

## CALIFORNIA ENVIRONMENTAL QUALITY ACT NEGATIVE DECLARATION

Department of Toxic Substances Control  
Brownfields and Environmental Restoration Program  
700 Heinz Avenue  
Berkeley, CA 94710-2721

Subject:  DRAFT  FINAL  MITIGATED

Project Title: Remedial Action Plans – Baker Beach Disturbed Areas 1A and 2

State Clearinghouse No.:

Project Location: Presidio of San Francisco

County: San Francisco

**Project Description:**

The Department of Toxic Substances Control (DTSC) is considering approval of Remedial Action Plans (RAPs) prepared by The Presidio Trust (Trust) for two sites at the Presidio of San Francisco (Presidio). The sites are in close proximity to each other and are known as Baker Beach Disturbed Area 1A (BBDA 1A) and Baker Beach Disturbed Area 2 (BBDA 2), respectively.

For DTSC, the "Project" subject to review under CEQA is the approval of the two RAPs, which would lead to excavation and disposal of contaminated soil and other material found at the sites. The RAPs for the remediation Project are incorporated by reference. They are:

- Draft Feasibility Study and Remedial Action Plan, Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California, AMEC Environmental & Infrastructure, Inc. (AMEC), 2012 and
- Draft Feasibility Study and Remedial Action Plan, Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California, AMEC, 2012.

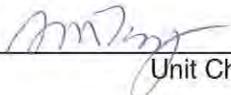
The proposed remediation activities would occur in the spring and summer of 2013 and would consist of excavation, characterization, transportation, and off-site disposal of excavated material. At BBDA 1A, the action would remove asphalt material and soil contaminated by chemicals of concern (COCs). At BBDA 2, the action would remove debris and fill soil contaminated by COCs. Post-remediation site restoration would occur in the fall at the beginning of the wet season.

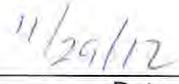
Finding Of Significant Effect On Environment: *(An Initial Study supporting this finding is attached.)*

After conducting an Initial Study of the potential environmental impacts of the proposed project, DTSC has determined that implementation of the project will not result in any significant environmental impacts.

**Mitigation Measures:**

DTSC has determined that no additional mitigation measures would be required beyond those incorporated as part of the project.

  
\_\_\_\_\_  
Unit Chief Signature

  
\_\_\_\_\_  
Date

Denise Tsuji  
\_\_\_\_\_  
Unit Chief Name

Unit Chief  
\_\_\_\_\_  
Unit Chief Title

(510) 540-3824  
\_\_\_\_\_  
Phone #

## CALIFORNIA ENVIRONMENTAL QUALITY ACT INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following document for this project in accordance with the California Environmental Quality Act (CEQA) [Pub. Resources Code, div. 13, § 21000 et seq] and accompanying Guidelines [Cal. Code Regs., tit. 14, § 15000 et seq].

|   |                                |                               |
|---|--------------------------------|-------------------------------|
| PROJECT TITLE:<br>Remedial Action Plans – Baker Beach Disturbed Areas 1A and 2, Presidio of San Francisco |                                | CALSTARS CODING:<br>_201239__ |
| PROJECT ADDRESS:<br>Presidio of San Francisco.  | CITY:<br>San Francisco         | COUNTY:<br>San Francisco      |
| PROJECT SPONSOR:<br>The Presidio Trust  | CONTACT:<br>Ms. Eileen Fanelli | PHONE:<br>415-561-4259        |

APPROVAL ACTION UNDER CONSIDERATION BY DTSC:

|  |  |  |                                       |
|--|--|--|---------------------------------------|
| <input type="checkbox"/> Initial Permit Issuance | <input type="checkbox"/> Permit Renewal                  | <input type="checkbox"/> Permit Modification | <input type="checkbox"/> Closure Plan |
| <input type="checkbox"/> Removal Action Workplan | <input checked="" type="checkbox"/> Remedial Action Plan | <input type="checkbox"/> Interim Removal     | <input type="checkbox"/> Regulations  |
| <input type="checkbox"/> Other (specify):        |  |  |                                       |

STATUTORY AUTHORITY:

California H&SC, Chap. 6.5     California H&SC, Chap. 6.8     Other (specify):

|  |                       |                        |
|--|-----------------------|------------------------|
| DTSC PROGRAM/ ADDRESS:<br>Brownfields and Environmental Restoration Program<br>700 Heinz Avenue<br>Berkeley, California 94710-2721 | CONTACT:<br>Lori Koch | PHONE:<br>510-540-3951 |
|--|-----------------------|------------------------|

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- *Draft Feasibility Study and Remedial Action Plan, Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California* (Draft FS/RAP) (AMEC Environmental & Infrastructure, Inc. (AMEC), 2012a) and
- *Draft Feasibility Study and Remedial Action Plan, Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California* (Draft FS/RAP) (AMEC, 2012b).

