



Island Times

Environmental Investigation and Cleanup News Former Naval Station Treasure Island

Summer 2008, Newsletter No. 14

www.bracpmo.navy.mil

ENVIRONMENTAL PROGRAM

The Navy developed this newsletter to update the community on the environmental program at former Naval Station Treasure Island (NAVSTA TI). NAVSTA TI encompasses both Treasure Island (TI) and Yerba Buena Island (YBI). The Navy established the Installation Restoration (IR) Program in 1981 to investigate and cleanup sites under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Environmental investigations and cleanup under the IR Program and other programs began on NAVSTA TI in the mid-1980s and continue today. The Navy has identified 33 IR sites on TI and YBI and is following the regulatory process of investigating and cleaning up each open site.

Please share this information with members of your family, friends, and representatives from any local organizations that may be interested. Individuals, businesses, and organizations can receive future newsletters by completing and returning the mailing coupon on the back page of this newsletter. We also welcome your comments on the newsletter.

WHAT IS HAPPENING IN THE HOUSING AREA?

The Navy and their contractor, The Shaw Group (Shaw), continue the Non-Time Critical Removal Action in portions of the TI Housing Area (Site 12). The purpose of the removal action is to excavate the areas mostly behind the green fences, referred to as the Solid Waste

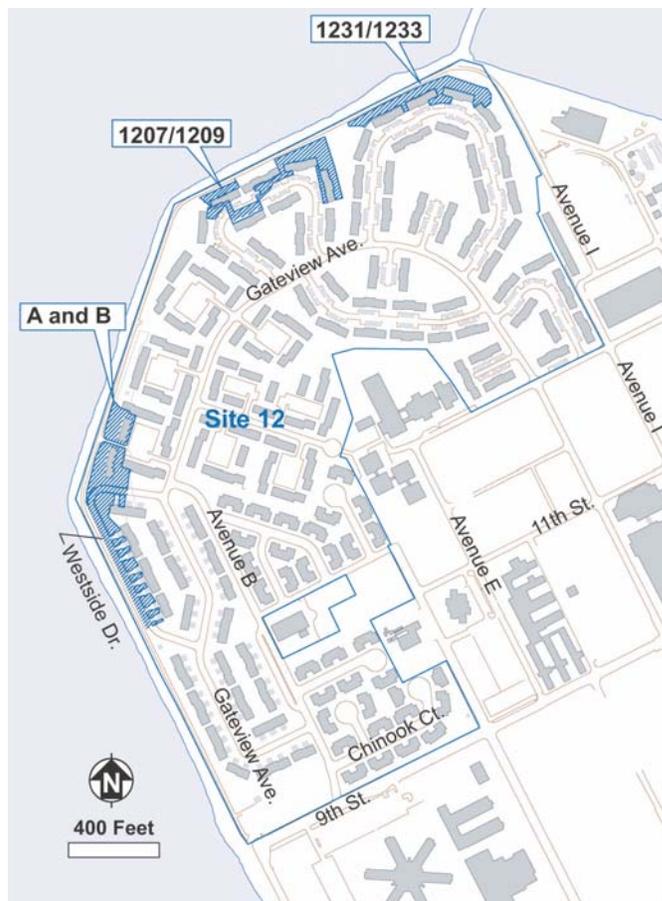
Disposal Areas (SWDA). See map at right for SWDA locations. The potential contaminant of concern in these areas is



Excavated Soil Being Loaded for Off-Site Disposal

lead in the soil resulting from lead-based paint and old construction debris, along with polychlorinated biphenyls (PCBs) from electrical and hydraulic equipment fluids, and polycyclic aromatic hydrocarbons (PAHs) and dioxins from incineration of debris. During the removal action, the Navy is also scanning the soil for radiological detections, as per the recommendations in the basewide Historical Radiological Assessment, which is a document that was finalized in 2005. (The Historical Radiological Assessment can be found in the Information Repositories. See page 6 for locations.) Approximately 90 coin size items containing radium have been found while excavating soil within the SWDAs. When the radiological items are found, they are analyzed for radium 226 to determine the level of contamination and shipped off-site for disposal.

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The SWDAs in the Housing Area

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To date, roughly 28,000 tons of soil have been removed and shipped off the island during this removal action. There are about 3,500 tons stockpiled on a nearby site that will be transported off site before the project is complete. To remove the soils, the Navy may have additional road closures on Perimeter Road, and will keep residents updated on all road closure schedules.

