Final
MEETING MINUTES
RESTORATION ADVISORY BOARD
NAVAL STATION TREASURE ISLAND
21 February 2006
Meeting Number 122

Community RAB Members in attendance:

John Gee	Anthony Fo	Dale Smith

Regulatory Agency, City and Navy RAB Members in attendance:
James Sullivan (Navy)

Other Agency, Navy Staff and Consultant Representatives in attendance:

Marcie Rash	Jim Whitcomb	Deanna Rhoades
Tommie Jean Damrel	Bob O'Brien	La Rae Landers
Stan Clarke	Kevin Hoch	Reginald Hairston
Marc McDonald	Jill Votaw	Doug Gilkey

RAB Support from ITSI:

Steve Edde	Joni Jorgensen-Risk

Public Guests
Sophia Wann

Welcome Remarks and Introductions

James Sullivan (Base Realignment and Closure [BRAC] Environmental Coordinator [BEC]) opened the 21 February 2006 meeting at 7:20 P.M. at the Casa de la Vista (Building 271).

Mr. Sullivan welcomed those in attendance, and apologized for the late start; they were awaiting the arrival of the stenographer. He elected to start the meeting without the stenographer. Mr. Sullivan pointed out there were extra copies of the meeting agenda available at the back of the room. There were no changes or comments on the agenda so Mr. Sullivan moved directly to the next agenda item.

Public Comment and Announcements

Mr. Sullivan stated that there were two public comment periods included on the agenda to afford members of the public the opportunity to comment on the Navy's environmental program at Treasure Island (TI). He added that the public was also welcome to comment during the course of the meeting.

Mr. Sullivan introduced Doug Gilkey, who has been the Navy BRAC Closure Manager (BCM) for Treasure Island since last summer, and Jill Votaw, Navy Public Affairs. He added that Hunters Point and Treasure Island are now part of the same Navy team for BRAC.

There were no comments or announcements so Mr. Sullivan moved directly to the next agenda item.

Field Activities Update (Sites 10, 32, 21, and 24)

Mr. Sullivan introduced Stan Clarke, Shaw Environment and Infrastructure (Shaw E&I), to provide the field activities update.

Mr. Clarke stated that he would be providing an update on the activities that have been taking place over the last few months at Sites 10, 32, 21, and 24. He identified the former uses of each site; Site 21 was the vessel waste oil recovery facility; Site 24 was the former dry cleaning facility; Site 10 was the Bus Painting Shop; and Site 32 was the former training and storage facility.

At Site 21, near the southern edge of the island, there was a historic parts cleaner tank that has been identified as the source of a chlorinated ethenes plume leading from the area of the former parts cleaning tank, to the southeast, in the area of the current Treasure Island Sailing Club. Mr. Clarke noted that the chlorinated ethenes are in concentrations greater than 100 micrograms per liter (µg/l). The Navy has been injecting micro-organisms (capable of respirating chlorinated ethenes to harmless ethenes) into 45 injection points at the site. In addition, they have installed a permeable reactive barrier (PRB) and are injecting EHC, which includes zero-valent iron and other organic materials.

The field effort began in September. Results from groundwater samples collected from monitoring wells (MW)-2, 9, and 7 indicate that degradation of the ethenes is taking place. They are not yet seeing the degradation at MW-3, and the next step there will be treatment. Part of the problem in the area of MW-3 is that the sailing club facility's recent deck installation hindered effective treatment. Further activities are proposed to install three extraction wells south of the TI Sailing Club, for the purpose of promoting migration of the substrate under the deck of the sailing club office facility. The wells will be used to extract site groundwater to use for injection because the water is already anaerobic and therefore more efficient. Additional substrate will then be injected into the existing 45 injection points.

The Pilot Study at Site 24 has proven very successful and the Navy is making arrangements to expand the study in order to treat the entire plume. They are treating the study area with 37 extraction wells, half as many injection wells, and bio barrier wells (to maintain the plume). Mr. Clarke stated that most of the

chlorinated ethenes are no longer present; however, there are an appreciable amount at the southern perimeter. The Navy is making plans to extract groundwater to "pull" water back into the plume limits at the southern boundary, where they will continue to recirculate the groundwater and inject additional substrate. They will do this by turning some extraction wells into injection wells and visa versa. As always, they will continue monitoring the study area.