(References used in this Initial Study are listed in Attachment A. Abbreviations and acronyms are listed in Attachment B.)

The proposed remediation activities would occur in the spring and summer of 2013 and would consist of excavation, characterization, transportation, and off-site disposal of excavated material. At BBDA 1A, the action would remove asphalt material and soil contaminated by chemicals of concern (COCs). At BBDA 2, the action would remove debris and fill soil contaminated by COCs. Post-remediation site restoration would occur in the fall at the beginning of the wet season.

The Presidio occupies 1,491 acres at the north end of the San Francisco peninsula. Figure 1 indicates the location of the two Project sites within the Presidio; Figure 2 shows the sites in the context of their immediate surroundings. (Figures referenced in the text are in Attachment C to this Initial Study.)

For 146 years, from 1848 through 1994, the Presidio was a U.S. Army (Army) installation. On October 1, 1994,

the Presidio was transferred to the National Park Service (NPS) and became part of the Golden Gate National Recreation Area (GGNRA). In 1998, The Presidio Trust (Trust), a single-purpose federal agency, was granted jurisdiction over 1,168 acres of the Presidio. This area (known as Area B) is managed by the Trust in accordance with the Presidio Trust Management Plan (PTMP)(Trust, 2002a). NPS has jurisdiction over approximately 320 acres, the balance of the Presidio; this acreage is known as Area A and is along the Presidio's shore front. See Figure 1. BBDA 1A and BBDA 2 are in Area A, which is managed according to the General Management Plan Amendment (GMPA) (NPS, 1994). However, the Trust has the authority and responsibility to manage the remediation of contamination throughout the Presidio, in both Trust and NPS jurisdictional areas.

This Initial Study presents an overview of the activities proposed in the RAPs for BBDA 1A and BBDA 2. This is followed by an analysis of the potential impacts of the proposed Project. Cumulative impacts are evaluated assuming a worst-case scenario, where the Project and other planned projects would be implemented concurrently.

The environmental impact analyses and sections of the Initial Study are presented on the following pages:

|                                      |         |  |         |
|--------------------------------------|---------|--|---------|
| 1. Aesthetics                        | Page 8  | 12. Noise                                | Page 36 |
| 2. Agricultural and Forest Resources | Page 10 | 13. Population and Housing               | Page 40 |
| 3. Air Quality                       | Page 11 | 14. Public Services                      | Page 41 |
| 4. Biological Resources              | Page 15 | 15. Recreation                           | Page 42 |
| 5. Cultural Resources                | Page 19 | 16. Transportation and Traffic           | Page 43 |
| 6. Geology and Soils                 | Page 22 | 17. Utilities and Service Systems        | Page 46 |
| 7. Greenhouse Gas Emissions          | Page 26 | Mandatory Findings of Significance       | Page 49 |
| 8. Hazards and Hazardous Materials   | Page 28 |  |         |
| 9. Hydrology and Water Quality       | Page 31 | Attachment A: References                 |         |
| 10. Land Use and Planning            | Page 34 | Attachment B: Abbreviations and Acronyms |         |
| 11. Mineral Resources                | Page 36 | Attachment C: Figures                    |         |

### Site Settings and Future Land Uses

BBDA 1A and BBDA 2 are at the western edge of the Presidio, overlooking the Pacific Ocean south of the Golden Gate Bridge. Figures 1 and 2 show their location within the Presidio. BBDA 1A and BBDA 2 are located within the Presidio of San Francisco National Historic Landmark District (NHL) and the historic setting of these two sites are contributing elements to the NHL.

BBDA 1A is situated between Merchant Road and the Pacific Ocean on steep serpentine cliffs and contains contaminated soil and debris dating from the Army's tenure at the Presidio. The site is located on top of earthen structures associated with two historic batteries, Battery Cranston and Battery Marcus Miller. The historic batteries consist of both concrete and earthen structures. See Figure 3a.

At one point in their history, asphalt was installed on the roofs of the two batteries as a sealant and to provide additional protection. Some asphalt roofing material remains on the top of the two batteries. Areas adjacent to and downslope of the batteries contain asphalt pieces, brick fragments, and tar-permeated sand.

BBDA 1A is roughly rectangular in shape, elongated on a north-south axis. It varies from 240 to 350 feet wide and is approximately 900 feet long. The site's northern edge is about 75 feet north of Battery Cranston; its southern edge is about 50 feet south of Battery Marcus Miller. The eastern edge of the site is irregular in shape, following the west side of the exposed concrete surface of the batteries. The western edge of the site is midway downslope from the batteries, where the topography drops sharply toward the beach below. Site elevations range from 150 feet above mean sea level (MSL) on the western edge of the site, where the slope steepens, to 205 feet MSL adjacent to the batteries.

