



Treasure Island Second Five-Year Review

Naval Station Treasure Island
Restoration Advisory Board Meeting

Tahirih Linz

BRAC Environmental Coordinator – Navy RAB Co-Chair

September 15, 2020

Presentation Outline



- Purpose
- Objectives
- Process
- Site Specific Overviews
- Schedule
- Questions

Purpose of a Five-Year Review



To evaluate the implementation and performance of the remedy to whether the remedy is, or will be, protective of human health and the environment.

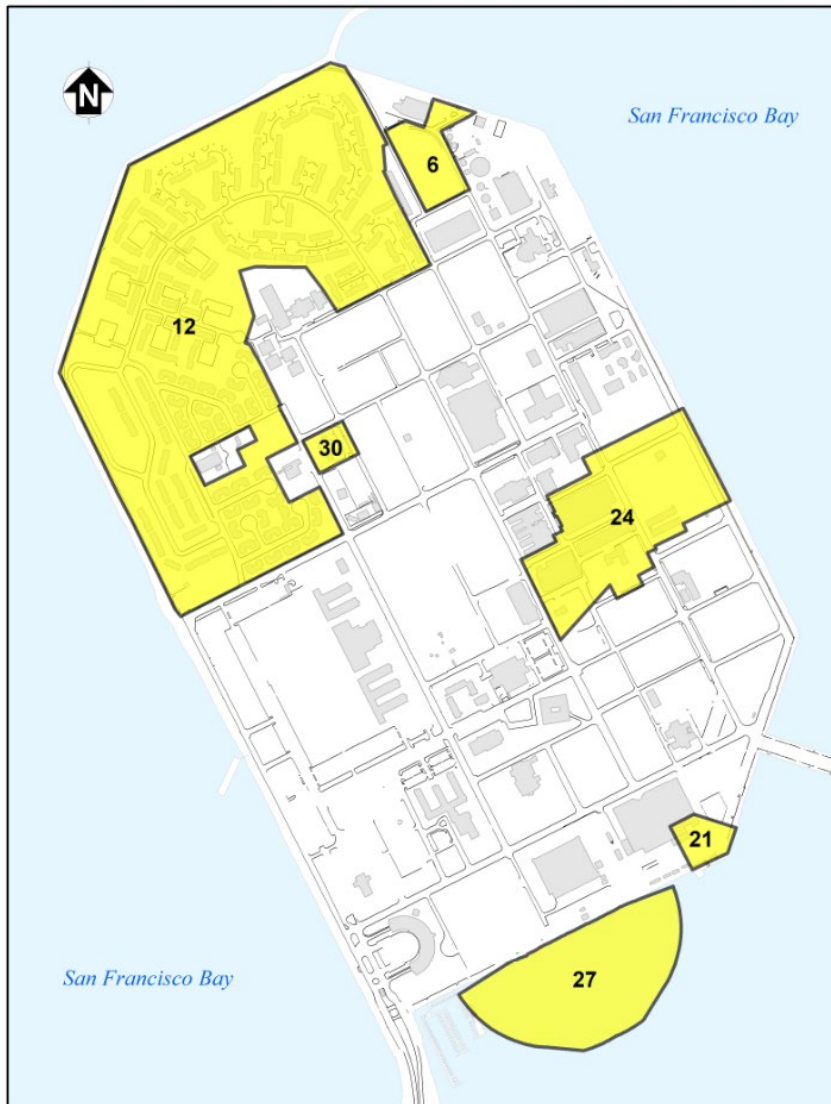


Five-Year Review Objectives



- Determine whether the remedies currently operating at Treasure Island are protective of human health and the environment
- Document the methods, findings, and conclusions of the review in a report
- Identify issues found during the review and make recommendations to address these issues

Second Five-Year Review Sites



Six sites were evaluated for this Five-Year Review: Sites 6, 12*, 21, 24, 27, and 30

The location of each site is shown in the map.

*For Site 12, the evaluation was only for groundwater within the Gateview Arsenic/TPH area.

Five-Year Review Process



- **Document Review:** Documents such as records of decision, remedial action designs, work plans, completion and monitoring reports, and annual site inspection reports were reviewed to confirm the way a remedial action was designed to work, and information about how the remedy is working based on inspection reports.
- **Site Inspection:** The Navy performed the site inspections to document current site conditions and to evaluate visual evidence of the protectiveness of the remedies at each site. The inspections were conducted January 8, 10, and 17, 2019.
- **Site Interviews:** The Navy interviewed a cross-section of stakeholders to help identify any problems or concerns with the remedies that remain to be addressed. Interviews included DTSC, the Water Board, TIDA, residents, and local community members, for a total of ten interviews.
- **Protectiveness Statement:** Information gathered during the first three steps was used to answer the question of whether the remedy for each site is protective of human health and the environment.