Mr. Clarke stated that Sites 10 and 32 are located in the northeast corner of the island. The Navy recently completed some exploration trenches and dioxin sampling at the sites. Dioxins at Site 10 were originally identified during the investigation at Site 14/22 when burnt material was uncovered on the northern sidewall. The sidewall sampling was continued at that time to explore for the limits of the burnt debris. Dioxin results ranged from 0.02 to 10.6 parts per trillion (ppt); with an average of 2.05 ppt. Site 32 is the area of the USS Pandemonium mock-up where remnants of that mock-up remain. According to Mr. Clarke, samples collected in 2003 showed up to 89 ppt of total dioxins in the top one foot of soil. Samples collected in November 2005 showed up to 69 ppt in the top 1 ½ feet of soil, and between 0.0532 and 3.3 ppt at about three feet. The next step for Site 32 is to use these data in the preparation of a risk assessment.

Mr. Clarke asked if there were any questions. Dale Smith stated that Figure 3, Site 10, did not include a scale, and for that reason she had no idea the size of the trench; considering it to be 15 feet wide. She asked that language be modified to clarify the width of the trench. Mr. Sullivan indicated that a scale would be added to the figure and the modification to the language would include the general understanding that the trenches are not necessarily "backhoe wide."

Historical Radiological Assessment Report (HRA)

Mr. Sullivan introduced Jim Whitcomb, Navy Remedial Project Manager (RPM), to provide the update on the Final Historical Radiological Assessment (HRA). Mr. Whitcomb stated that the HRA, prepared by Weston Solutions, had been finalized. The purpose of the HRA is to identify potential, likely, or known sources of radioactive material and radioactive contamination based on existing or derived information. It identifies sites that need further action and provides an initial classification of sites as either "impacted" or "non-impacted," and provides information useful to scoping and characterization surveys. The historical uses of all known buildings both past and present were reviewed for the HRA.

Mr. Whitcomb stated that the HRA effort was initiated in August 2004 and included a briefing to the BRAC Closure Team (BCT) the following month. The research effort included numerous visits to TI; records reviews at the National

Archives in San Bruno, Naval Historical Center in Washington, D.C., Navy's Radiological Affairs Support Office (RASO) headquarters in Yorktown, VA., Department of Energy (DOE)/Bechtel Reading Room (on-line source), and also the Tetra Tech Electronic Library. In addition, the Navy posted a public notice in the local newspapers in an effort to solicit historical information from the general public. A toll-free call-in number was available for the public to call if they had any historical knowledge/information regarding radiological operations at TI.

According to Mr. Whitcomb, the initial potentially impacted sites identified in September 2004, the start of the HRA, consisted of Site 2-Radiation Training Area, New Ship Mockup Area, RADIAC Training Area-Buildings, 233, 343 and 344, former Pier(s), and Site 12 Installation Restoration (IR) Solid Waste Disposal Areas. Once the HRA investigation had been completed, five areas had been identified as impacted: Buildings 233, 343, 344; IR Site 12 Solid Waste Disposal Areas; and Building 233 sewer drains.

The findings for Building 233 include a spill of 50 milligrams (mg) of radium sulfate in 1950 during classroom training on instrument calibration. According to historical records, the radioactive contamination was cleaned up and disposed of off TI. Surveys were conducted following the clean up activities that indicate that the Navy effectively decontaminated the affected areas to the existing standards; however, current standards are more stringent.

Building 343 is one of three buildings of the RADIAC (the radiation detection, indication, and computation instrument) School that operated from the 1950s to the 1970s. According to Mr. Whitcomb, the RADIAC School was used to train students in the use and maintenance of radiation detection equipment. After the closure of the RADIAC School, a closeout survey was performed by the Navy. The results of the survey at Building 343 found that two alpha wipe survey points exceeded release limits. Although the survey points were decontaminated as a result of the detections, the Navy later determined that the storeroom investigation was not complete and further sampling was needed to complete closure of the storeroom.

