

Naval Facilities Engineering Systems Command Southwest Base Realignment and Closure (BRAC) Program Management Office (PMO) West San Diego, California

FINAL
Restoration Advisory Board
Meeting Minutes, Meeting Number 208

Former Naval Station Treasure Island San Francisco, California

February 8, 2022

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Naval Facilities Engineering Systems Command Southwest Base Realignment and Closure (BRAC) Program Management Office (PMO) West San Diego, California

FINAL Restoration Advisory Board Meeting Minutes, Meeting Number 208

Former Naval Station Treasure Island San Francisco, California

February 8, 2022

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Prepared for:



Department of the Navy Naval Facilities Engineering Systems Command Southwest BRAC PMO West 33000 Nixie Way, Building 50 San Diego, California 92147

Prepared by:



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FINAL

MEETING MINUTES RESTORATION ADVISORY BOARD FORMER NAVAL STATION TREASURE ISLAND 8 February 2022 Meeting Number 208

Virtual Meeting Number 8

Community Restoration Advisory Board (RAB) Members in attendance:

Nathan Brennan, Alice Pilram, Dale Smith

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

Tahirih Linz, Navy Base Realignment and Closure (BRAC) Environmental Coordinator Celina Hernandez, San Francisco Bay Regional Water Quality Control Board (Water Board)

Peyton Ward, Department of Toxic Substances Control (DTSC)

Other Navy, Regulatory Staff, and Consultant Representatives in attendance:

Dave Clark, Navy Lead Remedial Project Manager

Patricia McFadden, Navy

Kimberly Walsh, DTSC

Marsha Maloof, Maloof & Associates

Geoff Mordock, Fleishman Hillard

Rick Wice, Battelle

Christine Niccoli, Court Reporter

Megan Kranz, Trevet-Bay West Joint Venture (Trevet-Bay West)

Maddison Laeber, Trevet-Bay West

Public Guests in Attendance:

Bob Beck, Treasure Island Development Authority (TIDA)
Julia Dowell, Greenaction for Health & Environmental Justice
Carol Harvey, journalist
James Pepper, resident
Kevin Elizabeth Kempf, resident
Gaetano Taibi, community member

Welcome Remarks and Agenda Review

Marsha Maloof (facilitator) opened the February 2022 RAB meeting for Former Naval Station Treasure Island (NAVSTA TI), held virtually because of COVID-19 restrictions. Ms. Maloof initiated introductions and reviewed the agenda (Attachment A).

New Business—Fieldwork Update: Site 12 Housing Area and Basewide Monitoring Program

Dave Clark (Navy) introduced his presentation and stated it will include two different fieldwork topics. The first topic covers the Phase IV non-time critical removal action (NTCRA), and the second topic addresses the Navy's groundwater and soil gas monitoring program.

He explained that planning for the NTCRA began in the early days of the environmental program. An action memorandum was signed in 2007 and fieldwork began in March of the same year. Phase IV of the NTCRA consists of screening the remaining excavated stockpiles for munitions and radiological constituents and completes the work left over from Phase III. There will be no new Site 12 excavation activities at any point in the near future. A document will be finalized later in 2022 summarizing and updating the conceptual site model for Site 12, enabling the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process to progress further. Although the Westside Drive project is nearing completion, various phases of the CERCLA process remain to be completed. No major intrusive investigations are planned following completion of Phase IV fieldwork until the Navy is further along in the CERCLA process. Reports and technical memoranda will be produced going forward, including the feasibility study in 2023, leading to a final remedy for Site 12.

Munitions and explosives of concern (MEC) screening is one aspect of the fieldwork. The MEC screening process, which began in March 2021 and is approximately 85% complete, was halted in December 2021 due to a large storm. In December 2021 and January 2022, 70% of the needed backfill was imported, creating more real estate for conducting final radiological screening. MEC screening of the remaining 600 cubic yards of soil was restarted in January 2022, and completion is expected during the first week of February.

To date, 26 MEC and 77 materials documented as safe (MDAS) have been recovered.

Once MEC screening is complete, backfilling can resume as well. Grading, with a focus on proper drainage, will subsequently be conducted until the surface matches surrounding surface elevations, and then the area will be hydroseeded.

The southern portion of the excavation was previously backfilled to the water table. Following rains, the gravel used as a base rock for backfilled remained. Clean fill was layered on the gravel, a geotextile fabric was added, and more soil was laid on top.

Mr. Clark reviewed the Best Management Practices at TI. Sandbags are placed to control stormwater and are used to protect storm drains. The routes into the site, on Gateview Avenue and remaining portion of Westside Drive, are regularly swept to keep the roads clean as trucks come and go.

Mr. Clark expects that all MEC and radiological screening activities can be completed in March 2022. Backfilling could then be completed in the northern area and transport and disposal of soil off-site would occur in March and April 2022. The final grade profile would be established by late April 2022, and hydroseeding and demobilizing would occur in May

or June of 2022. Completion of the post-construction summary report is anticipated in August 2022.

Mr. Clark began the second phase of his presentation on the 2022 basewide monitoring program by explaining that while Sites 12 and 24 have been transferred, the Navy continues cleanup activities at the sites.