BBDA 2 is located approximately 750 feet south of BBDA 1A situated on the same bluff top and slope above Baker Beach. BBDA 2 is bounded by the Battery Godfrey parking area to the north and west, former Baker Beach Disturbed Area 2A (BBDA 2A) to the north, the slopes above Baker Beach to the west, and Magazines 28 and 29 to the east. Site elevations at BBDA 2 range from approximately 220 feet MSL on the western edge of the site to 260 feet MSL at the Coastal Trail on its eastern edge.

Post-remediation, site restoration would be conducted in those areas disturbed by the Project. This restoration would facilitate habitat and recreational development under the GMPA (NPS, 1994) and Presidio Vegetation Management Plan (VMP; NPS and Trust, 2001). The restored site vegetation will be native species used to recreate the Army's designed historic landscape, which served to blend the earthworks into the surroundings while maintaining an open field of fire. Following restoration, the areas would continue to be used as open space for public gathering and for passive recreating, including hiking the reestablished trail and visiting the historic gun emplacements. The BBDA sites are located in the GMPA Coastal Bluffs Planning Area. In accordance with the

GMPA, "(t)o protect rare and sensitive plants, visitor access will be confined to developed trails. ...The steep bluff area north of Baker Beach will be treated as a wild coast where people can discover nature's beauty and power. No new interpretive facilities will be developed in this area, except along the Coastal Trail. This trail traverses the length of the bluffs, avoiding areas that are closed to the public to protect rare and endangered species."

## Chemicals of Concern

### BBDA 1A:

As part of site investigations at BBDA 1A since 1992, soil samples have been collected and analyzed for chemicals potentially present, based on past site use. By evaluating the analytical data for the soil samples, chemicals of concern (COCs) posing potential human health or ecological risks for BBDA 1A were identified.

### COCs Presenting a Potential Human Health Risk – BBDA 1A:

Seven carcinogenic PAHs present at BBDA 1A pose a potential human health risk to recreational receptors:

- benzo(a)anthracene
- benzo(a)pyrene
- benzo(b)fluoranthene
- benzo(k)fluoranthene
- chrysene
- dibenzo(a,h)anthracene
- indeno(1,2,3-cd)pyrene

### COCs Presenting a Potential Ecological Risk:

Four metals (copper, lead, silver, and zinc) and one pesticide (4,4'-DDT) are present at concentrations that exceed Presidio preliminary remediation goals (PRGs) for special-status ecological receptors (applied to native plant community zones). Only silver and zinc are present at concentrations that exceed ecological buffer zone PRGs (applicable to landscaped zones).

### BBDA 2:

As with BBDA 1A, a number of site investigations have been undertaken at BBDA 2. COCs at BBDA 2 are as follows:

### COCs Presenting a Potential Human Health Risk:

Benzo(a)pyrene was identified as a human health COC.

### COCs Presenting a Potential Ecological Risk:

Four metals (copper, lead, silver, and zinc) and two pesticides (chlordane and DDT) are present at concentrations that exceed Presidio PRGs for special-status ecological receptors (native plant community zone). Only zinc and silver are present at concentrations that exceed ecological buffer zone PRGs (landscaped areas).

## Proposed Remedial Action

### BBDA 1A:

Alternative remedial actions evaluated in the Draft FS/RAP for BBDA 1A included:

- Alt 1: Take no action.
- Alt 2: Implement engineered controls and an administrative land use control (LUC) to limit recreational visitor access to trails.
- Alt 3: Excavate and dispose of asphalt source material and COC-impacted soil.
- Alt 4: Remove surface asphalt source material and cover the site; implement engineering controls and LUC and monitoring/maintenance programs.

Of these, the preferred alternative is Alt 3 Excavation. (See Figure 4.) Contaminated soil would be excavated, characterized, and transported to an appropriate off-site disposal facility. Asphalt debris would be recycled, if practicable. As necessary, soil would be imported to backfill the site to stabilize slopes and restore the battery earthworks.

COC-impacted soil at BBDA 1A covers approximately 2 acres to depths of up to 4.5 feet below ground surface (bgs). The estimated extent of COC-impacted soil and debris is shown in Figure 3b. The volume of contaminated soil with concentrations of COCs above cleanup levels is approximately 4,400 cubic yards (cy) *in situ* (AMEC, 2012a). During excavation and handling, the compacted material would loosen or 'fluff', and is expected to expand by about 30% to about 5,720 cy that would be hauled offsite.

### BBDA 2:

Alternative remedial actions evaluated in the Draft FS/RAP for BBDA 2 included:

- Alt 1: Take no action.
- Alt 2: Implement a land use control (LUC) to prohibit reuses of the site that would pose a risk to potential

human receptors and notify land managers of the presence and location of debris fill containing COCs at concentrations that pose a potential risk to sensitive ecological receptors.