According to Mr. Whitcomb, Building 344 is a small (15 feet x 17 feet) concrete building storage vault built in 1951. The building was used to store portable radioactive sources used by the RADIAC facility. In 1988, during a routine wipe survey of the vault, the interior of two waste containers were found to be contaminated from a leaking cesium/barium mini-generator kit. Additional surveys of the kit storage area, the floor, and shelves in the vault revealed no other contamination. Cleanup was completed with off-site disposal of the waste containers and the mini-generator kit was disposed off-site as radioactive waste.

Mr. Whitcomb stated that there have been four solid waste disposal areas identified within IR Site 12. Although there has been no evidence indicating that radioluminescent devices were disposed in any of the areas, the Navy is being prudent in their investigation and recommending radiological surveys during remedial or removal actions in those areas.

According to the historical records reviewed, immediately following the 1950 radium sulfate spill in Building 233, wash water containing radioactive material may have been introduced to the building drainage system during initial personnel decontamination. A decontamination station was setup during the decontamination of Building 233 to manage decontamination waste during the cleanup activities.

The Navy is proposing the following recommended actions based on the findings of the HRA:

- **Building 233**—characterization surveys of both floors and crawl space under the floor
- **Building 343**—final status survey of storeroom
- **Building 344**—final status survey
- **IR Site 12**—radiological monitoring during excavation of solid waste disposal areas
- **Building 233 Sewer Drain**—scoping survey of upstairs drain points, sample from first downstream manhole outside building

Mr. Whitcomb added that there was a list of HRA frequently asked questions located on the table in the back of the room and asked that attendees review those questions at their leisure. If anyone had any additional questions, he asked that they either talk with him or Mr. O'Brien. He then opened the floor to questions. Doug Gilkey asked if there were any calls to the toll-free number, to which Mr. O'Brien responded that they received only a few calls. Mr. Sullivan added that additional interviews were identified through those few inquiries.

Ms. Smith asked if the Navy hadn't already completed some radiological investigations at TI. Mr. Sullivan responded that, back in 2003, while completing some site wide trenching at IR Site 12, the Navy elected to add some radiological screening to the work plan. They completed over 700 feet of trenching, examined them both physically and with instruments, and did not observe any items of concern or radiological readings above background. The results of the radiological screening at Site 12 will go into the Site 12 Remedial Investigation (RI) Report. He added that the RAB technical subcommittee will be getting a copy of the HRA, as will the Information Repository, and added that if any RAB members were interested, he would be happy to provide them with a copy.

Halyburton Court (Site 12 TI Housing) Soil Gas Investigation

Mr. Sullivan introduced Kevin Hoch with Tetra Tech (TtEMI) to provide the update on the soil gas investigation at Site 12 TI Housing. Mr. Hoch opened his presentation by stating that the purpose of the investigation at Halyburton Court was to collect additional sampling to determine if polychlorinated biphenyls (PCBs) as vapor are present below the building slabs or within utility corridors at concentrations that could pose an unacceptable risk to human health within the buildings.

The investigation was implemented on 12 December 2005 with the collection of 14 soil samples beneath the slabs in units 1100C; 1102A, C, E, F, and H: 1104A, C, E, and F; and 1106A, C, and D. Concurrent with the soil sampling, temporary soil-gas monitoring wells were installed. The Navy had proposed collecting soil-gas samples from the utility lines adjacent to units 1100C and 1102A, G, and E; however, due to the fact that these areas were backfilled with clean material following the excavation, the samples were not collected. On 20 December 2005, seven soil-gas samples were collected beneath units 1100C; 1102A, C, E, F, and H; and 1106A. He added that some of the proposed sample locations could not be sampled due to shallow groundwater. They have gone back to review those sites, and the groundwater is still too shallow for sample collection.