Excavation efforts at SWDAs 1207/1209 and 1231/1233 were completed in November 2007 and those areas have been restored with new groundcover, sidewalks, or streets as applicable. Although the excavation efforts have been completed in these areas the Navy will be conducting additional radiological surveys in areas immediately adjacent to SWDAs 1207/1209 and 1231/1233. While the SWDAs were well defined and visible in historical photos, the Navy is using these extra scans to verify there are no risks to residents. The Navy is working with Treasure Island Development Authority (TIDA) and the John Stewart Company to determine when buildings that are vacant will be ready to reoccupy.

The Navy began work in SWDAs A and B in November 2007, and expects to complete that work, and the remainder of the project in SWDAs A and B by October 2008. Additional radiological surveys will also be conducted in areas immediately adjacent to SWDAs A and B. Access to the areas at the northeast corner of TI, including the boat ramp area, could be affected beyond the October 2008 timeframe, depending on when all of the contaminated soil in bins is transported off the island. The Navy expects to complete the transport of all contaminated soil by November/December 2008.

Also of note in the Housing Area (Site 12) is the arsenic in groundwater study. See the article on page 3 for details.

The Navy will continue to keep residents informed of any field work updates and answer any questions about the Housing Area Non-Time Critical Removal Action activities. If you have any comments or questions, please contact James Sullivan at (619) 532-0966 or send an e-mail to james.b.sullivan2@navy.mil. You can also attend our bi-monthly Restoration Advisory Board (RAB) meetings to get updates on the Housing Area. See page 6 for the RAB meeting details.

PROFILE: CONTRACTOR MARCIE RASH

Marcie Rash sat down with the *Island Times* recently to talk about her role as a consultant to the NAVSTA TI Navy team and to talk about the plans for cleanup and what has been done so far.

Island Times: Marcie, what is your role on the NAVSTA TI project?

Marcie: My role on the team is the Installation Coordinator. I strategize with the Navy Remedial Project Managers and other consultants to keep the environmental program moving forward. A key part of this role is to maintain and regularly update a document called the Site Management Plan (SMP) that contains the schedule and path forward for all of the environmental sites and programs at NAVSTA TI.

Island Times: How long have you been working on the NAVSTA TI project?

Marcie: I've been with Tetra Tech EM Inc. since 1995. I've been working on the NAVSTA TI project since early 2001.

Island Times: Tell us more about the SMP*. How is that document used, and is it something that the general public would benefit from reading?

Marcie: The SMP could be called the encyclopedia of all of the environmental sites and programs at NAVSTA TI. It is also a key tool in helping the Navy and the regulatory agencies prioritize and plan their funding and is updated annually. It provides general information about the various environmental programs and specific information about all of the sites such as history, contaminants of concern, and current status. In addition, the document contains an overall schedule that is the basic plan to complete all environmental work and closeout the various sites to reach the Navy's ultimate goal of property transfer. It probably has more detail than the average person may want, but it is a great resource.

**The SMP can be found in the Information Repositories. See page 6 for locations.*

TI/YBI HISTORICAL QUESTION
 Who spent time on what is now
 the Great Lawn, but not by choice?
 Answer on Page 4



Signal Tower No. 107, 1917

Island Times: So how far has cleanup progressed at NAVSTA TI, and what is left to do?

Marcie: Well, that is a big question. Generally, most of the sites at TI are defined under the regulatory process referred to as CERCLA (the Comprehensive Environmental Response, Compensation, and Liability Act). Of the CERCLA sites on NAVSTA TI, eight have been closed, and two have had what are called interim removal actions. The majority of the open CERCLA sites are through the investigation stages and are now in the reporting stage. The other major program is the petroleum program. Eight of the nine petroleum sites have received regulatory closure approval. Other smaller programs such as the radiological program and PCB program (see PCB article on page 5), the Navy is close to wrapping up either the investigation surveys or remediation this year. Overall, the Navy with the help of the BCT (Base Realignment and Closure [BRAC] Cleanup Team) has made a lot of progress.

Island Times: So how much is left to do to complete cleanup?

Marcie: The ultimate goal is site closeout for each site and closure of all of the programs. With the exception of some property that is being used by California Department of Transportation (Caltrans) for the new bridge, the schedule wraps up around 2013. That does not take into account long-term monitoring on a few sites, or the possibility of any early transfer to the City of San Francisco. But early transfer is a whole other topic for a whole other article!