- Alt 3: Excavate and dispose of debris fill containing COCs at concentrations posing potential risks.
- Alt 4: Place an engineered soil cover over the debris fill; implement a LUC and monitoring/maintenance programs.

For BBDA 2, the preferred alternative is Alt 3 Excavation. (See Figure 6.) Contaminated soil would be excavated, characterized, and transported to an appropriate off-site disposal facility. As necessary, soil would be imported to backfill the site to stabilize slopes.

COC-impacted soil at BBDA 2 covers approximately 0.7 acre to depths ranging up to 12.5 feet bgs. The estimated extent of COC-impacted soil and debris is shown in Figure 5b. The volume of contaminated soil with concentrations of COCs above cleanup levels is approximately 6,700 cy *in situ* (AMEC, 2012b). During excavation and handling, the compacted material is expected to expand to about 8,710 cy that would be hauled offsite.

The proposed Project provides a high level of protection to human health and the environment, is implementable, can be readily maintained and monitored, meets a significant number of green remediation goals established by DTSC (DTSC, 2009), and is cost-effective to implement. Remediation allows site restoration and development at the sites in accordance with the GMPA (NPS, 1994), VMP (NPS and Trust, 2001), and site-specific restoration plans to be developed.

### **Proposed Project Activities**

Proposed remediation activities are similar under both the BBDA 1A RAP and BBDA 2 RAP. These entail removing existing vegetation, excavating and stockpiling excavated material, characterizing the excavated material, hauling the excavated material off-site to an appropriate licensed landfill, and restoring areas disturbed by Project activities.

The Trust would undertake the remediation work in spring and summer 2013. The contractor (or contractors) would mobilize equipment and workers to the sites, which would be fenced to exclude the public. Access to the remediation sites and staging areas would be established. During excavation, samples of the soil would be taken to ensure that a sufficient depth of soil has been removed to achieve cleanup levels. The temporarily stockpiled excavated material would be loaded onto haul trucks and taken to a landfill facility licensed to accept the material. Depending on the rate of production from the excavation, the hauling phase of the Project is expected to commence before excavation is complete. The land surface would be contoured and clean soil placed as needed to re-establish earthworks at the batteries and to stabilize site slopes. Appropriate erosion prevention controls would prevent erosion until the sites are restored and replanted.

The staging area for BBDA 1A would be at or near the Merchant Road parking lot. Access to the area slated for excavation would be established by installing a temporary bridge over Battery Marcus Miller, between the site and the Merchant Road parking lot. This would provide for vehicle and equipment access and for a conveyor system. Material excavated from the site would be trucked and conveyed to the staging area for stockpiling pending characterization and hauling away.

Off-site hauling would be by way of public highways, beginning at U.S. Highway 101 near the Golden Gate Bridge. Within the Presidio, the haul route for both sites to Highway 101 is less than 1/3-mile. From BBDA 1A, any northbound trucks would travel east on Merchant Road and north on Lincoln Blvd to the northbound ramp to Highway 101, a distance of approximately 2,000 feet from where trucks first entered Merchant Road. Southbound trucks exiting the site would follow Merchant Road north for approximately 700 feet and enter southbound Highway 101.

The BBDA 2 staging area potentially would be in either the unpaved parking area immediately west of Battery Godfrey or in parking area south of Langdon Court. The haul route from BBDA 2 would be by way of Langdon Court to Lincoln Blvd. On Lincoln Blvd., the route to Highway 101 would be similar to that for BBDA 1A – using Lincoln Blvd and Merchant Road to access Highway 101 southbound (1,800 feet from the BBDA 2 site) or Lincoln Blvd to access Highway 101 northbound (2,300 feet from the BBDA 2 site).

Site restoration would be conducted in areas disturbed by the Project to stabilize the sites. This restoration would facilitate habitat and recreational development under the GMPA (NPS, 1994) and VMP (NPS and Trust, 2001).

Construction activities associated with the proposed remedial actions would consist of the following:

#### **Remediation Construction:**

##### *Excavation*

- Mobilization
- Preparation of access for equipment

- Site preparation and additional clearing and grubbing, as needed
- Excavation and stockpiling of material
- Hauling excavated material to approved landfills
- Re-grading the excavated surface and backfilling as needed.

#### *Environmental Protection and Public Safety*

- Installation of engineering controls in accordance with Best Management Practices (BMPs) used at the Presidio, including surface water runoff and erosion controls and means of keeping soil off paved roads.
- Installation of temporary exclusion fencing around the active work areas and closed trails and batteries
- Establishment of traffic control signage and devices as needed at points of entry to public roadways.

#### *Sampling and Testing*

- Sampling and testing of the soil during excavation to confirm that remediation goals are attained.
- Sampling stockpiles of excavated material for disposal.