The sampling results for soil identified PCBs in 13 of 14 sub-slab samples at concentrations ranging from 0.009 to 1.5 parts per million (ppm). Two of the sampling results (from units 1104F and 1106C) exceeded the site screening criterion of 1 ppm. The soil-gas results will not be available until early March 2006. Mr. Hoch provided some photographs and figures of the field sampling effort. The photographs depicted the installation of the semi-permanent wells with the sampling probe left in-place, allowing for re-sampling if needed.

The path forward includes soil-gas sample results next month. Once the groundwater recedes, the remaining soil-gas samples will be collected. Based on the results of the soil-gas sampling and following the tiered approach, additional samples may be collected. Once the field effort is completed, the Halyburton Court investigation will be summarized in a technical memorandum, with the results also summarized in the Site 12 RI Report. He opened the floor to questions, of which there were none. Mr. Sullivan added that the team will provide an update at future RAB meetings of the soil-gas results.

Site 27 Clipper Cove Update

Mr. Sullivan introduced La Rae Landers, Project Manager (PM) for the Clipper Cove Site, and Lead Remedial PM. Ms. Landers reviewed the recent history for IR Site 27 that included:

- Revised Draft Feasibility Study (FS) in December 2004
- Regulatory comments received on revised response to comments May 2005
- Draft Sediment Deposition Point Paper and BCT technical meeting to discuss the paper in July 2005
- Hydrographic Survey September 2005
- Revised Sediment Deposition Point Paper November 2005
- BCT technical meeting to discuss the revised Sediment Deposition Point Paper January 2006

She continued, stating that hydrographic surveys conducted in Clipper Cover from 1985, 1989, 2002, and 2005 were compared to identify areas of net sediment deposition or erosion in the former skeet range area. The Navy was able to compare four transects that ran the length of the skeet range for comparison purposes (50, 200, 350, and 550 feet from the shoreline). In addition, depth soundings were evaluated in 50-foot increments for all transects.

Results of the hydrographic survey evaluation indicated that, with the exception of 150 feet from the shoreline, the estimated sediment accumulation rate between 1989 and 2005 is greater than 1.5 inches per year, with a total deposition of more than 2 feet. This deposition is considered sufficient and protective of the diving duck. Within 150 feet from the shoreline, the data show steady state conditions, with the depth to sediment remaining relatively constant over the past 20 years. Possible contributing factors to the steady state are the sudden drop-off of the shoreline, and the effects of wave and current action in shallower water depths.

Based on the results of the evaluation, the Navy is recommending an additional sediment investigation for lead shot within the area 150 feet from the shoreline. Because sediment deposition is ongoing for the remainder of IR Site 27, no additional lead shot sediment investigation is proposed for the area beyond 150 feet.

Ms. Landers stated that the Navy would be working with the BCT and RAB members to develop a sediment-sampling plan and hopes to be conducting sampling for lead shot in Fall 2006. The results of that sampling will be summarized in a technical memorandum in Winter 2006. The FS schedule is dependent upon the results of the sediment sampling. Ms. Landers asked if there were any questions. There were no questions.

Site 30 (Day Care Center) Feasibility Study (FS)

Prior to turning the floor over to Deanna Rhoades, Mr. Sullivan stated that the Navy had completed the RI at Site 30 and was in the process of scoping the Feasibility Study (FS) with the BCT. He then introduced Ms. Rhoades, from Caltech, to provide the presentation on the Day Care Center.

Looking at current and future use: Ms. Rhoades identified the current use of IR Site 30 as a daycare center that occupies Building 502. The building itself is surrounded by paved and landscaped areas and located within a fenced area. The future use for the site is expected to remain as a daycare center.

The Human Health Risk Assessment evaluated the following exposure pathways:

- School child/school staff/gardener
- Industrial/commercial/utility worker
- Construction worker
- Residential reuse

The Risk Management Range for cancer risk was between one in ten thousand and one in one million.

Ms. Rhoades stated that the current use scenario identified potential cancer risk estimates below the risk management range for daycare center children and staff exposed to soil at the site. The hypothetical future use scenario identified potential cancer risk estimates for commercial/industrial workers and residents exposed to the soil at the site within the risk management range. All current and future use scenarios are at or below the non-cancer risk hazard index of 1.

