Meeting Summary
Hunters Point Naval Shipyard
Community Meeting
October 24, 2012

MEETING TIME/DATE: Wednesday, October 24, 2012, 6:00 p.m. to 7:45 p.m.

MEETING LOCATION:: Bayview YMCA
1601 Lane Street
San Francisco, CA 94124

MEETING TOPIC: Parcel C: Upcoming Cleanup

I. Welcome/Introductions

Matt Robinson/Circlepoint (Community Involvement Manager) introduced himself and welcomed everyone to the Hunters Point Naval Shipyard (HPNS) community meeting. Mr. Robinson introduced Keith Forman/U.S. Department of the Navy (Navy) (Base Realignment and Closure [BRAC] Environmental Coordinator) and Lora Battaglia/Navy (Remedial Project Manager). Regulatory agency team members in attendance included Craig Cooper/U.S. Environmental Protection Agency (USEPA) (Program Manager), Jackie Lane/USEPA (Community Outreach Specialist), and Ryan Miya/California Department of Toxic Substances Control (DTSC) (Project Manager).

II. Meeting Format and Ground Rules

Mr. Robinson described the meeting format and ground rules. He stated that the purpose of the meeting was to provide an overview of Parcel C, describe plans for upcoming field work on the parcel, give a schedule for the upcoming cleanup work, and answer community questions.

Mr. Robinson noted that an opportunity to ask questions would be provided at the end of the presentation. Following questions on the presentation, participants would have an opportunity to visit with members of the Navy and regulatory agencies at the Open House tables. After the Open House, Mr. Robinson stated a representative from each table would report back to the group on the questions participants asked. He added that an open forum would be at the end of the meeting to answer any additional questions.

III. Parcel C: Upcoming Cleanup

Ms. Battaglia introduced herself and began the presentation by giving a site overview of Parcel C. Parcel C was historically used for ship repair and maintenance activities and included a power plant as well as machine, metalworking, and paint shops. The parcel is 73 acres and was the most concentrated industrial area on HPNS.

Contaminants of concern identified on Parcel C include metals (arsenic, lead, zinc, and manganese) in soil, polycyclic aromatic hydrocarbons (PAHs) in soil, polychlorinated biphenyls (PCBs) in soil, volatile organic compounds (VOCs) in groundwater, chlorinated

compounds and metals (chromium and zinc) in groundwater, and low levels of radionuclides in structures and sanitary and storm drains.

Completed actions on Parcel C have included two key removal actions that reduced or eliminated risks to human health and the environment by excavating and disposing of 9,600 cubic yards of soil, collecting more than 3,000 samples, and identifying technologies to reduce chlorinated solvents in soil and groundwater. These actions assisted the Navy with identifying appropriate treatments options that they will begin implementing in 2013. These treatment options include removal and treatment of contaminated soil, treatment of contaminated groundwater, and investigation and removal of radiologically-impacted structures. The radiological cleanup will investigate and remove radiological contamination when discovered, and the Navy will obtain a free release letter from the State of California.

Contaminated soil will be excavated and properly disposed off site. Soil excavation is planned for 31 areas within Parcel C. The Navy will dig down to 10 feet below ground surface (bgs), except in two locations, and up to 42,000 cubic yards of soil will be removed and disposed of offsite.

The Navy will install a soil-vapor extraction (SVE) systems to reduce sources of contaminants in soil above groundwater plumes. The systems will be installed and operated in eight areas on Parcel C and a soil and groundwater survey will be conducted following completion of cleanup activities. Following the excavation and SVE system cleanup activities, the Navy will install long-lasting covers.

Long-lasting durable covers will be made of asphalt, concrete, or soil and will serve to limit exposure to any residual contaminants in soil. In addition, guidelines and limitations will be set for future reuse and development at the site.

The Navy is also proposing to treat contaminated groundwater at four plumes in Parcel C. The four groundwater plume areas have several sub-groundwater plumes. RU-C1 has four sub-plumes (C1-1, C1-2, C1-4, and C1-5), RU-C2 has two sub-plumes (C2-1 and C2-2), RU-C4 only has sub-plume C4-1, and RU-C5 has two sub-plumes (C5-1 and C5-2). Groundwater plumes RU-C1, RU-C2, RU-C4 and RU-C5 will be treated using iron injections, bioremediation treatment [meaning the use of micro-organisms to consume contaminants and break them down into harmless substances], professionally managed monitored natural attenuation [meaning allowing certain contaminants to break down naturally over time, while continuing to regularly monitor the contaminant levels to ensure that they are reducing as planned], and guidelines restricting future land use.