Community Involvement



- **Public Notices** before, during, and after the document preparation
- **Phone interviews** with community members were conducted
- Reports were made available in **information repository for public review** at the San Francisco Main Library and online (<https://www.bracpmo.navy.mil/>)
- **Fact Sheet** summarizing protectiveness statements and the path forward for each site (BRAC website and mailer) is being prepared



Second Five-Year Review Protectiveness Determinations



Protective	Protective in the Short-term	Will be Protective	Protectiveness Deferred	Not Protective
Site 21	Site 24		Site 6	
Site 27			Site 12*	
Site 30				

*Cleanup is only for groundwater within Gateview Avenue Arsenic/TPH Area

Data evaluation covers time period from **January 2014 to December 2018**

Second Five-Year Review Protectiveness Determinations



Data evaluation covers time period from
January 2014 to December 2018

Site	Current Name or Former Use	Protectiveness Determination
6	Fire Fighting Training School	Protectiveness Deferred
12	Housing Area/Old Bunker Area – Groundwater*	Protectiveness Deferred
21	Vessel Waste Oil Recovery Area	Protective
24	Former Dry Cleaning Facility	Protectiveness in the Short-term
27	Clipper Cove Skeet Range	Protective
30	Daycare Center	Protective

*Cleanup is only for groundwater within Gateview Avenue
Arsenic/TPH Area portion of Site 12

Site 6 – Fire Fighting Training School



The former Navy firefighting training school was used for nearly 50 years (1944 to 1992) for firefighting training activities.



Site 6 – Remedies



- Goal of the cleanup is to allow for open space use. No housing development is allowed.
- Environmental cleanup of metals, petroleum hydrocarbons, solvents, and dioxins in soil, groundwater, and soil gas
- The implemented remedial actions are:
 - Soil excavation and off-site disposal
 - Land Use Controls for soil, groundwater, and soil gas
 - Groundwater monitoring

Site 6 – 5YR Results and Recommendations



- No new human health or ecological risks have been identified.
- No other information has been identified to suggest that the remedy may not be protective of human health and the environment.
- No weather-related incidents, earthquakes, or other natural disasters have occurred that affect the protectiveness of the remedies.
- **Protectiveness determination** of the remedy for Site 6 is **deferred** until the nature and extent of emerging contaminants* (per- and polyfluoroalkyl substances [PFAS]) at the site are investigated.
- In addition, the cleanup goal for arsenic in groundwater is no longer considered protective. The cleanup goal for arsenic will be revised to a lower concentration and monitored.

*Emerging contaminants are those chemicals that were previously not regulated. As scientists get new information, sometimes different chemicals are determined to pose a potential risk to humans or the environment, and a site must be evaluated for those.

Site 12 – Housing Area/Old Bunker Area



For the purposes of this Five-Year Review, *only the remedy in place for groundwater in the Gateview Arsenic/TPH Area is subject to review.* The Gateview Arsenic/TPH Area is located along the western shoreline of TI in the southern portion of Site 12.



Site 12 – Remedies



- Goal of the cleanup is to support residential and open space use
- Environmental cleanup from ROD #1 includes removing TPH in soil to address arsenic in groundwater
- The implemented remedial actions from ROD #1 are:
 - Soil excavation
 - Groundwater monitoring

Site 12 – 5YR Results and Recommendations



- No new human health or ecological risks have been identified.
- No other information has been identified to suggest that the remedies may not be protective of human health and the environment.
- No weather-related incidents, earthquakes, or other natural disasters have affected the protectiveness of the remedy.
- **Protectiveness determination** of the groundwater remedy for Site 12 is **deferred**. Additional information must be obtained from ongoing groundwater monitoring under the basewide monitoring program and by consideration of the recent DTSC change in toxicity criteria for arsenic.

Site 21 – Vessel Waste Oil Recovery Area



Site 21 is adjacent to Clipper Cove and covers about two acres. The site was transferred from the Navy to TIDA in 2016.

Site 21 is currently used as a sailing school and boat storage facility. Building 3 is subleased by TIDA for various industrial uses.