The current remedy at Site 6 has been in place since 2016, when the excavation and various pre-treatment activities were completed. Since then, groundwater monitoring has been performed because of the presence of former petroleum tanks. The chemical of concern, per- and polyfluoroalkyl substances (PFAS), has also been included in the Site 6 monitoring program since it was brought to the Navy's attention. The five-year review findings resulted in arsenic becoming a subject of groundwater monitoring.

The Navy plans to continue collecting data at Site 6 in 2022 in support of future CERCLA documents. The current CERCLA document in progress is the Site 6 remedial investigation (RI) report. The normal monitoring program as well as site-specific monitoring around Site 6 are currently ongoing in support of the RI. Evaluation of arsenic in groundwater is also ongoing in support of the technical evaluation that will revise the remedial goal for the area as part of the findings of the second and third five-year reviews in 2020 and 2025. Ongoing monitoring and sampling after the remedy is in place also provides more complete data sets in support of tank closures, such as Underground Storage Tank (UST) 248 at Site 6, which is the only remaining UST that has yet to be officially closed. Quarterly monitoring for PFAS, arsenic, and petroleum is ongoing at nine wells at Site 6. The monitoring network at Site 6 will expand to achieve these goals.

For Site 12 on Gateview Avenue, an intrusive investigation addressing natural arsenic in soil mobilized by total petroleum hydrocarbons (TPH) into groundwater occurred. The contaminated soil was ultimately removed to address a groundwater issue as part of a time-critical removal action (TCRA) a few years ago. Post-TCRA quarterly monitoring focused on creating data sets for the petroleum and arsenic. Monitoring results suggest that the excavation significantly reduced concerns about ecological impacts to the bay. Quarterly monitoring for TPH and arsenic will continue throughout 2022 at 13 wells to detect trends and determined if any additional actions are required for the remedy.

The program also addresses the Site 12 Solid Waste Disposal Areas (SWDAs). The Navy's goal for 2022 is to evaluate the presence of residual petroleum at Westside Drive and to monitor for metals and radium-226. All data being collected will be used to support future CERCLA documents, including the Feasibility Study Addendum. Four groundwater monitoring wells at Westside Drive that were removed or destroyed during excavation are designated for replacement.

For Site 21, the Navy will be collecting semiannual soil gas data in 2022 from five locations for volatile organic compounds (VOC). The protectiveness of the remedy will be evaluated, and data will be collected in support of the five-year review process.

Site 24 is historically the most complicated in terms of the groundwater soil gas remedy. Treatability studies were previously conducted, and a remedial action was implemented in 2018 and 2019. The monitoring network at Site 24 took over ten years to install, and

some wells are now being removed or relocated as they are determined to no longer be necessary to the understanding of the site and as redevelopment enters the site. Eighteen wells are currently being monitored quarterly and 10 wells are monitored annually for soil gas. Four wells are monitored quarterly, and eight wells are monitored annually for groundwater to evaluate post-remedy VOCs in groundwater.

Mr. Clark asked for questions from the meeting attendees.

Alice Pilram (RAB Co-Chair) stated that "Gateway Avenue" on slide 21 should be "Gateview Avenue."

Dale Smith (RAB Member) asked if MDAS are removed in the same manner as MECs. Patricia McFadden (Navy) said that every item that is found is removed, whether it is MEC or not.

Ms. Smith asked if the Navy would continue adding fill up to the height of the berm at the location in the image on slide 13. Mr. Clark said that additional fill will raise the surface an additional 3 to 4 feet above its current height, but it will not reach the level of Perimeter Road. Ms. Smith asked Peyton Ward (DTSC) if the geotextile barrier material will ultimately be disadvantageous to the environment. Ms. Ward said that she was unsure, but that the geotextile is commonly used at Treasure Island and various other locations.

Ms. Smith asked if the Navy would allow native plants to grow and let the City of San Francisco decide whether to keep them. Mr. Clark said that the Navy will be using a native seed mix on the open spaces. The Navy does not have a long-term plan that addresses native plants that begin to grow, but he would not be opposed to using native plants other than the seed mix used. Ms. Smith requested a list of the native seeds in the mix used for hydroseeding.

Ms. Smith asked about the Site 6 cleanup target. Mr. Clark said that the goal for a record of decision (ROD) for PFAS at Site 6 is to be in place as soon as possible, but certainly within the next few years. Tahirih Linz (Navy) added that the Navy expects there to be a ROD by 2025, but that the area's redevelopment is much further out in the future.

Ms. Smith asked why some soil gas probes need to be replaced. Mr. Clark said that sometimes the probes are damaged by ongoing activities at the site or that they may need to be moved if development occurs.

Ms. Smith asked why sentinel wells along Bayside were removed. Mr. Clark said that because of the reduction in the footprint of the plume, that sentinel wells were no longer needed along the shoreline. Ms. Smith asked if any sampling is occurring along the shoreline in that area. Mr. Clark said that sampling is no longer occurring there as the plume has been contained to the center of the island.