Island Times: What do you like best about working on the NAVSTA TI project?

Marcie: I really like the diversity of the project. It's really several projects in one, which keeps it interesting. The types of environmental sites and means of cleanup vary, there are many different people on the project that I interact with, and everyone works very hard to keep things moving forward. I also really enjoy the opportunity to work on a project in the city I live in; I can literally look out the window from my office and see TI across the bay. I have also enjoyed being exposed to the future use of TI and seeing how the City of San Francisco is considering sustainability in their redevelopment plans. I'm committed to protecting the environment and enjoy working on a project where I get to see environmental progress made.

Island Times: Where did you go to school and what did you study?

Marcie: I have a B.S. in Geosciences from the University of Arizona. Right now, I am a candidate for a Master of Business Administration (MBA) in sustainable enterprises at Dominican University in San Rafael. It's commonly referred to as a "green" MBA.

Island Times: What do you do in your free time?

Marcie: I'm working full-time and going to business school, so free time is unheard of these days! But when I get a break, I like to enjoy the outdoors, play volleyball, listen to live music, and travel.



Marcie Rash, Tetra Tech

NEW TECHNOLOGY: ARSENIC IN GROUNDWATER STUDY

The Navy and their contractors recently completed a bench-scale study to treat arsenic in groundwater at a specific area in Site 12, the Housing Area, near the corner of Westside Drive and Gateview Avenue (see map on page 4). A bench-scale study refers to a technology that is tried first in the laboratory, on a laboratory bench, before it is used in the field. If the bench-scale study is successful, a pilot study is done. A pilot study is the small field study that follows a successful bench-scale study. If successful, a pilot study is done.

The goal of the project is to reduce the concentrations of dissolved arsenic in groundwater to prevent movement of contaminated water into San Francisco Bay. (Note that groundwater at NAVSTA TI is never used for drinking water. Drinking water comes from the City of San Francisco, and is transported via a pipeline on the Bay Bridge.) The arsenic is naturally occurring in the soil, and is very common in the Bay Area. However, there is residual petroleum hydrocarbon contamination in the soil and groundwater in this area. There are microorganisms that feed on the petroleum contamination in the soil. As they feed on the petroleum hydrocarbons, they go through different metabolic processes, turning

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the contamination into carbon dioxide. As the microorganisms consume the petroleum hydrocarbons, they also consume all of the oxygen in the groundwater. A side effect is that naturally occurring arsenic in soil may be mobilized into the groundwater. The treatment being tested should prevent the arsenic from dissolving into the water and becoming mobile while also addressing the remainder of the petroleum contamination.

For the bench-scale study, in the laboratory, technicians used soil from the actual site to test a treatment technology referred to as “air sparging,” which is the injection of air directly into the groundwater. There were three alternatives in the study: a control group, and two different treatment technologies using oxygen and different nutrients. Overall, the technicians found that a thorough distribution of oxygen through the soil was the key to reducing the mobility of the arsenic while treating the petroleum. The petroleum itself is being treated by microorganisms that digest the petroleum, reducing it to a non-contaminated state; this is called aerobic respiration. By day 20 of the test, the arsenic had reduced by 40 percent.

A report on the bench-scale study can be found in a document detailing the plans for the next phase of the study. That document is the Site 12 Work Plan for Arsenic in Groundwater Pilot Study, and is available in the Information Repositories. The report concludes that the air sparging treatment used in the bench-scale study should be used in the field during the pilot study and is expected to have good results. The pilot study that will be conducted in the Housing Area (Site 12) is expected to start in August/September 2008.

COMMUNITY RELATIONS PLAN

As we mentioned in Volume 13 of the *Island Times*, the Navy has updated the Community Relations Plan (CRP). Thank you to those who participated. The Navy held 23 interviews with people representing various interests in the community. The CRP document has been finalized and can be found in the Information Repositories. (See page 6 for locations.)

The CRP is a document that can be pulled off the shelf at any time and referenced to find out about the community, their general concerns and interests, the best ways to keep people informed, and to make sure all regulatory requirements related to community relations are being met.