Site 21 – Remedies



- Goal of the cleanup is to allow for continued current use of property – commercial
- Environmental cleanup of chlorinated solvents in groundwater
- The implemented remedial actions include:
 - Land Use Controls
 - Groundwater and soil gas monitoring
- Soil gas monitoring conducted in 2018 and evaluated for Second Five-Year Review

Site 21 – 5YR Results and Recommendations



- No human health or ecological risks have been identified.
- No other information has been identified to suggest that the remedies may not be protective of human health and the environment.
- No weather-related incidents, earthquakes, or other natural disasters have affected the protectiveness of the remedies.
- **Protectiveness determination** of the remedy for Site 21 is **protective** of human health and the environment, and no additional information or action is required at this time. Additionally, soil gas data will be collected biannually until the next Five-Year Review.

Site 24 – Former Dry Cleaning Facility



Site 24 is approximately 20 acres in the east-central portion of TI containing Building 99, which was used as both a laundry facility and, intermittently, as a dry cleaning facility from 1942 to 1977.



Site 24 – Remedies



- Goal of the cleanup is to support future open space/recreational use
- Environmental cleanup of chlorinated solvents in groundwater
- The implemented remedial actions include:
 - Excavation
 - Active remediation
 - Land Use Controls
 - Groundwater and soil gas monitoring

Site 24 – 5YR Results and Recommendations



- No new human health or ecological risks have been identified.
- No other information has been identified to suggest that the remedies may not be protective of human health and the environment.
- No weather-related incidents, earthquakes, or other natural disasters have affected the protectiveness of the remedy.
- **Protectiveness determination** of the remedy at Site 24 is **protective in the short term**. However, regulatory cleanup levels have changed, and the current cleanup levels may not be protective of future residents or workers. In order to be protective, the cleanup goals will be reevaluated and revised, and additional soil gas monitoring will be done.

Site 27 – Clipper Cove Skeet Range



Site 27 is a former naval skeet range and consists of approximately 19 offshore acres located between TI and YBI in an area known as Clipper Cove. Lead shot from target practice at the skeet range contaminated the sediment beneath the bay.



Site 27 – Remedies



- Goal of the cleanup is to support future marina use while protecting wildlife
- Environmental cleanup of lead shot to minimize ingestion by ecological receptors
- The implemented remedial actions includes:
 - Removal of top layer of sediment and lead shot
 - Placement of armor rock to limit access to buried shot by receptors
 - Land Use Controls (restrictions on marine activities)
 - Bathymetric surveys every 5 years in support of Five-Year Reviews

Site 27 – 5YR Results and Recommendations



- No new human health or ecological risks have been identified.
- No other information has been identified to suggest that the remedies may not be protective of human health and the environment.
- No weather-related incidents, earthquakes, or other natural disasters have affected the protectiveness of the remedy.
- **Protectiveness determination** of the remedy for Site 27 is **protective** of human health and the environment, and no additional information or action is required at this time.

Site 30 – Daycare Center



Building 502, Daycare Center, is located south of the Treasure Island Elementary School and east of the corner of Avenue D and 11th Street. The site was subject to investigation prior to leasing to the City of San Francisco.

Site 30 – Remedies



- Goal of the cleanup was to comply with requirements of DTSC's School Property Evaluation and Cleanup Division to allow for safe use as a childcare facility
- Environmental cleanup of dioxins in soil
- The implemented remedy includes:
 - Excavation, removal, and disposal of contaminated soil surrounding Building 502
 - Land Use Controls to restrict soil disturbance beneath concrete slab of Building 502 foundation

Site 30 – 5YR Results and Recommendations



- No new human health or ecological risks have been identified.
- No other information has been identified to suggest that the remedies may not be protective of human health and the environment.
- No weather-related incidents, earthquakes, or other natural disasters have affected the protectiveness of the remedy.
- **Protectiveness determination** of the remedy for Site 30 is **protective** of human health and the environment, and no additional information or action is required at this time.

Second Five-Year Review Issues and Recommendations



Issues identified during the Five-Year Review were assigned a follow up action and milestones for completion by the responsible party

Site	Name	Milestone	Responsible Party
6	Investigate PFAS	May 2021	Navy
	Revise Arsenic Groundwater Remedial Goal	May 2023	Navy
	Evaluate Redevelopment Plans in Next 5YR	May 2025	Navy
12	Re-evaluate Construction Worker Groundwater Risk	May 2021	Navy
21	Collect Soil Gas Data	May 2025	Navy
24	Ensure Accessible Wells	May 2021	Navy
	Delineate Soil Gas Plume	May 2021	Navy
	Revise Soil Gas Remedial Goals	May 2023	Navy
27	Implement Signage per Site Management Plan	May 2021	TIDA
	Speed Limit Enforcement Provisions	May 2022	TIDA
30	<i>NONE</i>	--	--

Questions?