Ms. Smith asked if arsenic is a metal of concern at Site 24 and whether it is mobile. Mr. Clark said no that the primary concern are VOCs.

Julia Dowell (Greenaction for Health & Environmental Justice) asked what sea level rise projections are being considered in the cleanup plan and if the projections are aligned with the California Coastal Commission's 2020 projections which are preparing for up to

7.6 feet of rise by 2100. Mr. Clark said that for most sites, sea level rise will be considered as the Navy moves through the CERCLA process. One way in which the Navy addresses sea level rise is by aggressively approaching the removal of contamination. The five-year review process addresses the long-term effectiveness of remedies and considers all aspects, including sea level rise.

Ms. Dowell asked if placing a cap on any materials will be implemented and whether it is part of the remediation plan. Mr. Clark said that one alternative that could be considered for Site 12 is capping at Westside Drive because there is material left in place. The decision on what the alternative will be is still several years down the road and will involve agency and public input before the Navy selects a final remedy. Carol Harvey (Journalist) asked what kind of cap would be used. Mr. Clark said that it could be an engineered cap, likely using soil as a component, similar to what would be used on a landfill.

Ms. Harvey referenced the arsenic plume removed from Westside Drive and Gateview Avenue in 2016 and asked how long the plume expanded before its removal. Mr. Clark was uncertain of the exact timeframe, but the petroleum was likely detected early in the initial collection of data in support of the remedial investigation, up to 20 years ago. Ms. Harvey asked why the Navy allowed it to expand for so long. Mr. Clark said that it was likely a combination of determining its exact location and extent and then evaluating alternatives. Eventually, removing the plume was determined to be the best long-term solution.

Ms. Harvey said that Google Maps recently showed nuclear waste tanks at Site 6. Mr. Clark said that Site 6 was the second location of the U.S.S. Pandemonium, which was the Navy's training ship for decontamination, but that no nuclear waste is currently there.

Gaetano Taibi (community member) asked why radiological screening is ongoing while the conceptual site model is still being updated for Site 12 and whether a work plan was approved for scanning activities at the site. Ms. Linz said that the fieldwork at Westside Drive is not related to the conceptual site model. The Navy has found more information about munitions that they are adding to the conceptual site model, but the ongoing fieldwork within Westside Drive is not directly related to the conceptual site model. There is a work plan for the work being done that was approved by DTSC, and the sampling and analysis results for work being conducted is available on the BRAC PMO website.

James Pepper (Resident) said that given the radiological training conducted on the U.S.S. Pandemonium, it's possible that radiological items will be found upon demolition of related buildings. He asked how long it will take to check the buildings. He also asked if the arsenic plume was a result of chemical weapons. Mr. Clark said that the Navy has not yet decided on a remedy for Site 12, but that additional scanning underneath some of the buildings may be necessary. Arsenic is naturally occurring in the soil and the TPH also present created the conditions that caused the arsenic plume.

New Business—BRAC Cleanup Team Update

Ms. Ward reviewed the work that she conducted since the previous RAB meeting. She made two visits to Treasure Island to oversee fieldwork at SWDA Westside. Her first visit

was on December 9, 2021, to oversee the import of fill material and the MEC screening, and to evaluate the perimeter fence. Her second visit on the day of the RAB meeting was to oversee the radiological scanning and sampling of stockpiled material and MEC scanning. She observed the condition of the perimeter fence because of several public inquiries about the fence since the previous RAB meeting. The performance of the Bay side of the fence has declined because of weathering. The Navy's new contract will allow for more substantial repairs and the replacement of sections.

Ms. Ward attended the BRAC Cleanup Team meeting in December and the technical working group meetings for Site 12 and PFAS in January.

Ms. Ward received the Basewide PFAS Site Investigation Work Plan in late December 2021 and will provide her comments to the Navy in March. Her comments on the 1400 Series Housing Area Site Investigation Report were submitted to the Navy earlier in the day. The Interim Chemical Remedial Action Completion Report for the nonsolid waste disposal area in Site 12 was received in December 2021 and DTSC comments will be submitted next week. She will also provide a final letter on the 2021 Groundwater and Soil Gas Monitoring Plan later in the week. The 2020 Basewide Groundwater and Soil Gas Monitoring Report was finalized and is available on EnviroStor. DTSC provided comments on the revised scope for the draft final of the Site 6 PFAS Remedial Investigation Work Plan last week and is working to finalize it in the coming weeks. She recently received responses to comments on the Post-Construction Summary Report Addendum for the NTCRA process. The 2021 Five-Year Review Addendum will be finalized and made available on EnviroStor on March 4, 2022, and the 2021 Site Management Plan has already been made available on the site.

Celina Hernandez (Water Board) said that she has also attended the meetings with Ms. Ward and reviewed many of the same documents. She reviewed the Site 6 Remedial Investigation Work Plan, the Five-Year Review Addendum, and the Basewide PFAS Site Investigation Work Plan. She has uploaded the 2021 Site Management Plan, 2020 Annual Basewide Groundwater and Soil Gas Monitoring Report for Sites 6, 12, 21, and 24, and the Basewide Monitoring Work Plan for the same sites to GeoTracker.