#### **Site Restoration:**

- Restoration (seeding and planting) of areas disturbed by Project activities consistent with the GMPA (NPS, 1994), NHPA, and VMP (NPS and Trust, 2001)

Specific Project construction activities are detailed below.

**Site Preparation and Clearing:** Vegetation would be removed from each site outside of bird nesting season. Mobilization would begin thereafter. The work areas would be fenced and posted for no entry. The existing trail and batteries would be closed, with the trail temporarily rerouted around the work areas. A staging area and stockpile location would be established at each site.

**Contractor Mobilization:** The construction contractor for each site would mobilize its equipment to the work site. Equipment would remain at each site as long as needed to complete the remediation, haul the excavated material from the site, grade the excavated area, and install erosion control measures.

**Site Access:** Access would be established from the Merchant Road parking lot for BBDA 1A and from Langdon Court for BBDA 2. Rumble strips or a tire washing facility would be established to ensure that vehicles leaving a site do not carry soil onto public roads.

Standard stormwater pollution prevention plan (SWPPP) BMPs used at the Presidio would be implemented to prevent erosion of disturbed areas and movement of sediment to areas outside the work area. These practices include but are not limited to soil tracking controls such as tire sweeping/washing and road sweeping; erosion controls such as silt fencing and straw wattles in disturbed areas; dust control including vehicle speed restrictions and the use of water on access routes; and drainage inlet protection as needed, including sand bags around drainage inlets and filter fabric within inlets that could be affected. Other soil stabilization measures may include use of binders, straw, biodegradable mats, and other methods as necessary, taking into consideration the soil conditions, slope, natural habitat, and future planting activities.

**Excavation:** At BBDA 1A, approximately 4,400 cy of in situ soil would be excavated. This would yield a volume of approximately 5,720 cy to be hauled. At BBDA 2, approximately 6,700 cy of in situ material would be excavated. This would yield a volume of approximately 8,710 cy to be hauled off site. For both remediation sites, confirmation sampling during excavation would ensure that remediation goals are met and the soil with COCs in excess of remediation standards is removed. Excavation would be accomplished using frontloaders or backhoes in level or nearly level locations on the sites and by long-reach backhoe excavators in steeper areas. The excavated material would be stockpiled prior to transport off site.

**Characterization, Transport, and Disposal of Excavated Soil and Asphalt:** Front loaders would be used to transfer material from the stockpiles to the haul trucks. It is assumed that 18 cy capacity trucks would be used.

At BBDA 1A, excavation is estimated to take 3 weeks and yield about 5,720 cy of material to be hauled off site to a landfill licensed to receive the material. An estimated 350 cy of the material to be hauled is asphalt source material. Asphalt debris will be recycled as practicable. At BBDA 2, excavation would occur over a 4 week period, resulting result in about 8,710 cy of material to be hauled offsite.

Prior to hauling off site, the excavated material would be characterized for purposes of selecting appropriate landfills for disposal. The Trust currently is planning to dispose of Class I non-RCRA waste from the sites at Buttonwillow Landfill in Kern County, and Class II and Class III waste at Potrero Hills Landfill in Solano County. If additional or alternate landfills are selected for off-site disposal after a contractor has been selected for the remedial action, the Trust would notify DTSC of the alternate landfill prior to transport of material offsite.

**Recontouring, Soil Stabilization, and Site Restoration:** Excavation would alter the current site topography at both locations and result in changes to slopes. Following excavation, each site would be graded and backfilled with imported soil to create a stable area for revegetation, as needed. For the two sites combined, an estimated total of 11,600 cy of imported fill would be required to establish the desired final surface for restoration. The earthworks in front of the batteries at BBDA 1A would be backfilled and graded. Soil on disturbed and backfilled areas would be stabilized in accordance with the final site design. Measures to stabilize the soil would include using binders, straw, biodegradable mats, and other methods as necessary, taking into account the nature of the soil and slope.

Following the remediation activity, site restoration would establish an improved open space habitat. The batteries and trail would be accessible to the public. According to the GMPA, *“(t)o protect rare and sensitive plants, visitor access will be confined to developed trails.”* Revegetation would include use of native plant species and landscape vegetation appropriate to the site’s future uses and the cultural landscape in compliance with NHPA.

