



You are invited to the Navy's next
Restoration Advisory Board Meeting
Tuesday, February 7, 2023
at 7:00 p.m.

Held Virtually on Microsoft Teams

(Closed Captioning Available)

For Restoration Advisory Board meeting details,
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janet.m.lear.civ@us.navy.mil

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Treasure Island BRAC Environmental
Coordinator
Navy BRAC Program Management Office West
33000 Nixie Way, Building 50
San Diego, CA 92147



SEE INSIDE FOR INFORMATION ABOUT IR SITE 12, HOUSING AREA AT FORMER NAVAL STATION TREASURE ISLAND

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Former Naval Station Treasure Island San Francisco, California IR Site 12 Conceptual Site Model Update Fact Sheet

November 2022



Introduction

The Department of the Navy (Navy) developed this fact sheet to provide information on an update to the Conceptual Site Model (CSM) for Installation Restoration (IR) Site 12, the current housing area and associated open spaces, at Former Naval Station Treasure Island, San Francisco, California. Figure 1 shows the updated disposal area boundaries and the boundaries of the housing areas.

A CSM is a tool used to identify potential contamination source locations and how the contamination may move through the environment. The CSM is also used to develop future cleanup actions at a site. CSMs are “living documents” that are updated as new information is developed. The IR Site 12 CSM has been updated to include evaluation of historical documentation not previously identified and to incorporate data from all investigations performed since the last CSM update in 2014. This fact sheet summarizes the changes to the CSM, focusing on the overall history of rubbish disposal within IR Site 12, and provides additional information on a previously identified disposal area, now referred to as the Central Rubbish Area (CRA).

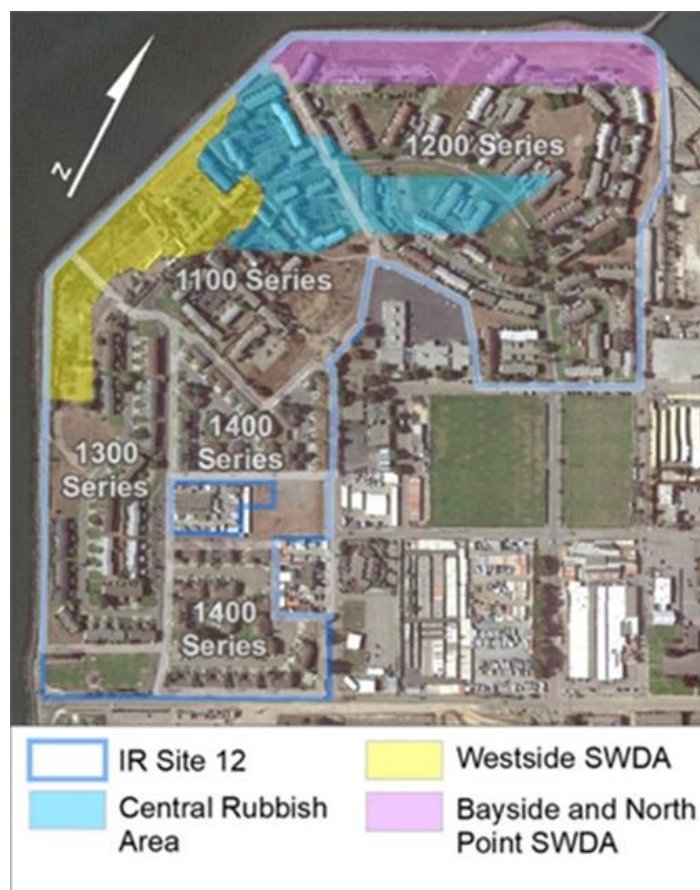


Figure 1: IR Site 12

Key Information

- Site wide restrictions on ground-disturbing activities remain in place to prevent residents from contacting potential contamination or hazards associated with historical rubbish disposal and/or historical redistribution of rubbish during housing construction.
- All residential units within IR Site 12 remain safe for occupancy.
- Open spaces are safe for work and play.
- The CSM Update refines the previous CSM but does not significantly alter previous findings.
- The CSM Update refines the boundaries of the existing Solid Waste Disposal Areas (SWDAs) and a renamed disposal area, the Central Rubbish Area (CRA).
- The CRA does not contain munitions.