Old Business—Community Comments

Ms. Smith stated that the U.S.S. Pandemonium and a comprehensive radiological investigation of the northeastern area of Treasure Island have never been presented to the RAB and requested that the Navy provide more information on the topics. Ms. Linz suggested Ms. Smith put her specific requests in writing.

Ms. Harvey stated that several chemicals infiltrated into the soil and asked if scans will be performed under every Site 12 building that is demolished to look for chemicals, radiation, and heavy metals. She requested that these topics be covered in a future RAB meeting. She also asked if the arsenic is naturally occurring in soil. Mr. Clark suggested that Ms. Harvey refer to Site 12 documents in the administrative record for an in-depth explanation of the chemistry behind arsenic's occurrence in the soil.

Mr. Pepper asked how long scanning under the demolished buildings will take. Ms. Linz said that the Navy continues to refine the conceptual site model and that once the buildings are removed, the investigations will begin.

Mr. Pepper stated that, according to Naval bulletins, radiological decontamination training occurred on a two-week basis from 1946 to 1967 at the location of the U.S.S. Pandemonium.

Old Business—RAB Meeting Minutes Approval Meeting No. 207

Ms. Linz reviewed the edit she made to the August 2021 RAB meeting minutes since the last meeting. She explained that the last sentence on page 3 of the minutes was vague, so she expanded on the sentence to clarify what she meant.

Nathan Brennan (RAB Member) moved that the August minutes be accepted as amended. Ms. Pilram seconded the motion. The August 2021 RAB meeting minutes were approved.

Ms. Linz asked for comments on the December 2021 RAB meeting minutes.

Ms. Smith stated in the third paragraph on page 2, "Areas of Interested" should be changed to "Areas of Interest." In the final paragraph on page 2, she added that bollards are used to prevent damage to wells in addition to preventing them from being covered. Ms. Linz said that she will change the sentence stating the purpose of bollards to say, "covered or damaged." Ms. Smith said that using quotation marks around "CDPH" in the last sentence in paragraph 6 of page 4 is confusing. Ms. Linz said that the quotation marks were to indicate that CDPH was what had been spray painted on the ground. She said that she will add "spray painted letters" to clarify the meaning of the sentence. Ms. Smith said that in paragraph 5 on page 5, "Mk 2" should be changed to "MKII."

Ms. Pilram moved that the minutes be accepted as amended. Mr. Brennan seconded the motion. The December 2021 meeting minutes were approved.

Action Items from December 2021 RAB Meeting

There were no previous action items to review.

RAB Discussion Items, Co-Chair Announcements, and Future Agenda Items

Ms. Linz said that the next RAB chat is on March 29, 2022, and the next RAB meeting is on May 10, 2022.

Ms. Harvey requested that Ms. Linz mail her the RAB meeting minutes. Ms. Linz said that she will consider Ms. Harvey's request.

Adjournment

The meeting was adjourned at 9:10 p.m.

Action Items

Mr. Clark will send a list of native plants in the seed mix to Ms. Smith.

8 February 2022 RAB Meeting Handouts [attached when minutes are finalized]

• Attachment A: NAVSTA TI RAB Meeting No. 208 Agenda

• Attachment B: Fieldwork Update: Site 12 Housing Area and Basewide

Monitoring Program Presentation

Attachment A. NAVSTA TI RAB Meeting No. 208 Agenda

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San Francisco, California ENVIRONMENTAL RESTORATION ADVISORY BOARD MEETING AGENDA

FORMER NAVAL STATION TREASURE ISLAND

Tuesday, 8 February 2022

Join by computer Download the Microsoft Teams App to your desktop, phone, or tablet and use Meeting Link:

https://tinyurl.com/TI-RAB-FEB-2022

Join by telephone Toll Free: 1-833-258-6146, Enter the meeting ID: 279 341 95#

For Technical Help, use link below or call: 415-712-2311

https://support.microsoft.com/en-us/office/meetings-in-teams-e0b0ae21-53ee-4462-a50d-ca9b9e217b67

MEETING NO. 208

I. WELCOME REMARKS AND AGENDA REVIEW

7:00 – 7:05 Welcome, Introductions

Marsha Maloof, Meeting Facilitator

7:05 – 7:10 Meeting Guidelines and Agenda Review

Marsha Maloof, Meeting Facilitator Alice Pilram, Community Co-Chair

II. NEW BUSINESS

7:10 – 8:00 Fieldwork Update: Site 12 Housing Area and Basewide Monitoring Program

Dave Clark, Navy Lead Remedial Project Manager

Q&A: RAB

Q&A: Community

8:00 – 8:15 BRAC Cleanup Team Update

Peyton Ward, Department of Toxic Substances Control

Celina Hernandez, Regional Water Board

8:15 - 8:25 Break

III. OLD BUSINESS

8:25 – 8:40 Community Comments

Marsha Maloof, Meeting Facilitator

Q&A: RAB

Q&A: Community

8:40 – 8:45 RAB Meeting Minutes Approval Meeting No. 207

Tahirih Linz, Navy Co-Chair

8:45 – 8:50 Action Items from December 2021 RAB Meeting

Tahirih Linz, Navy Co-Chair

8:50 – 8:55 Co-Chair Announcements and Future Agenda Items

Alice Pilram, Community Co-Chair and Tahirih Linz, Navy Co-Chair

9:00 Adjourn

The Next RAB Meeting will be held 10 May 2022 at 7:00 P.M.