**Schedule** For BBDA 1A, the remediation contractor is scheduled to mobilize to the site in March or April 2013, with the remedial action work expected to require approximately 15 weeks and be complete by June or July 2013. At BBDA 2, mobilization would occur in March or April 2013 and the work would be completed 18 weeks later, by July or August 2013. The anticipated schedule of remediation activities, in terms of work duration, is presented below.

| <b>Construction Activity Duration (weeks)</b> | <b>BBDA 1A</b>  | <b>BBDA 2</b>   |
|---|-----------------|-----------------|
| Preconstruction Activities                    | 1 to 3          | 1 to 3          |
| Mobilization                                  | 1 to 3          | 1 to 3          |
| Excavation                                    | 3 to 6          | 3 to 7          |
| Confirmation Sampling and Hauling Offsite     | 6 to 10         | 7 to 11         |
| Backfilling and Grading, Site Stabilization   | 9 to 14         | 11 to 17        |
| Demobilization                                | 15              | 17 to 18        |
| <b>Overall</b>                                | <b>15 weeks</b> | <b>18 weeks</b> |

With stabilization, the Project sites would be ready for revegetation consistent with the VMP and GMPA. Revegetation of the sites would occur at the start of the rainy season, in November 2013, so as to improve plant survival success. The revegetation work (seeding and planting) would take approximately 3 weeks and is in addition to the 15 and 18 weeks noted above.

**Cumulative Impacts** CEQA requires consideration of the cumulative impacts of a proposed project in combination with impacts of other projects or activities that have the potential to combine with impacts of a proposed project. Although impacts of each project may be less than significant, the cumulative effect of all projects may be significant.

**America’s Cup:** Major sailing regattas are planned to take place on San Francisco Bay in the period between July 4 and September 23, 2013, with the America’s Cup Finals taking place in September. However, specific dates and times for all races are subject to change and the races will not occur every day. The greatest spectator attendance is expected on weekends, outside the normal work week. As with other major regional events, such as New Year’s Eve, 4th of July, and Fleet Week, roadways may become highly congested, particularly arteries and streets near the waterfront. For sailing events that took place in 2012, local transit agencies provided additional and extended service to waterfront viewing venues near the course. This also will be the case in 2013. Based on the overall race schedule and the Project construction schedules, the BBDA remediation work has the potential to overlap with the race events.

The BBDA 1A and BBDA 2 remediation schedule anticipates 2.5 weeks and 3.5 weeks of hauling material from the sites, respectively, in 2013. During this period, any necessary backfill would be delivered to the sites as well. If work begins in March 2013 as planned, hauling could be completed by May or June. If work begins in April 2013, hauling could be completed in June or July. Depending on when hauling occurs and how it is scheduled, it would be possible to avoid race-related periods of high traffic congestion. Contractors typically schedule hauling to make the most efficient use of drivers and trucks. Therefore, it is reasonable that a contractor would schedule around congested periods when trucks could be caught in traffic. In the event that material from both sites is hauled away in the same period, a maximum of 20 truck one-way trips (10 round trips) per hour would occur. This number of trucks is small compared to normal traffic volumes on U.S. Highway 101.

Given the uncertain racing schedule, the scheduling of the Cup Finals in September (when hauling would be over) and the fact that the hauling schedule can be adjusted or delayed to minimize its contribution to congestion, the Project is expected to have a less than significant contribution to traffic during race events. Therefore, the races are not considered in the cumulative analysis.

**Cumulative Scenario:** Known projects planned for 2013 that would occur on or near the Presidio may overlap with the Project’s schedule. These locations are shown on Figure 7. They include the ongoing Doyle Drive (Presidio

Parkway) replacement project, continuing Presidio Main Post Update projects, remedial dredging at Mountain Lake, and soil removal at the Barnard Avenue Protected Range (BAPR). With the exception of the ongoing Doyle Drive project, these projects are a considerable distance from the BBDA 1A and 2 sites.

The Doyle Drive project is a multi-year project involving replacement of the US 101 corridor through the Presidio. This corridor is the Project haul route through the Presidio to reach disposal sites to the south. Construction began in late 2009 and will be complete in 2015. Detours and road closures are required during the duration of the Doyle Drive work, and change from time to time as the work progresses. The Doyle Drive project Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) concluded that implementation of the Transportation Management Plan for that project would ensure that there are no significant transportation/traffic related impacts (FHWA & SFCTA, 2008). Although the BBDA 1A and 2 Project was not considered during the analysis of the Doyle Drive project, the number of truck trips and the period over which they would occur are minor as compared to the Doyle Drive project. They would not contribute to a worsening of traffic conditions below the Level of Service (LOS) attributable to the Doyle Drive work. LOS is used to describe delay at intersections due to traffic volume and other conditions. In 2011, the LOS at intersections on Lombard Street (US 101) during weekday peak hours was LOS C at Lombard St/Divisadero St and Lombard St/ Fillmore St and LOS D at Lombard St/ Van Ness Ave. (San Francisco Planning Department, 2011). These levels include any Doyle Drive related construction traffic. LOS C is described by traffic engineers as “acceptable delays”; LOS D as “tolerable delays”. It is assumed that the contribution of construction-related traffic from the Doyle Drive project would remain similar in 2013 to what it was in 2011.