Ms. Rhoades stated that the contaminant of concern (COC) at the site for commercial and/or industrial workers and residents is dioxin. The objective at the site is the protection of human health. The Navy's remedial action objective is to prevent ingestion/direct contact with soils beneath the foundation of Building 502 that could potentially contain dioxin toxicity equivalents greater than the ambient level of 12 nanograms per kilogram (ng/kg). The remedial options initially evaluated by the Navy include no action, institutional controls, containment (engineered barriers), and building demolition and soil excavation.

The first alternative considered for further evaluation is No Action, which is used as a baseline to compare the other alternatives. Also included for evaluation, the use of Institutional Controls, which would include maintaining the building foundation as a protective barrier. This would require routine inspections and maintenance as needed to prevent exposure to soils. This would also require yearly reporting and 5-year reviews. A demolition, excavation, and off-site

disposal alternative is also evaluated. This would include the demolition of the building followed by sampling of soils beneath the building, excavation of contaminated soil, backfilling with clean soil, and off-site disposal of contaminated soil at a licensed disposal facility.

The cost estimating approach for Institutional Controls will include maintenance costs and estimates based on Navy and Caltech experience to include costing of inspection, periodic maintenance, annual reporting, and 5-year reviews. The cost estimating approach for Demolition, Excavation, and Off-Site Disposal, would include demolition costs, soil sampling costs, excavation of soils to a depth of 6 feet, disposal, and backfill costs.

Ms. Rhoades concluded her presentation by providing the FS schedule:

- 15 March 06—internal Navy review
- 10 May 06—Navy legal review
- 12 July 06—BRAC Cleanup Team (BCT) review of Draft FS
- 2 October 06—response to comments from BCT technical meeting
- 22 November 06—Final FS

She asked if there were any questions. John Gee asked why dioxin was the only COC being evaluated. Mr. Hoch responded that, under the RI phase, dioxins were the only exceedences at the site that posed a potential risk. Ms. Smith asked if dioxins weren't considered fairly stable in soil, which was confirmed. She asked what the general timeframe was for institutional controls to be in place. Ms. Rhoades responded that 30 years is typical. Ms. Smith asked about a RAB review of the FS, to which Mr. Sullivan responded that the RAB and BCT reviews would be concurrent. Marc McDonald asked about the protection of construction workers that might be working on a break in a waterline at the site. He wondered, if institutional controls were implemented, would those workers be protected. Ms. Landers responded that, based on the "not knowing characterization," the Navy was not able to characterize the area below the building and are proposing a conservative scenario; the remainder of the site is fully characterized and considered protective of those workers.

Upcoming Documents and Field Schedule

Documents

Reading from the Document Tracking Sheet, Marcie Rash, TtEMI, stated that:

- Previous Investigative Activities within the Lake of the Nations Footprint Technical Memorandum would be going final 7 March.
- The Environmental Closeout Strategy 2006 Update would be going to the agencies for review 9 April.
- The Site 12 Risk Assessment/RI Scoping Work Plan would be going final 3 March.

- The Findings of Suitability to Transfer (FOST) documents for Treasure Island and for Yerba Buena Island are final and are awaiting signatures from the Navy.
- They are finishing up on the 30-day review cycle for the Draft Sites 8, 28, and 29 RI
- There is a Winter Edition Island Times Newsletter going final 03 March.
- The Community Relations Plan (CRP) 2006 Update will be issued draft for agency review 05 April.
- The PCB Finding of Suitability for Early Transfer (FOSET) Sampling Plan will be finalized 03 April, and field work will begin immediately thereafter.
- The Sites 10 and 32 Field Work Summary Technical Memorandum will be finalized 28 February.
- The HRA Fact Sheet will be going final 04 April.

Mr. Sullivan added that the CRP will include a few minor updates to the 2003 document and distribution of the document will be electronic.