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Attachment B. Fieldwork Update Site 12 Housing Area and Basewide Monitoring Program Presentation

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Fieldwork Update Site 12 Housing Area and Basewide Monitoring Program

Former Naval Station Treasure Island

February 2022 Restoration Advisory Board Meeting Dave Clark Navy Lead Remedial Project Manager

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Attachment B

For Tonight's Discussion

- Phase IV Non Time Critical Removal Action
 - Summary
 - Fieldwork Update
 - ❖ Schedule
- Groundwater and Soil Gas Monitoring Program
 - Summary of Sites History
 - 2022 Monitoring Objectives

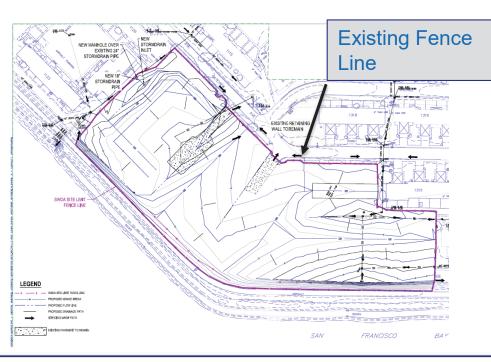


SWDA Westside Phase IV NTCRA Fieldwork Summary



SWDA Westside Phase IV

- ❖Mobilized to site on March 8, 2021
- Characterize soil stockpiles and former radiological screening pads (left from Phase III)
 - Includes munitions of explosive concern (MEC) and radiological screening as needed
- Projected to finish MEC screening by March 2022
- ❖Site restoration by Summer 2022







SWDA Westside Munitions Screening Fundamentals

- ❖ Material Documented as Safe (MDAS): A munitions item that has been assessed and documented as not presenting an explosive hazard.
- ❖ Munitions and Explosives of Concern (MEC): A classification that includes those military munitions that may pose an explosive safety risk



Munitions Screening at SWDA Westside



SWDA Westside Munitions Screening Timeline

MEC Screening:

- ❖ Began March 22, 2021 85% complete
- Slow and deliberative process due to tons of co-mingled metal debris
- MEC screening halted in December 2021 due to inclement weather and the holidays
 - This afforded an opportunity to start importing backfill
 - ❖ Additional area will allow radiological screening to finish
- ❖ Final MEC screening resumed January 24, 2022
- Approximately 600CY remaining to be screened
- Target March 2022 to finish screening



Munitions Screening Operations

- Screening for munitions using wire mesh to sift smaller-sized debris
- Instruments and additional sorting then used to further scan material



Attachment B

SWDA Westside Munitions Recovered – Phase IV



- ❖ 26 MEC and 77 MDAS items recovered to date during the Phase IV NTCRA fieldwork
 - Cartridge cases
 - Projectiles
 - ❖MK II Hand Grenades

Projectile Fuze (MEC)



Wide Range of Items Found from the SWDAs



Flashlight.

Attachment B

Excavation Backfill Efforts

- ❖Estimated volume to backfill historic excavations ~13,000CY
- ❖Import of backfill began December 13, 2021
 - Continued thru January until remaining MEC work resumed
 - ❖30-40 trucks per day.
 - About 70%backfilled
 - ❖ Trucking will continue intermittently thru spring 2022 dependent on other fieldwork activities.
- Grading to match surrounding elevation/grades
- Focus on proper drainage for future weather events
- ❖Site to be hydroseeded consistent with previous open space projects



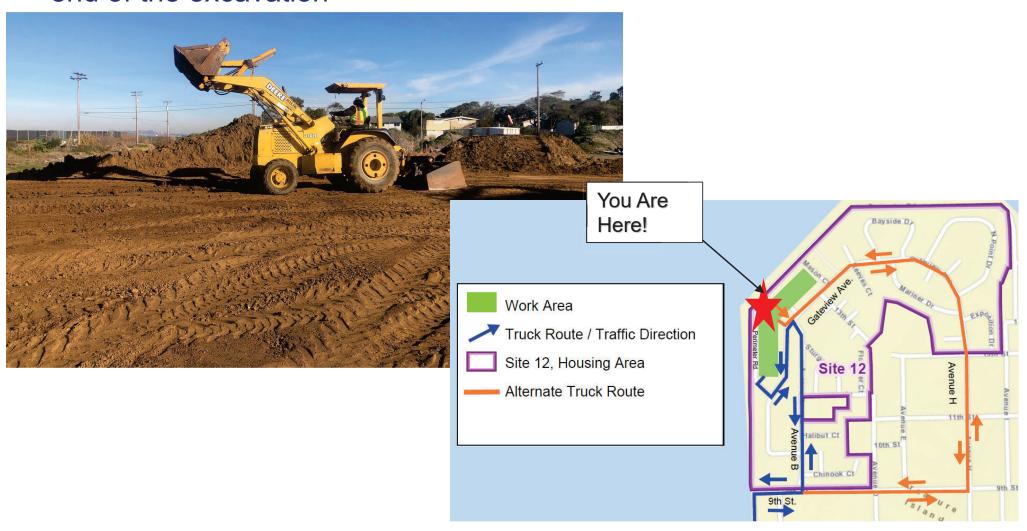
Old Westside Drive – Beginning of the Backfill





