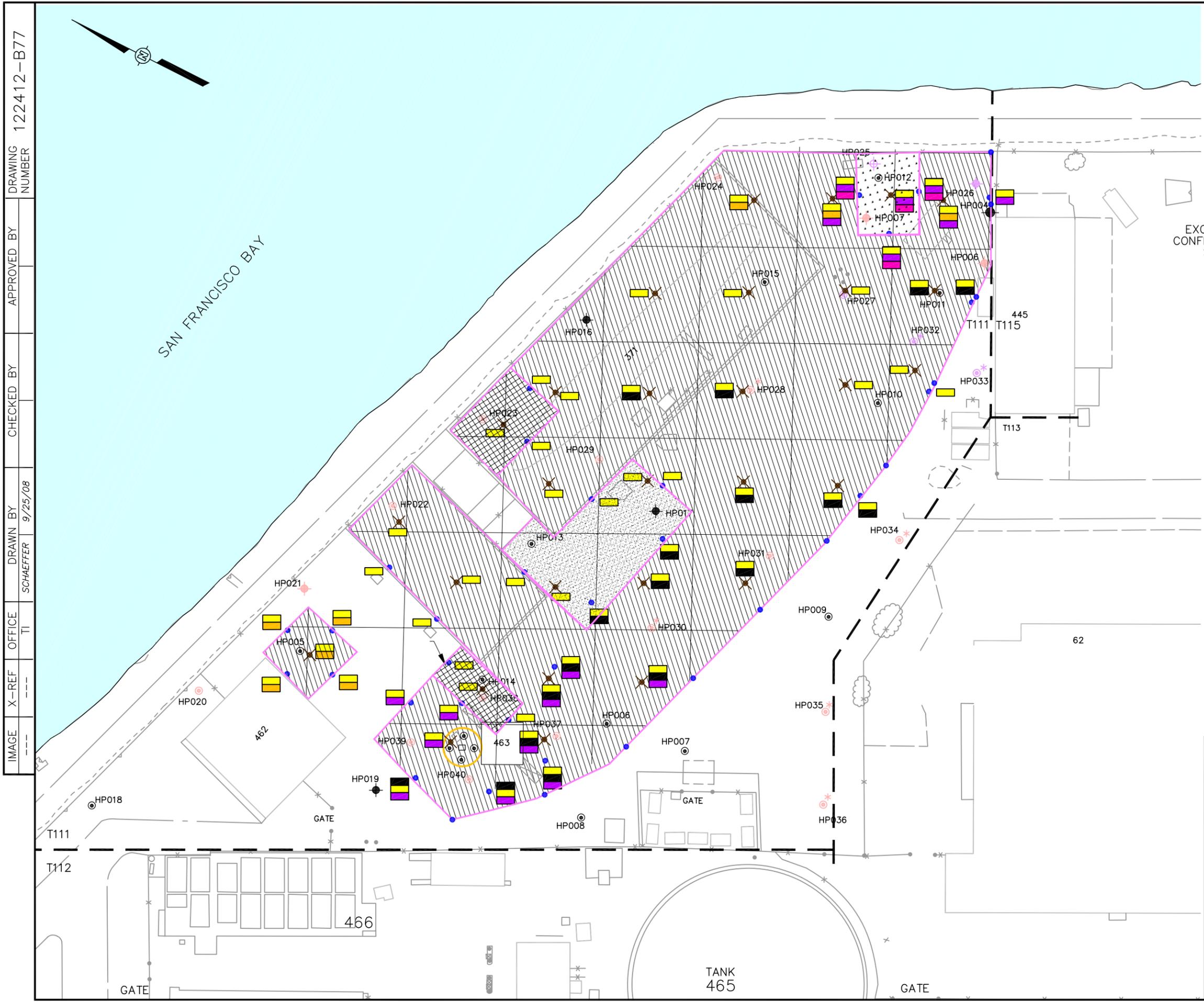
9



Questions?