Zero valent iron (ZVI) injections are planned for six locations to target “hotspot” areas where contaminant concentrations are highest. The liquid form of iron is injected into groundwater and creates a reaction that breaks down the contaminants. The bioremediation cleanup is proposed at seven locations and will involve injection of molasses or sodium lactate that will help stimulate and feed the naturally occurring bacteria in the subsurface, which will help further break down contaminants. The sodium lactate is used for solvents and the molasses is used for chromium VI and zinc. The bioremediation is planned to help permanently reduce concentrations of metals in groundwater.

The treatment depth for the RU-C1 plumes will be from approximately 7 to 25 feet bgs, the RU-C2 treatment depth will be approximately 15 feet bgs, RUC-4 treatment depth is approximately 25 feet bgs, and RU-C5 treatment depth is approximately 20 feet bgs. All four treatment areas have groundwater occurring at approximately 7 feet bgs. Cleanup of the groundwater plumes is expected to take between three and ten years.

Mr. Forman noted that radiological investigation is ongoing on Parcel C. Phase I, which included removal, survey and backfill of 22,907 linear feet of storm drain and sewer lines, is complete. After this removal the Navy also installed stormwater swales to manage stormwater runoff. Phase II of the radiological investigation will include removing the remaining 14,300 linear feet of sanitary and storm drains, installation of additional stormwater swales, and survey of ship Berths 1 through 5. Buildings that still need to be investigated for radiological contamination and cleaned up if such contamination is detected, include Buildings 253, 211, 224, and 205. Building 253 is the large glass building on the base that previously held a radium dial paint lab. The Navy believes radiological contamination may exist in the concrete floors of Building 253 from historic paint spills. The building is very large and will likely take up to two years to survey and remediate.

The soil and groundwater work plans for this work on Parcel C are currently under review and the final versions are planned for release in January 2013. Soil and groundwater field work is scheduled to begin in February 2013 and end in August 2013. The radiological program work is ongoing and scheduled for completion in the summer of 2014. Long-lasting covers will be installed across the parcel following completion of the fieldwork.

Audience Questions and Responses

Question (Marie Harrison): Will the Navy do both iron and molasses injections at the same time in the same areas?

Ms. Battaglia: Yes, the Navy will do both ZVI injections and bioremediation in the same areas with bioremediation following the ZVI injections. The ZVI will react quickly with contaminants in the subsurface while the bioremediation will treat the contamination at a slower pace for a longer period of time.

Question (Marie Harrison): Can you please tell us what chemicals are being treated with the iron injections and which are being treated by the bioremediation?

Ms. Battaglia: The ZVI injections will treat tetrachloroethylene (PCE) and trichloroethylene (TCE). The molasses will treat concentrations of the chromium VI and zinc, and sodium lactate will treat remaining concentrations of solvents such as PCE and TCE.

Question (Marie Harrison): Are the solvents in groundwater leaching into the San Francisco Bay?

Ms. Battaglia: The Navy monitors groundwater in this area and they have not found evidence of the groundwater contamination leaching into the San Francisco Bay.

Mr. Forman: The purpose of treating the groundwater is to address the plume before it can reach the Bay.

Comment (Jaron Browne): Are there ecological receptors at risk for groundwater plumes leaching into San Francisco Bay and will the Navy be treating the vinyl chloride in groundwater?

Ms. Battaglia: The Navy does not think that ecological receptors in San Francisco Bay have been impacted by the groundwater plumes. Yes, the Navy is targeting vinyl chloride in groundwater to be treated.

Question (Esselene Stancil): Will the molasses attract insects at the surface?

Ms. Battaglia: The molasses is injected deep underground and will not attract insects at the surface.

Question (Antoinette Armstrong): In 2000, over 250 residents from the area participated in a HazMat course and were told there would be environmental jobs available. Why aren't the people from the Bayview community involved in the environmental cleanup jobs and how can the citizens better engage the USEPA on the subject.

Mr. Robinson: Representatives from the USEPA are present at the meeting and Ms. Lane can discuss your concerns with you after the meeting.

Question (Jaron Browne): Please explain how injections of ZVI or bioremediation cleanup the subsurface contaminants?