Backfill/Grading Work

New backfilled area which will extend to the south and then to the north end of the excavation





Bringing in Backfill Soil

Bridging the gap between the end of Westside Drive and perimeter road



Attachment B

Moving South





Backfill – Looking Southeast Towards Old Westside Drive



Attachment B

Southern Edge of Backfill Progress





Southern end of SWDA Westside Looking North



Attachment B

On Old Westside Drive Looking Towards City





Best Management Practices (BMPs)

❖Storm water control



BMPs - Continued

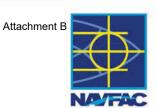




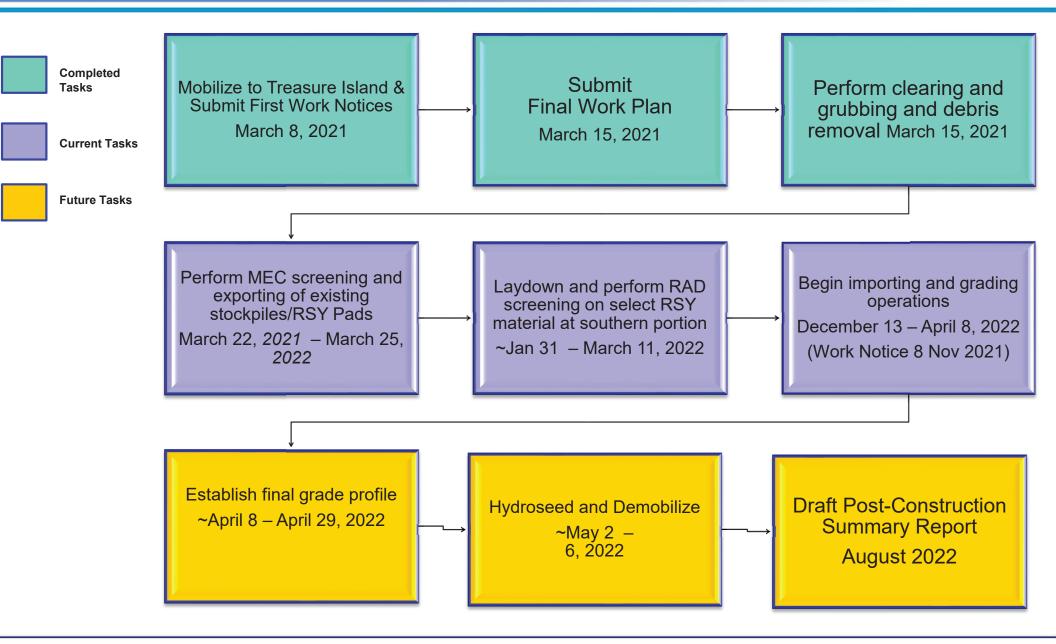
Filter fabric and sand bags to protect existing storm drains

Sweeping haul route into site – Gateview and Old Westside Drive





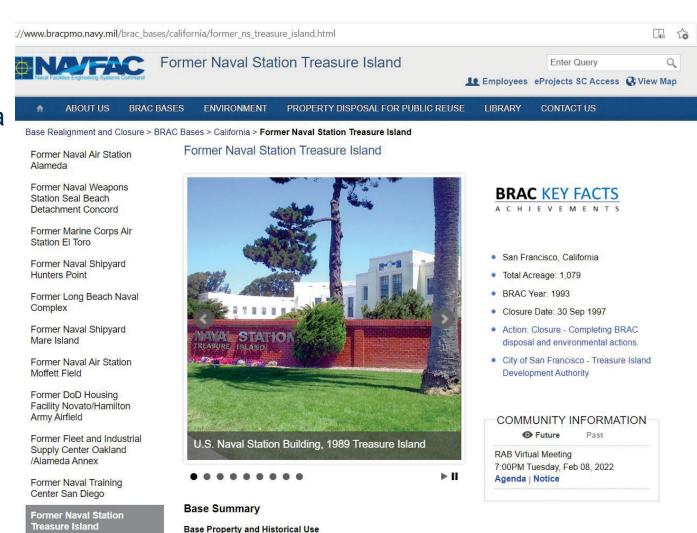
Site 12 SWDA NTCRA Project Schedule



Community Relations

***BRAC PMO Website**

- Documents
- Work Notices
- **❖**Air Monitoring Data
- **❖**RAB info
- Other useful links