Field Schedule
Ms. Rash stated the Navy was on track to start field work for the PCB sampling in the FOSET Areas beginning 04 April. The Site 21 Pilot Treatability Study and Site 24 Treatability Study Phase II will be wrapping up 28 February due to the contract ending. The well demolition at Sites 25, D1-B, 6, and Building 1, under the Petroleum Program, will start up 20 February. Finally, lead-based paint abatement at Quarters 2-7, 240, 83, and 61 will be completed 24 February. Ms. Rash added that the Site 12 soil-gas sampling is ongoing; there is no finish date scheduled.

Ms. Rash asked if there were any questions; there were none.

December 2005 Meeting Minutes

Mr. Sullivan opened the floor for discussion of the December meeting minutes. Ms. Smith requested a correction to capitalize the "W" in web site. Mr. Sullivan suggested that the RAB members provide Alice Pilram an opportunity to comment on the minutes since she was not present at the meeting. All agreed, and there was a motion to accept the minutes following the change to web and any additional changes that Ms. Pilram might request. The motion was accepted.

Co-Chair Announcements

Mr. Sullivan turned the discussion over to Mr. Gee, who was standing-in for Ms. Pilram. Mr. Gee did not have any announcements.

BRAC Cleanup Team Update

Mr. Sullivan stated that they had had two BCT meetings since the last RAB meeting. January's meeting included a review of the data collected at Sites 10 and 32, and an update on the treatability studies at Sites 21 and 24. In addition, the team discussed the updates to the CRP that included the Site 12 Housing Area, and the outreach effort that will be taking place with the distribution of the Site 12 Fact Sheet. They also made arrangements for the February RAB meeting.

The February meeting included a review of Sites 21 and 24 treatability studies, the response to comments on the Site 31 RI, an update on the Site 12 RI that included a review of the work plan, the scoping update of the CRP, and preparations for the February RAB meeting.

The next BCT meeting is scheduled for the first Tuesday in March at the TtEMI offices in San Francisco.

Other Public Comment and Announcements

Mr. Sullivan opened the floor to any public comments or announcements; there were none. He added that Nathan Brennan usually provides an update on the Citizens Advisory Board (CAB) at this time, but he was unable to attend. Mr. Sullivan stated that during the monthly conference call, Mr. Brennan offered to obtain copies of TI development plans from the developers, and he had six copies available for community members.

Future Meeting Agenda Items

Mr. Sullivan asked if there were any agenda items anyone would like to see included at the next RAB. He is corresponding with Jack Sylvan from the City and has asked Mr. Sylvan to provide an update on the Treasure Island property transfer when it is appropriate.

Closing Remarks/End of Meeting

Mr. Sullivan stated the next RAB meeting will be 18 April. He reminded those in attendance to check the CAB Web site and stated the next BCT meeting was scheduled for 7 March. He then thanked everyone for coming and brought the meeting to a close. Mr. Sullivan adjourned the meeting at 8:54 p.m.

February 2006 RAB Meeting Handouts

- Naval Station Treasure Island Sites 21, 24, 10, and 32, RAB Briefing on Field Activities by Stan Clarke, P.E., February 21, 2006
- Installation Restoration Site 30 Daycare Center, Feasibility Study Technical Scoping Presentation, Naval Station Treasure Island, La Rae Landers, Navy RPM, February 21, 2006
- Update: Halyburton Court Additional Polychlorinated Biphenyl Investigation, February 21, 2006, NAVSTA Treasure Island RAB Meeting
- Total PCB Soil Sample Results Halyburton Court, Naval Station Treasure Island, U.S. Navy, BRAC PMO West, San Diego, CA
- IR Site 27 Clipper Cove Skeet Range-Sep 2005 Hydrographic Survey, Naval Station Treasure Island, San Francisco, CA, February 21, 2006
- Final Historical Radiological Assessment, Former Naval Station Treasure Island, February 21, 2006, Prepared by: Weston Solutions Inc., Mare Island Office, Vallejo, CA.
- Former Naval Station Treasure Island, Historical Radiological Assessment (HRA) Frequently Asked Questions
- Document Tracking Sheet
- Navy Field Schedule