10



DRAWING NUMBER 122412-B77
 APPROVED BY
 CHECKED BY
 DRAWN BY SCHAEFFER 9/25/08
 OFFICE TI
 X-REF
 IMAGE

- NOTES:**
- ALL DEPTHS ARE FEET BELOW BOTTOM OF ASPHALT/CONCRETE UNLESS OTHERWISE NOTED.
 - SIDEWALL SAMPLES WILL NOT BE COLLECTED ALONG THE EXCAVATION BOUNDARIES ADJACENT TO THE RIPRAP.

LEGEND

EXCAVATION CONFIRMATION SAMPLES

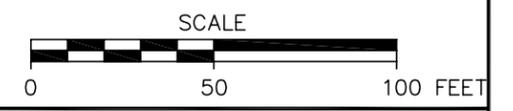
- APPROXIMATE PARCEL BOUNDARY
- BOTTOM SAMPLE
- SIDEWALL SAMPLE
- SAMPLE GRID BOUNDARY

SAMPLE TO BE ANALYZED FOR:

- METALS
- TPH
- PCB
- PESTICIDE
- DIOXIN

EXCAVATION AREAS

- 2' DEEP
- 4' DEEP
- 5' DEEP
- 9' DEEP



Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY
 SOUTHWEST DIVISION
 NAVAL FACILITIES ENGINEERING COMMAND
 SAN DIEGO, CALIFORNIA

FIGURE 7

PROPOSED
 SOIL CONFIRMATION SAMPLE LOCATIONS
 PARCEL T111, SITE 32
 TREASURE ISLAND
 SAN FRANCISCO, CALIFORNIA

**Naval Station Treasure Island
Environmental Cleanup Program
Document Tracking Sheet
February 2009 - July 2009**

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	Date Due	Agency Comments						Preliminary RTCs to Agencies	Resolve and Concur on RTCs	Internal Final to Navy	Navy Comments Due		Final to Agencies								
							DTSC	Water Board	EPA	TIDA	RAB	OTHER							Priority Level							
SulTech - Non Petroleum Related Documents																										
1	Site 33 Remedial Investigation Report RPM: Scott Anderson PM: Kevin Hoch	103	09/07/06	✓	10/16/06	✓	10/17/08	✓	01/06/09	✓	✓	✓	✓	✓	✓	02/20/09	03/06/09	03/20/09	03/30/09	04/13/09	Comments originally due 11/17/2008					
2	Sites 8, and 29 Interim RI Report RPM: James Whitcomb PM: John Warmerdam	104	07/23/07	✓	08/10/07	✓	11/19/07	✓	12/19/07	✓	X	✓	✓	✓	✓	09/22/08	✓	10/22/08	✓	12/24/08	✓	02/13/09	✓	02/27/09	Water Board deferred to DTSC by email 1/15/2008.	
3	Site 28 Revised Remedial Investigation Report RPM: James Whitcomb PM: John Warmerdam	104	NA	✓	NA	✓	NA	✓	NA	✓	X	✓	✓	✓	✓	09/22/08	✓	10/22/08	✓	12/31/08	✓	02/13/09	✓	02/27/09	Site 28 Revised RI was separated from Sites 8 and 29 Data Summary for the Internal Final and Final versions.	
4	Site 21 Feasibility Study RPM: Scott Anderson PM: Jean Michaels	144	7/28/08* 9/30/08**	✓	9/10/08* 10/28/08**	✓	11/10/08	✓	01/07/09	✓	✓	✓	✓	✓	✓	02/17/09	02/24/09	02/25/09	02/26/09	02/27/09	* Navy technical review ** Navy legal review Comments originally due 12/10/2008					
5	Site 27 Feasibility Study RPM: Charles Perry PM: Katie Henry	43	09/24/08	✓	11/07/08	✓	12/29/08	✓	02/27/09	✓	✓	✓	✓	✓	1	03/27/09	04/10/09	04/26/09	05/06/09	05/20/09	2.3.2009 DTSC submitted comments: additional comments from HERD and Fish and Game to follow.					
6	Soil Gas Investigation Tech Memo RPM: James Whitcomb PM: John Warmerdam	117	NA	✓	NA	✓	NA	✓	NA	✓	✓	✓	✓	✓	✓	NA	NA	02/20/09	03/06/09	03/13/09						
Sullivan Consulting Group - Non Petroleum Related Documents																										
	2007 Annual Groundwater Status Report, Sites 6 and 25 RPM: James Whitcomb Hannah Thompson	CLIN0002	06/20/08	✓	09/02/08	✓	09/05/08	✓	11/12/08	✓	X	X	X	✓	✓	12/02/08	✓	NA	✓	12/17/08	✓	12/27/08	✓	01/07/09	✓	Responses to Agency comments will be an Appendix in the Final GWSR.
Shaw Group																										
7	PCB Field Activity Report RPM: Scott Anderson PM: Pete Bourgeois	FZN1	08/05/08	✓	09/08/08	✓	09/11/08	✓	11/26/08	✓	X	X	✓	✓	✓	TBD	TBD	TBD	02/20/09	02/27/09	11.5.2008 EPA Defers to DTSC for comments.					
8	PCB Soil Abatement Parcel T-111/Site 32 Work Plan RPM: Scott Anderson PM: Pete Bourgeois	FZN1	11/24/08	✓	01/09/09	✓	02/19/09	✓	03/21/09	✓	✓	✓	✓	✓	3	TBD	TBD	TBD	TBD	04/19/09						
9	Site 31 Remedial Action Work Plan RPM: Charles Perry PM: Pete Bourgeois	FZN1	03/03/09	✓	03/17/09	✓	03/31/09	✓	04/30/09	✓	✓	✓	✓	✓	✓	TBD	TBD	05/30/09	06/09/09	03/23/09						