Staging of trucks hauling excavated materials from Project sites would be accommodated within the individual staging areas and not on roadways. The only instance in which the BBDA 1A and BBDA 2 work could contribute to a cumulative effect is in its use of trucks and equipment during construction and when hauling material off site. These aspects of the project have the potential to contribute to a cumulative impact on traffic congestion and on air quality. All other potential impacts identified for the work at BBDA 1A and BBDA 2 are specific to the sites or the immediate vicinity. All impacts from the Project are short-term and associated with construction. There are no ongoing Project-related impacts once construction is finished. Consequently, the only resource topics for which cumulative impacts are considered in detail are Air Quality and Traffic/Transportation.

In addition to the larger projects noted, the NPS and Trust regularly undertake smaller projects and improvements across the Presidio. During 2013, these are expected to include projects in the general vicinity of the Baker Beach remediation Project; namely, improvements to the Bay Trail east of the Golden Gate Bridge, work at Battery East Parking and Vista Point, work on the Coastal Trail, and ongoing vegetation management and stewardship work along local trail corridors and in natural area zones. These would not generate substantial truck traffic and would not be long duration. Any unanticipated delays in the remediation Project schedule would be coordinated with the trail and stewardship work so these other projects are not adversely affected.

## ENVIRONMENTAL IMPACT ANALYSIS:

### 1. Aesthetics

#### Project Activities Likely to Create an Impact:

- Presence of equipment, fencing, and temporary stockpiles.
- Excavation and grading

#### Description of Baseline Environmental Conditions:

BBDA 1A and BBDA 2 are located along the Presidio’s western coastline in the portion of the Presidio administered by the National Park Service. The sites are situated on the bluff and slope overlooking the Pacific Ocean. At BBDA 1A, Golden Gate Bridge Highway and Transportation District (GGBHTD) administrative and maintenance facilities are to the north and east of the site, and Merchant Road is to the east. To the south is the previously remediated and recently restored BBDA 1 site. BBDA 1A includes Batteries Cranston and Marcus Miller at its eastern edge; the balance of the site is open space that slopes down to Baker Beach. BBDA 2 is immediately southeast of Battery Godfrey and approximately 750 feet south of BBDA 1A. BBDA 2 is accessed from the east by way of Langdon Court, which connects Lincoln Blvd to Dove Loop and a parking lot on the ocean side of Battery Godfrey. As with BBDA 1A, the BBDA 2 site is situated on the bluff above steep slopes leading down to the beach below.

The Coastal Trail, a popular hiking trail, runs along the top of the bluff and passes through the length of BBDA 1A. A number of non-maintained hiking trails also traverse the area. Under the GMPA (NPS, 2004); visitor access in the future would be confined to developed trails to protect rare and endangered species and to maintain the post-remediation

restored area in accordance with the VMP (NPS and Trust, 2001). At BBDA 2, the Coastal Trail is immediately east of the site, but does not traverse it. The Battery to Bluffs Trail is south of BBDA 2 and connects to the Coastal Trail.

Vegetation in the area of BBDA 1A is generally well developed except on the steeper cliff and beach areas, and consists of grasses and low shrubs. The site is vegetated primarily with non-native, invasive species. Vegetation at BBDA 2 is also well developed and includes grasses, shrubs, and trees.

The sites offer panoramic views to the west and northwest. The historic fortifications at each site are an important part of the historic fabric of the Presidio.

Scenic vistas from BBDA 1A and BBDA 2 are available to pedestrians using the trail through the sites or visitors at the batteries. The bridge and headlands are visible from BBDA 1A. Depending on weather conditions, the Farallon Islands may be visible 27 miles distant from both sites.

Analysis as to whether or not project activities would:

- a. Have a substantial adverse effect on a scenic vista.

Impact Analysis:

Potential effects on a scenic vista would occur during the short-term construction period for the Project and in the mid-term period after construction, while vegetation is being reestablished. Long-term visual effects on the scenic vista would be improved after the bluffs and disturbed areas are restored in accordance with the VMP (NPS and Trust, 2001).

During implementation of the remediation and restoration, temporary visual changes would occur within the sites including equipment use, removal of vegetation (primarily non-native, invasive species), stockpiling of debris and soil, and general worker activity. The construction activities would be spatially limited and temporary. Pre-construction and remediation activities at BBDA 1A would be performed over a period of approximately 15 weeks. At BBDA 2, work would occur for approximately 18 weeks. Restoration work following remediation would take approximately 3 weeks. These schedules limit the duration of aesthetic impacts from construction activities along the coastal bluffs. With completion of the remediation and subsequent restoration, the foreground of scenic views from the site would be enhanced. The background views would remain unchanged.