CSM Update Terminology

This CSM Update standardizes the terms used in previous documents describing waste disposal.

Rubbish: Household, sanitary, or industrial waste, which was disposed via burial and may contain low level radiological objects (LLROs). Additionally, rubbish disposed of from 1945 to 1947 within the identified Munitions Response Site (MRS) areas may also contain munitions.

Construction and Demolition (C&D) Debris: Building and pavement materials such as lumber, concrete, and asphalt derived from the demolition of buildings or pavement.

Debris: Includes both rubbish and C&D debris.

IR Site 12 Rubbish Disposal History

Treasure Island was built in the late 1930s as the location of the Golden Gate International Exposition and was subsequently relinquished to the Navy. Initial rubbish disposal activities were documented near the end of the runway in the northwest corner of IR Site 12 beginning in 1942, within the footprint of what is now called Westside SWDA.

Between 1942 and 1945, the Navy constructed multiple ammunition storage bunkers in the northern portion of IR Site 12. Rubbish disposal activities continued at the end of the runway.

In September 1945, Treasure Island became a major disembarkation point for returning troops at the end of World War II. Munitions items that are likely linked to those returning troops were recovered at Westside and Bayside SWDAs. Analysis of these items indicates disposal likely occurred between September 1945 and early 1947, corresponding to the end of World War II and the return of those troops.

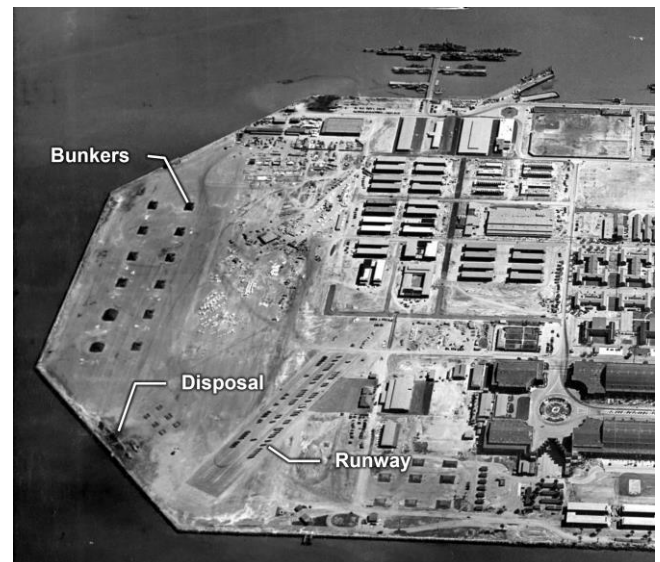
In 1946, the ammunition facility was decommissioned. By 1947, the ammunition bunkers were converted to general storage and the immediate surrounding areas were used for disposal of rubbish. By 1951, a large waste incinerator was constructed at Northpoint SWDA.

Additionally, rubbish disposal at greater depths was documented within Westside SWDA.

Beginning in the 1960s, the ammunition bunkers were removed from IR Site 12 and the area was graded in phases in preparation for the construction of Navy housing. The housing areas were developed in four phases:

- 1100-series (1965)
- 1200-series (1972)
- 1300-series (1974)
- 1400-series (1989)

During site preparation activities to ready the areas for housing construction, some rubbish materials within the disposal areas were disturbed and redistributed during excavation and ground compaction. Navy remedial investigations conducted over the past 20 years have found evidence that some rubbish may have been redistributed to areas outside their original disposal location through site preparation grading prior to housing construction.



**Photo 1: Northern Portion of Naval Station
Treasure Island (1944)**

Solid Waste Disposal Areas (SWDAs)

Previous remedial investigations identified the larger disposal locations as SWDAs – Westside SWDA, located along the western perimeter of IR Site 12, and Bayside and Northpoint SWDAs located along the northern perimeter. The original SWDA boundaries (Figure 2)

were identified through evaluation of historical site data (aerial photographs, reports, and construction drawings) and site investigation (trenching, borings, inspection, and sample collection). Disposal in the SWDAs included LLROs, munitions, hazardous materials, and wastes associated with a former burn pit and incinerator.