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Environmental Cleanup Program
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							DTSC	Water Board	EPA	TIDA	RAB	OTHER							Priority Level			
Tetra Tech EM Inc.																						
10	Island Times Newsletter #15 RPM: Charles Perry PM: Marcie Rash	FZN6	01/16/09	✓	02/20/09	02/27/09	03/13/09							NA	NA	03/20/09	03/30/09	04/06/09				
11	Fact Sheet: Radiological Program Update RPM: James Sullivan PM: Marcie Rash	FZN6	TBD		TBD	TBD	TBD							TBD	TBD	TBD	TBD	TBD				
12	Site 12 Radiological Risk Assessment RPM: James Whitcomb PM: Marcie Rash	FZN6	09/24/08	✓	10/07/08	✓	10/07/08	✓	10/31/08	X	X	X	✓		NA	NA	01/23/09	✓	01/30/09	✓	02/20/09	
13	2009 Site Management Plan RPM: Charles Perry PM: Marcie Rash	FZN6	03/04/09		03/18/09	04/01/09	05/01/09							05/27/09	06/03/09	07/06/09	07/16/09	07/26/09				
Barajas & Associates, Inc.																						
14	Site 30 Record of Decision RPM: Charles Perry PM: Margaret Berry	25	04/30/08	✓	08/18/08	✓	10/17/08	✓	12/02/08	✓	✓	✓	✓		02/18/09	02/25/09	03/27/09	04/03/09	04/10/09	11.24.2008 TIDA comments rec'd. 12.24.2008 DTSC comments rec'd.		
15	Site 31 Record of Decision RPM: Charles Perry PM: Margaret Berry	25	04/23/08	✓	09/11/08	✓	10/17/08	✓	12/02/08	✓	✓	✓	✓		02/18/09	02/25/09	03/27/09	04/03/09	04/10/09	11.24.2008 TIDA comments rec'd. 12.24.2008 DTSC comments rec'd.		
16	Site 11 Remedial Investigation Report RPM: Scott Anderson PM: Margaret Berry	24	01/18/08	✓	10/07/08	✓	11/06/08	✓	02/17/09	✓	✓		X	✓	2	TBD	TBD	TBD	TBD	TBD	Comments rec'd from Caltrans. TIDA will not comment (per G. Foote at Jan BC1) Comments originally due 12/12/08.	
Chadux and Tetra Tech JV																						
17	Site 12 Halyburton Court EE/CA RPM: James Whitcomb PM: John Warmerdam	44	TBD		TBD	TBD	TBD							TBD	TBD	TBD	TBD	TBD	TBD			
Trevet																						
18	2008 Site 6 & 12 Annual Groundwater Sampling Report RPM: James Whitcomb PM: Greg Alyanakian	9002	05/19/09		06/02/09	06/09/09	07/09/09							08/06/09	TBD	TBD	TBD	TBD	TBD			