Mr. Forman: At each of these groundwater plumes it is a mixture of different types of chemicals that need to be cleaned up. The ZVI is "super-charged" iron that, when it comes into contact with the contaminants, removes the chlorine atom from the contaminant which effectively makes it a new compound that is no longer hazardous to human health or the environment. The type of cleanup using ZVI has been very effective at other locations on HPNS and at cleanup sites across the county. After injection, the Navy will continue to monitor groundwater in the area to see how effective the injections were and if additional cleanup in the area is necessary.

Question (Esselene Stancil): Are the chemicals in the groundwater from a single source or a continuing source area?

Mr. Forman: Historically, there were likely many different source areas where contamination entered into the ground. The Navy has removed all of the former tanks, pits, and industrial lines in the area that may have potentially been contributing to the subsurface contamination.

Question (Raymond Tompkins): In the future, may I suggest that the Navy present which chemicals are being treated by which process, the appropriate cleanup goals, and the timeframe of the treatment activities?

Ms. Battaglia: The Navy will take the suggestion as an action item and provide that information in the community presentation that will be posted on the BRAC website.

Question (J.V. McCarthy): How was the cleanup time of three to ten years determined?

Ms. Battaglia: The Navy does not have the specific time frames for each site with available tonight but the ZVI injections will act quickly while the bioremediation injections will work at a slower, steadier rate.

Question (J.V. McCarthy): What about leakage from nearby FUD sites onto Parcel C?

Mr. Forman: Formerly Used Defense (FUD) sites are not Navy sites and while there are some located outside HPNS, none have been identified as impacting Parcel C.

Question (Marie Harrison): Has the Navy tested the soil and groundwater beneath the remaining buildings on Parcel C?

Ms. Battaglia: The Navy has collected samples from beneath all of the buildings on Parcel C; the Navy representatives were not aware of any building that did not have samples from beneath it.

Question (Marie Harrison): Are there any obstructions that are stopping contaminated groundwater from migrating to the San Francisco Bay?

Ms. Battaglia: There are some barriers at HPNS like bedrock or dry dock walls but these barriers are not being relied upon by the Navy. Rather, the Navy has been conducting routine groundwater monitoring on Parcel C for years and feels confident that the contaminants in groundwater are not migrating into the San Francisco Bay.

Mr. Miya noted that the Navy will also retest the groundwater in these areas after treatment is complete to ensure that contaminants are not migrating to the San Francisco Bay.

Question (Marie Harrison): May I have a copy of the figures used in the Navy's presentation?

Ms. Battaglia: The Navy will send Ms. Harrison copies of the figures used in the Parcel C presentation.

Question (Sharon Beals): Why is the Navy leaving the old buildings in place?

Mr. Forman: The Navy is only allowed to spend taxpayer money on environmental cleanup activities, which does not include demolition of buildings, except in very rare cases.

Question (Linda Richardson): How does the community get more involved in deciding which buildings stay on the shipyard and which ones are removed?

Mr. Forman: The community would need to work with the City of San Francisco on their proposed redevelopment plan.

Comment (Linda Richardson): I would like to request that the regulatory agencies support the local community groups in the area and it appears that they aren't taking the community into account in their decisions?

Comment noted.

Question (Marie Harrison): How long will the Navy monitor groundwater after the treatment is finished?

Mr. Forman: The Navy will continue to monitor groundwater until it reaches the cleanup goals, which may take years.

Question (Marie Harrison): What are the cleanup goals and will they allow for residential cleanup?

Mr. Forman: The cleanup goal is different for each chemical, but the Navy will provide all of the cleanup goals to Ms. Harrison after the meeting. Certain portions of Parcel C will be cleaned up to residential reuse per the City of San Francisco's redevelopment plan.

Question (Sharon Beal): Would the Navy consider doing a biological cover for areas in Parcel C? I would like to suggest there be more biological covers on HPNS with more native plants.

Mr. Forman: Parcel C was the heart of the shipyard and industrial area. No location within the parcel has been identified as appropriate for a soil cover or open field. One of the reasons for the asphalt/concrete covers is it gives a high level of confidence that the site is protective of human health and the environment.

The open house tables were not held because the time was spent answering the public's comments following the presentation.

VI. Meeting Adjournment and Review of Action Items

1. The Navy will revise the community presentation to include which chemicals are being treated by each treatment process, the appropriate cleanup goals, and the timeframe of the treatment activities.
2. The Navy will send Marie Harrison copies of the figures used in the community presentation.