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Westside Drive Arsenic in Groundwater Pilot Study Area

TI/YBI HISTORICAL ANSWER

Prisoners of War (POWs). Near the end of World War II, four barracks buildings (Buildings 188, 189, 190 and 191), surrounded by a security fence, were constructed on what is now the Great Lawn. From 1945 to 1946, German POWs were housed there and assigned jobs on the island. The buildings were used for other purposes after the war, including the first Treasure Island Elementary School, and then demolished in the 1970's.



Sailors Washing Clothes in Building 93 on YBI, 1918

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In general, there is a moderate level of concern about or interest in the Navy's environmental program at NAVSTA TI. The top three areas of interest voiced in the CRP interviews are:

- Keeping residents/tenants informed
- Timeline/delays and the overall plan for cleanup and transfer
- Health effects to current residents from existing conditions or cleanup work

The Navy will work to keep residents updated and provide information about the areas of greatest concern and impact to the residents. If you have a topic you would like to see discussed in this newsletter, we would like to hear from you. Please contact James Sullivan at (619) 532-0966 or send an e-mail to james.b.sullivan2@navy.mil.

THE NAVY'S PCB PROGRAM

The Navy has several programs that deal with specific contaminants of concern at NAVSTA TI, including one for polychlorinated biphenyls or PCBs. PCBs were commonly used in high-voltage electric transformers and other types of electrical equipment as a coolant, but are no longer used, and have not been manufactured in the United States since 1977. (PCBs are also dealt with in the IR Program if the PCBs are a part of other contamination, such as at Site 12.) Recently the Navy issued the Final PCB Summary Report (Phase I and II), detailing the investigations of areas surrounding transformers and electrical equipment that might have contained oil with PCBs and making recommendations for remedies for several transformer areas. This article presents a few highlights from the PCB program and the work that was recently completed.

Beginning in the 1980s, the Navy removed 21 electrical transformers that contained PCBs. In 1996, another eight PCB-containing transformers were removed, and today there are no transformers on NAVSTA TI with PCBs. In 2003, the Navy reviewed several documents to identify areas where transformers (that may have contained oil with PCBs) were or are located on both TI and YBI. Based on that review, the Navy did two phases of investigation of soil and concrete at each location identified as either an area where a transformer was currently located, or had historically been located. The goal was to determine if there are any PCBs remaining, and if so, determine what remedy might be necessary. The first phase of the investigation focused on areas that were part of the 2006 transfer documents, and the second phase focused on the remaining areas of NAVSTA TI.

The January 2008 Final PCB Summary Report documented the results from the two phases of investigation and concluded that

eight locations needed further sampling or a remedy. A copy of the final report can be found in the Information Repositories. (See page 6 for locations). Additional soil and/or concrete samples were collected at the locations listed on the figure below. Results of investigations indicated that electrical vault rooms within Buildings 1, 3, and 180 on TI and Building 240 on YBI required remediation. Two layers of an epoxy encapsulant were painted on the floors to seal any PCBs remaining in the concrete. (See photos below)

Later, additional activities were performed that included soil investigations at one transformer location and soil removals at three of the locations on TI. Results of the soil investigation indicated no further investigation was required, and soil was removed in three transformer areas until the area met the cleanup goal or until the digging reached concrete fixtures (such as utility vaults) below ground. A PCB Field Activity Report will document this work. With the issuance of the Final PCB Summary Report (Phase I and II), and subsequent investigation and remediation, the basewide PCB program at NAVSTA TI is completed.



**CHECK OUT THE RESTORATION
ADVISORY BOARD**

The RAB is composed of members of the community who work with the Navy and regulatory agencies to provide input on the environmental restoration of NAVSTA TI. Regular meetings are held to discuss the progress of the Environmental Cleanup Program. **It is a great opportunity to find out what is going on and to have your voice heard.** Residents or community members regularly drop in to hear the latest news or ask questions. All RAB meetings are public meetings. Everyone is welcome!

RAB meetings are held at 7:00 p.m. on the third Tuesday of every other month at the Casa de la Vista on TI and are open to everyone. The remaining RAB meetings in 2008 are currently scheduled for August 19, October 21, and December 16. For more information, contact James Sullivan at (619) 532-0966 or send an e-mail to james.b.sullivan2@navy.mil.

INFORMATION REPOSITORIES

Did you know the Navy has two conveniently located Information Repositories housing environmental documents related to NAVSTA TI? You can visit these repositories to view various documents published for the environmental program. Visit the Navy's Information Repositories, located at the following addresses:

Navy BRAC PMO Office
410 Palm Avenue, Building 1, Room 161
Treasure Island, San Francisco, CA 94130
(415) 743-4729
Monday through Friday 8:30 a.m. – 4:30 p.m.