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			Internal Draft Due to Navy	Navy Comments Due	Draft to Agencies	Agency Comments						Priority Level	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	RAB							

Abbreviations:

✓ Production or review of document is complete.

X Received notification of no comments or comments deferred to other agency.

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.

Caltrans= California Department of Transportation

CTO = Contract Task Order

DHS = Department of Health Services

DO = Delivery Order

DTSC = Department of Toxic Substances Control

EU = Exposure Unit

HSP = Health and Safety Plan

NA = Not Applicable

PCB = Polychlorinated Biphenyls

PM = Project Manager

RAB = Restoration Advisory Board

RPM = Remedial Project Manager

SAP = Sampling and Analysis Plan

TBD = To Be Determined

TIDA = Treasure Island Development Authority

Water Board = Regional Water Quality Control Board

**Naval Station Treasure Island
Navy Field Schedule
February 2009 - May 2009**

Item	Activity & Investigation Area	DTR #	Field Dates	Navy RPM	CTO/DO	PM	FTL	Complete
Shaw								
1	Site 24 Treatability Study Phase II <i>Site 24</i>	Doc N/A	Start: 07/21/08 Finish: TBD	Scott Anderson (619) 532-0938	FZN1	Pete Bourgeois (415) 277-6983	David Cacciatore (925) 288-2299	
2	Site 21 Pilot Treatability Study <i>Site 21</i>	Doc N/A	Start: 10/06/08 Finish: TBD	Scott Anderson (619) 532-0938	FZN1	Pete Bourgeois (415) 277-6983	Dan Leigh (925) 288-2193	
3	Non-Time Critical Removal Action <i>Site 12</i>	Doc N/A	Start: 02/26/07 Finish: 06/30/09	James Whitcomb (619) 532-0936	10	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
4	Arsenic in Groundwater Pilot Study <i>Site 12</i>	Doc N/A	Start: 11/10/08 Finish: TBD	Scott Anderson (619) 532-0938	FZN1	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
5	PCB Soil Abatement Parcel T-111/Site 32 <i>Site 32</i>	Doc 8	Start: 05/04/09 Finish: TBD	Scott Anderson (619) 532-0938	FZN1	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
6	Site 31 Remedial Action <i>Site 31</i>	Doc 9	Start: 07/05/09 Finish: TBD	Charles Perry (619) 532-0911	FZN1	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
TREVET								
7	Site 6 Groundwater Sampling <i>Site 6</i>	Doc N/A	Start: 03/17/09 Finish: 03/18/09	James Whitcomb (619) 532-0936	CLIN	Greg Alyanakian (858) 869-3110	Greg Alyanakian (858) 869-3110	
EMS								
8	Site 12 Removal Action Soil Sampling <i>Site 12</i>	Doc N/A	Start: 12/05/07 Finish: TBD	James Whitcomb (619) 532-0936	NA	Dawn Roarty (916) 919-4785	Salem Attiga (925) 939-0687	

CTO - Contract Task Order

DO - Delivery Order

DTR # - Denotes document tracking reference. The number listed corresponds to the associated documentation listed on the Document Tracking Sheet

FTL - Field team lead

N/A - not applicable, there is no associated documentation listed on the DTS.

PCB = Polychlorinated Biphenyls

RPM - Remedial Project Manager

TBD - To Be Determined

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.