2022 Basewide Monitoring Program Update

Former Naval Station Treasure Island

2/8/22



2022 Basewide Monitoring Program Sites





IR Site 6 Status and Monitoring Objectives

Background

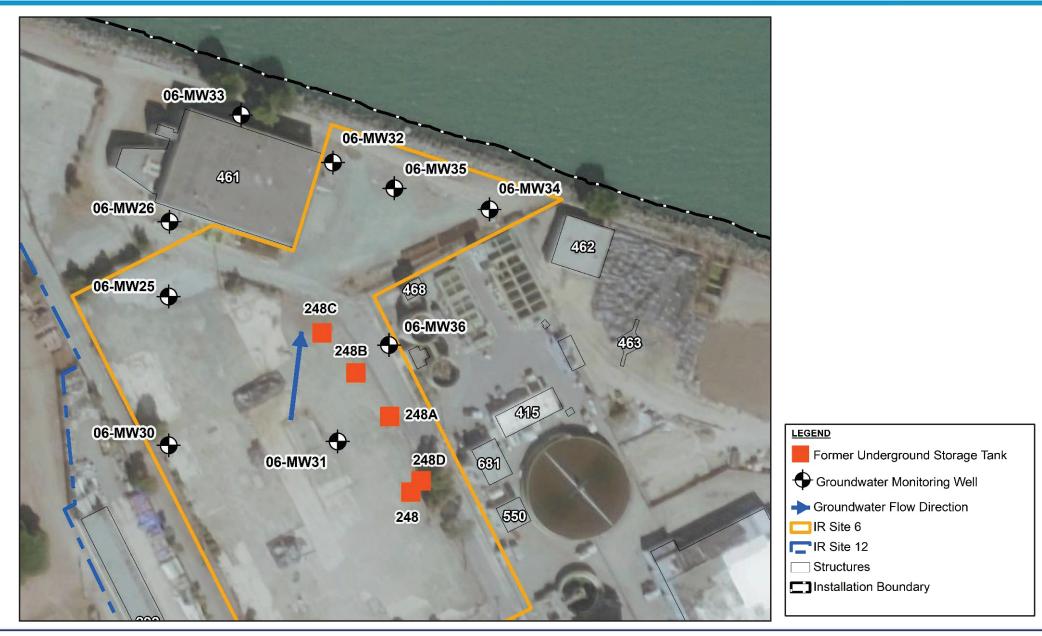
- ❖ Land Use Controls is the remedy in place since (2016)
 - Limited groundwater monitoring was due to former petroleum tanks.
- New monitoring requirements triggered additional monitoring for Perand Polyfluoroalkyl Substances (PFAS) and arsenic

Monitoring Objectives for 2022

- Collect PFAS data in support of the planned RI
- Evaluate arsenic in groundwater based on the planned revision of the Remedial goal
 - Per findings from the five-year review process
- Evaluate residual petroleum to support UST 248 site closure
- Quarterly Monitoring at Nine Wells
 - ❖ PFAS Arsenic TPH



IR Site 6 Groundwater Monitoring Locations



2/8/22

IR Site 12 – Gateview Petroleum Area Status and Monitoring Objectives



Background

- Time Critical Removal Action (TCRA) implemented
 - TPH removal to eliminate mobilization of natural arsenic in soil.
- ❖ Post-TCRA Quarterly GW Monitoring focusing on TPH and arsenic.
- Monitoring results suggest excavation significantly reduced the ecological concern to the bay.

❖ Monitoring Objectives for 2022

- Continue monitoring to establish trends regarding reduction in arsenic and TPH
- Determine progress of natural attenuation
- Quarterly sampling at 13 wells
 - TPH and arsenic