The analysis performed for the current CSM Update indicates that Bigelow Court, an area formerly described as a SWDA, is not an original disposal area. Rubbish found in the area was likely due to soil-grading activities rather than from use of the area as a waste-disposal site.

Housing residents within the historical SWDA footprints are not at risk of exposure to potential subsurface hazardous materials based on the depths of the materials. Radiological scans conducted from 2013 to the present have confirmed radiation levels within and outside the housing areas and associated open spaces are safe.

Munition Disposal

Disposal of World War II-era munitions occurred in Westside and Bayside SWDAs near the end of the war. The Navy has performed several cleanup investigations involving excavation and trenching throughout IR Site 12, and no munition items have been recovered outside of the SWDAs.

Most of the munition items were encountered at depths greater than 6 feet below ground surface (bgs) at Westside SWDA and greater than 4.5 feet bgs at Bayside SWDA. There is no evidence to indicate munitions were disposed of or transported elsewhere on the island (i.e., outside of the SWDAs).

A previously distributed December 2021 Fact Sheet focused on the history of munitions disposal and cleanup actions within portions of IR Site 12 SWDAs (which can be found at https://media.defense.gov/2022/Mar/22/2002960548/-1/-1/0/TI_20211129_MUNITIONS_FACT_SHEET.PDF).

Central Rubbish Area (CRA)

Additional rubbish disposal occurred in the CRA located within the north-central portion of IR Site 12. Figure 2 shows the new boundary of the CRA and the previous boundary (“Unnamed Rubbish Disposal Area”). Rubbish disposal in the CRA differs from rubbish disposal in the SWDAs. According to historical reports, the rubbish disposed of in the CRA consisted primarily of domestic sanitary waste, although evidence exists that some disposal material is associated with Navy industrial operations. Unlike the SWDAs, the CRA lacked a large burn pit, deep disposal pits, or incinerator. According to aerial photographs, disposal in the CRA occurred in the 1950s and 1960s, later than the start of disposal in the SWDAs (1940s) and after the period when munitions would have been disposed of in the SWDAs at the end of World War II (1945 – 1947).



Photo 2: Sanitary waste found within the CRA

According to the housing development plans, certain construction areas within the CRA were excavated to prevent potential soil settlement and ensure stability of building foundations. Any rubbish found was mixed with excavated soil and placed back into the excavation at a depth of approximately 2 to 4 feet below ground surface (bgs). The excavation was then backfilled to finished grade with excavated soil identified as rubbish free.

Although the CRA was reported to have received primarily household sanitary waste, three LLROs have been recovered from within the CRA boundaries. Two LLROs were discovered (and removed) near the ground surface during gamma walkover surveys, and one LLRO

was recovered (and removed) beneath a building foundation within fill material at a depth interval from ground surface to 4.5 feet bgs. The LLROs may have been deposited during original disposal activities in the CRA (1950s-1960s) or were relocated to the CRA during soil-grading activities (1965-1975) that moved them from an original disposal location within a SWDA.

During the Navy’s IR Site 12 investigation activities, all accessible areas of the exterior grounds and building interior surfaces were radiologically scanned and no other LLROs have been found in the CRA. Based on surface scans, dig restrictions, and other lines of evidence identified in the CSM, housing residents within the CRA are not at risk of exposure to potential subsurface hazardous materials.

Remedial Activities

IR Site 12 investigations showed that the highest chemical concentrations in contaminated soil were located in the three SWDAs (formally named Westside, Bayside, and Northpoint) and another documented location, now identified as the CRA.

Limited contamination was also found in areas outside of the disposal areas.

Remedial activities were conducted in these areas as described in a previously distributed February 2021 Fact Sheet (that can be found at [TI 20210218 IR SITE 12 FACTSHEET.PDF \(defense.gov\)](#)).