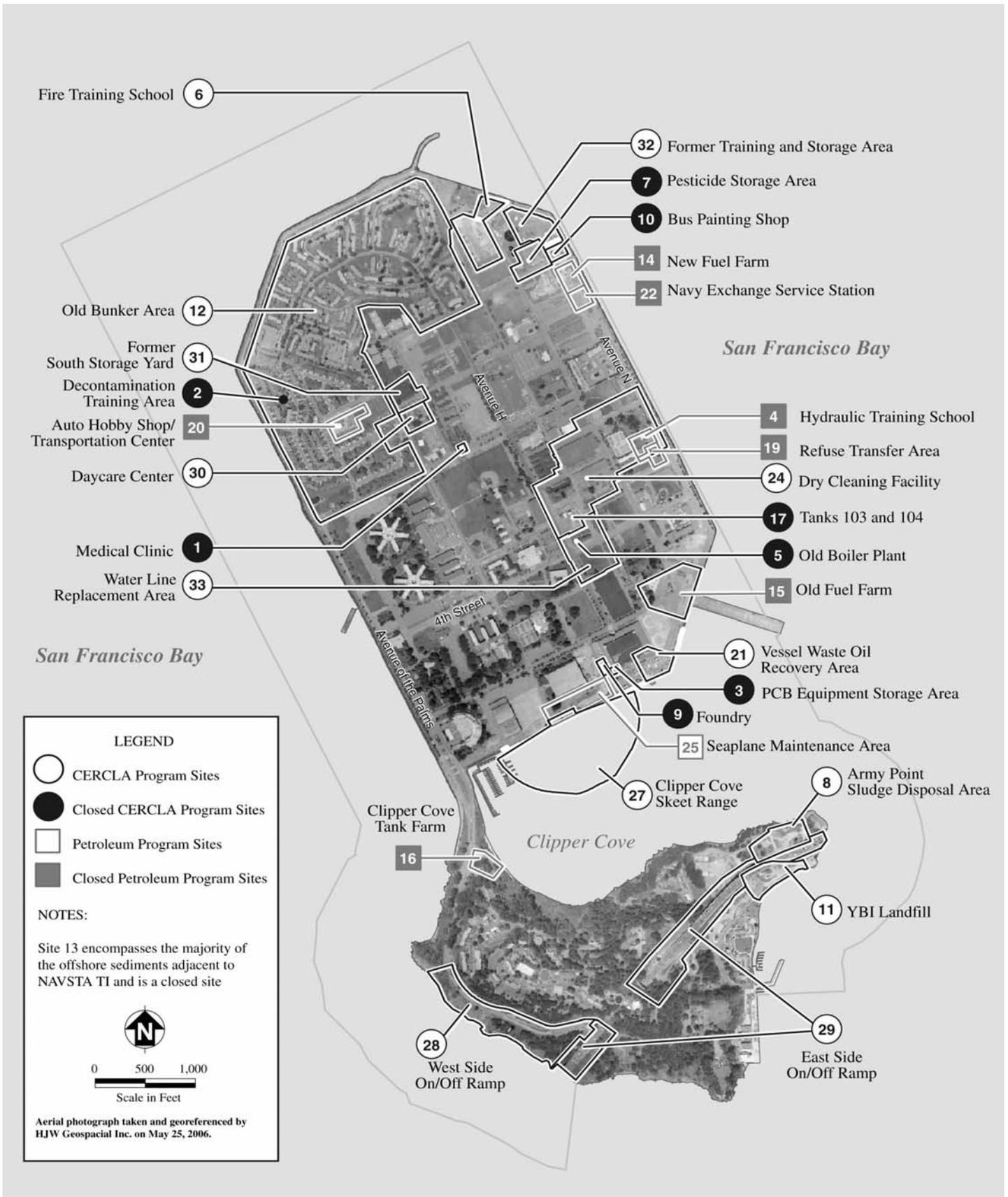
OR

San Francisco Public Library
Government Publications Section, 5th Floor
100 Larkin Street
San Francisco, CA
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Call for hours

BRAC CLEANUP TEAM CONTACT LIST

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NAVSTA TI IR PROGRAM SITE MAP



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