IR Site 12 – Solid Waste Disposal Areas (SWDAs) Status and Monitoring Objectives



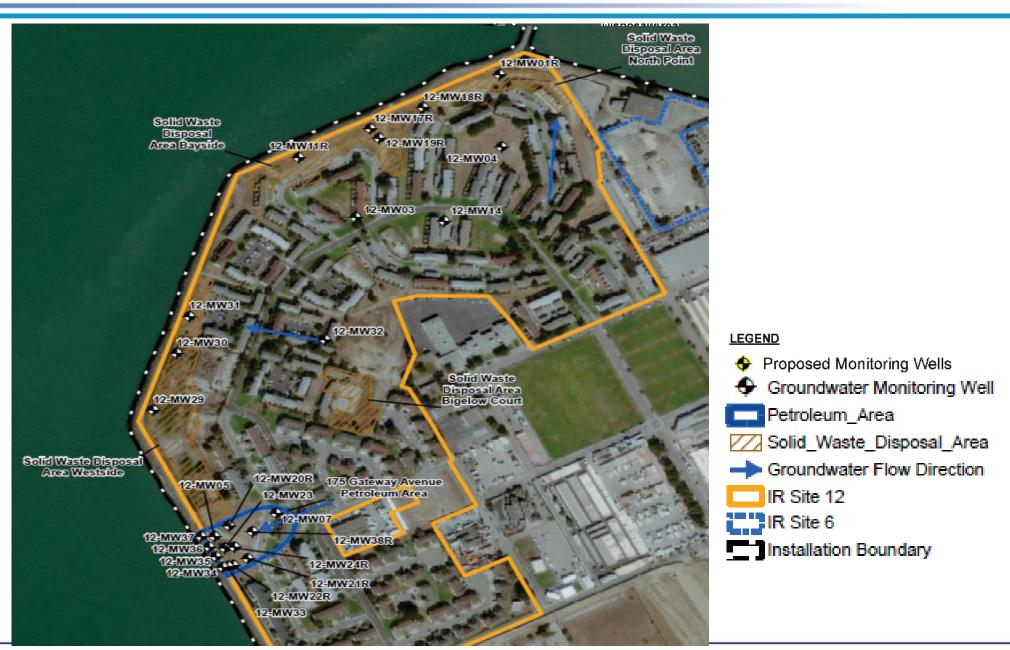
Background

- Multiple excavations have been performed at SWDAs
- Bayside and Westside SWDAs still being monitored to support CERCLA documents (Feasibility Study Addendum)

❖ Monitoring Objectives (SWDAs) for 2022

- Evaluate presence of residual petroleum at Westside Drive
- ❖ Continue evaluation of metals and Radium-226
- ❖ Install/replace four additional groundwater monitoring wells at Westside.
- ❖ Data will support the second feasibility study addendum.
 - ❖ Bayside/NP Annual monitoring of five wells
 - Metals and Ra-226
 - ❖ Westside Annual monitoring of existing three wells and four new wells
 - ❖ TPH and Ra-226

IR Site 12 Monitoring Locations



Close-up of Gateview Avenue Wells





IR Site 21 Status and Monitoring Objectives

Background

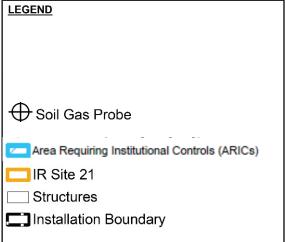
 Land use controls is the remedy in place because site not acceptable for unrestricted use (2013)

❖ Monitoring Objectives for 2022

- ❖ Evaluate the protectiveness of remedy for the 2025, five-year review
- ❖ Semi- Annual monitoring for soil gas in 5 probes
 - ❖ Volatile Organic Compounds (VOCs)

IR Site 21 Monitoring Locations







IR Site 24 Status and Monitoring Objectives

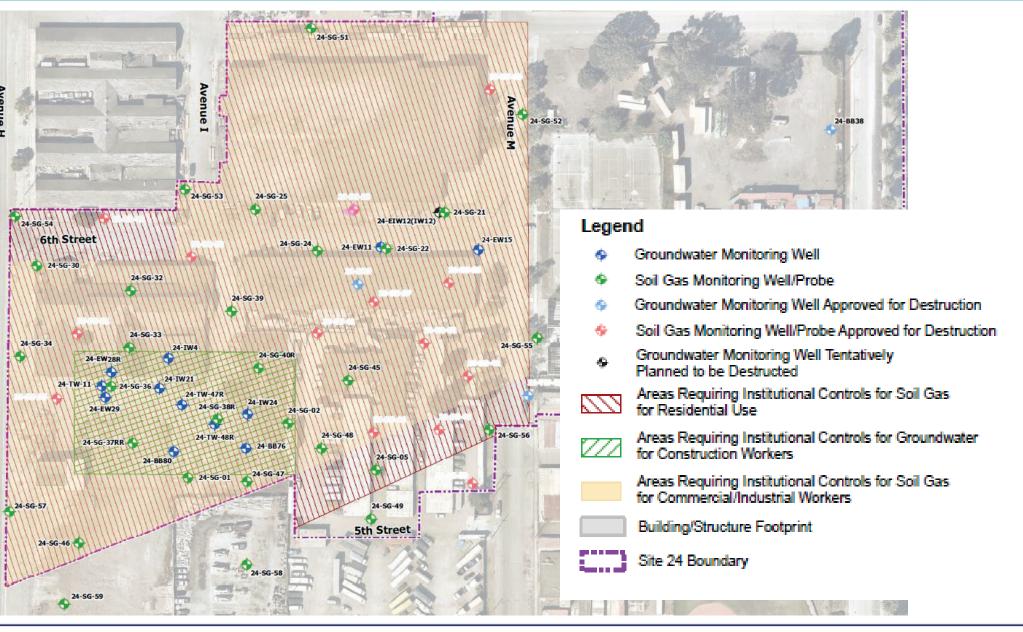
Background

- Soil excavation and groundwater treatment remedy implemented
- ❖ Land Use Controls are in place (2019)
- Remedial goals need to be revised per the 2020 five-year review
 - Will result in revision of areas requiring institutional controls.
- ❖Concentrations of chemicals of concern remaining below remedial goals will allow for some optimization of the Site 24 monitoring network

Monitoring Objectives for 2022

- Continue monitoring VOC concentrations in groundwater to determine trends towards remedial goals
- Evaluate soil gas concentrations around the perimeter of the area requiring institutional controls to help determine potential revisions
- Coordinate monitoring plan with redevelopment plans
 - ❖ Soil gas 18 wells quarterly 10 wells annually
 - ❖ Groundwater 4 wells quarterly 8 wells annually

IR Site 24 Monitoring Locations



2/8/22

Questions?