CSM Update

The CSM has been refined and updated as more data has been collected and additional historical documents have been reviewed. The CSM was developed in 2002 and received minor revisions in 2006, 2012, and 2014. The CSM identifies that the source of chemical contamination and low-level radiological objects (LLROs) were associated with rubbish disposal.

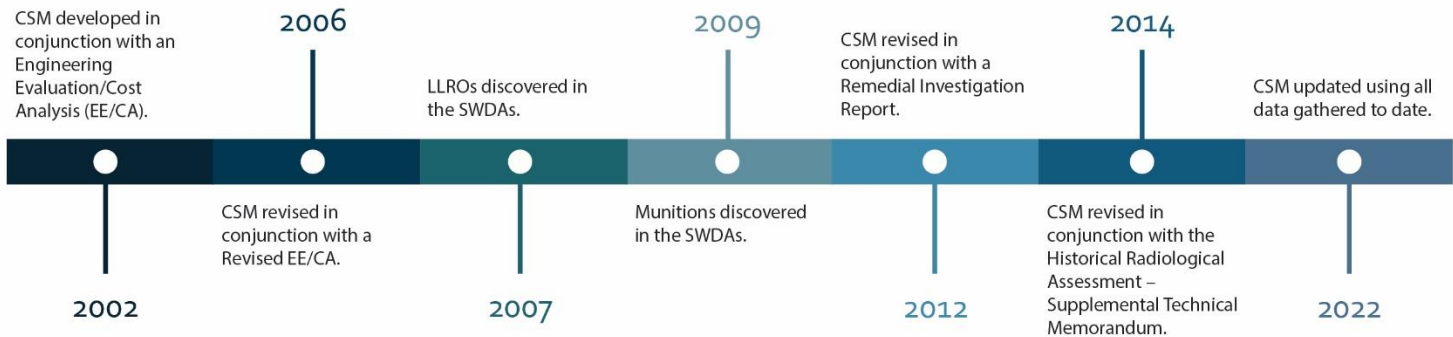
This CSM Update identifies that soil and buried material from within the disposal areas were potentially relocated to other areas of IR Site 12 during soil-grading activities associated with construction of the residential housing units. This CSM Update is consistent with the previous CSM, refines the disposal boundaries, defines the potential maximum depth of graded material outside of the disposal areas, and addresses munitions disposal. Additionally, an evaluation of the 1400-series housing area determined that the area has not been impacted by grading activities. Figure 2 shows the previous disposal boundaries and the updated boundaries from the CSM Update.

Next Steps

This CSM Update does not significantly alter the findings of the previous CSM but instead refines it and provides information needed to support the selection of a future remedy under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedy selection process.

A Feasibility Study Addendum is the next step in the CERCLA process for IR Site 12. The addendum will evaluate cleanup alternatives to address munitions and radiological concerns within IR Site 12.

CSM TIMELINE



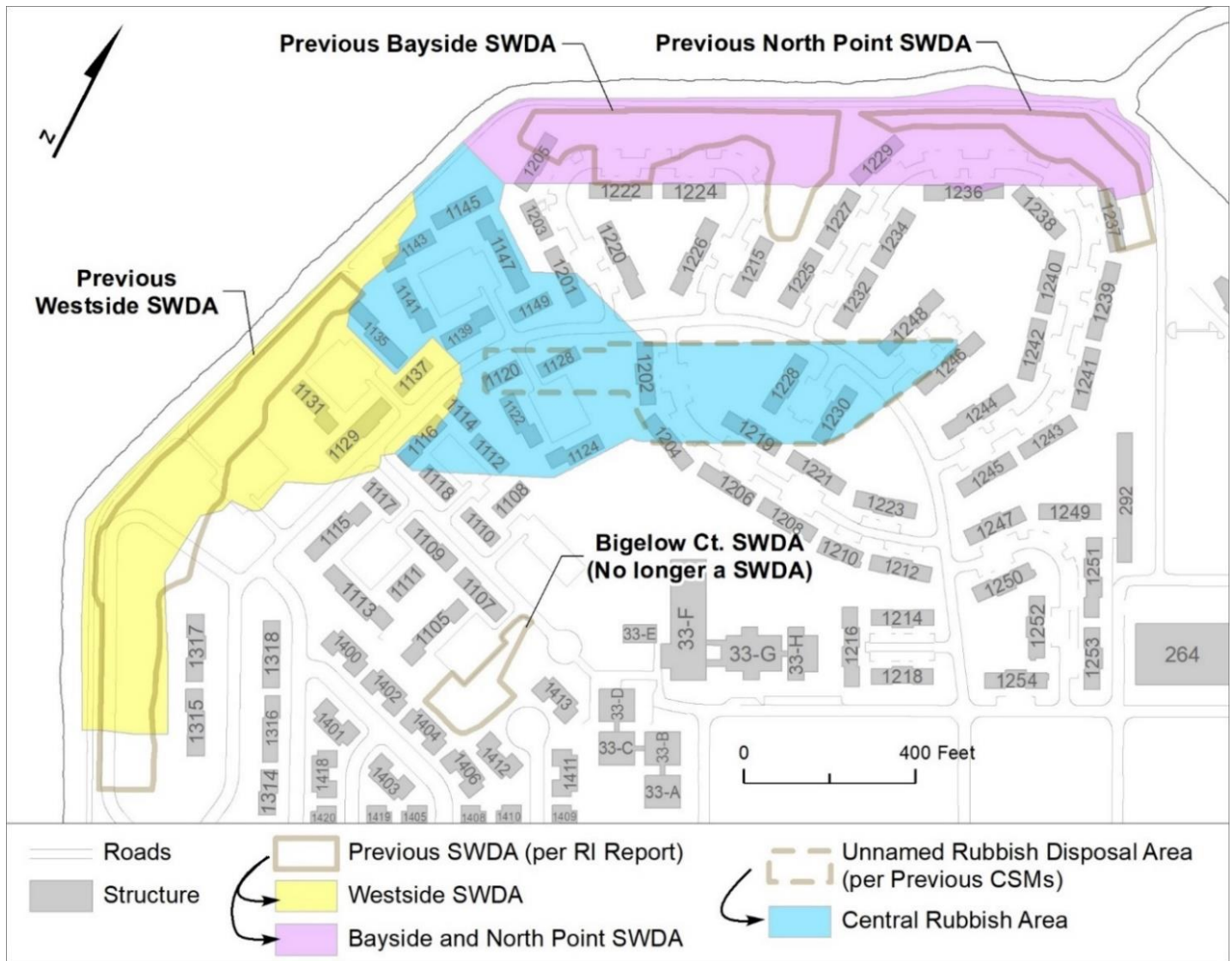


Figure 2: Updated SWDA and CRA

Impact of New Information

- Existing site wide restrictions on ground-disturbing activities will remain in place to prevent residents from contacting potentially-hazardous materials.
- All residential units within IR Site 12 remain safe for occupancy.
- Open spaces are safe for work and play.
- Remedial alternatives will be evaluated based on the CSM Update to address munitions and radiological concerns within IR Site 12.
- There is no evidence that rubbish disposal activities or redistribution of rubbish occurred within the 1400-series housing area.
- This CSM Update improves our understanding of where the original disposal occurred and where rubbish may have been moved and reburied within IR Site 12.



**Former Naval Station Treasure Island
San Francisco, California
IR Site 12 Conceptual Site Model Update Fact Sheet**



Contact Information

The Navy appreciates the cooperation of residents during prior fieldwork in the Housing Area.

For general information, please contact:

Ms. Janet Lear

Navy BRAC Program Management Office West

Email: janet.m.lear.civ@us.navy.mil

Phone: (619) 524-1924

To be added to the Base Realignment and Closure (BRAC) website mailing list, please email Janet Lear at janet.m.lear.civ@us.navy.mil.

Visit the Former Naval Station Treasure Island BRAC website for Public Notices and Restoration Advisory Board meeting details: <https://www.bracpmo.navy.mil/BRAC-Bases/California/Former-Naval-Station-Treasure-Island/>. Use the tabs on the left hand side to select "Meeting Material" or "Public Notices."



Photo 3: Treasure Island during the Golden Gate International Exposition (1939-1940)