The most sensitive viewers of the site would be trail users and visitors to the batteries, both of which would be off-limits during construction. The trail through BBDA 1A would be closed temporarily and a detour provided; depending on final site layout for work areas, the trail may also be closed adjacent to BBDA 2. Visual effects (e.g., evidence of equipment use and activities, vegetation removal, the presence of a stockpile) would be temporary and relatively indiscernible from the Marin Headlands two miles to the north. Southbound motorists on the bridge and cyclists using the west walkway of the bridge would look directly at the BBDA 1A site as they descend toward the toll plaza. However, the site would be seen within of the larger context of the Presidio landscape and would be below the skyline.

The post-construction effects of Project would result in noticeable positive changes to the visual appearance of the site when viewed from nearby, most notably in the native vegetation to be established subsequent to remediation. Views from more distant locations would be nominally altered but would be largely unnoticed in the broader sweep of the landscape as seen from the Marin Headlands. In addition to potential additional vegetation removal, visitors to the immediate areas would notice re-grading of portions of the bluff and slope. With vegetation replanting, the foreground of the scenic views would be enhanced in accordance with the GMPA and VMP. Native plants would be restored, but would take a number of years to grow to maturity. Site visitors would be confined to the relocated trail, from which they would be able to observe the maturation of the vegetation over time.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.

Impact Analysis:

The proposed Project would not damage any scenic resources, including, but not limited to rock outcroppings, and historic buildings within a designated state scenic highway. Vegetation on site would have been cleared prior to excavation. Vegetation removal and restoration is consistent with the VMP. In addition, there are no known officially designated state scenic highways with views of the project area. Highway 1 over the Golden Gate Bridge is eligible for designation, but has not been so designated.

Although minor impacts may occur, they would be temporary in nature and in the long term, the scenic resources would be enhanced by the restoration of the sites. Because the proposed actions are expected to retain or improve existing visual qualities, and would not have a lasting visual effect, there would be a less than significant impact on scenic resources. Also, see 1.a, above.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Substantially degrade the existing visual character or quality of the site and its surroundings.

## Impact Analysis:

There would be short-term impacts that would degrade the existing visual character or quality of the sites and their immediate surroundings due to construction activities and the presence of needed equipment, fencing, and safety devices. These impacts would not be substantial because they are temporary in nature and limited in geographic extent. Restoration activities would improve the visual character and quality of the site and its surroundings. Impacts on the visual character and quality of the site would be less than significant.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

## Impact Analysis:

Construction activities would be performed during daylight hours. However, if night work is necessary, it would be performed in accordance with applicable or relevant and appropriate requirements (ARARs) detailed in the Project RAPs. During night work, the Project would produce light and glare from nighttime use of equipment and site lighting. During the day, glare may be visible as a reflection from glass and metal surfaces on equipment. However, light and glare would cause less than significant impacts because of the temporary and short-term duration of the Project and the nature of the effects. Because construction vehicles would be constantly moving, any glare that might occur from vehicles would be momentary and transitory for viewers.

At BBDA 1A, viewers traveling along Merchant Road are not expected to experience light and glare from the site because it would be screened from the road by existing vegetation, structures, and topography. Daytime glare may be visible to visitors on the Marin Headlands two miles away. However, the glare would appear relatively minor and insignificant. Views from the Golden Gate Bridge would not be subjected to significant adverse glare, because of the lower topographic position of the site relative to the bridge.

At BBDA 2, site work would be screened on the east by vegetation and existing structures and would not be visible from offsite. Because of its topographic location, the site would not be visible from the Golden Gate Bridge, but would be visible from portions of the Marin Headlands, similar to BBDA 1A.

Any light or glare would be transitory and temporary. The potential for people offsite to observe light or glare is very limited. As a result of the duration and limited nature of the effects, the Project would not produce new sources of light or glare that would adversely affect day or nighttime views; therefore it would have a less-than-significant impact.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September

3. \_\_\_\_\_, 2007. *Draft Remedial Action Plan: Baker Beach Disturbed Areas 1 and 2A & Twenty-Six Other Sites for the Presidio of San Francisco, California*. May.
4. NPS, 1993a. *National Register of Historic Places Registration Form for the Presidio of San Francisco*. March.
5. \_\_\_\_\_, 1993b. *National Historic Landmark District Update, The Presidio of San Francisco, San Francisco, California*.
6. \_\_\_\_\_, 1994. *Creating a Park for the 21st Century, from Military Post to National Park - Final General Management Plan Amendment, Presidio of San Francisco, Golden Gate National Park Recreation Area, California*. July.
7. NPS and Trust, 2003. *Presidio Trails and Bikeways Master Plan and Environmental Assessment*. July.
8. Royston, Hanamoto, Alley, and Abbey (RHAA), 2004. *Presidio Coastal Trail Master Plan*.
9. Trust and NPS, 2001. *Vegetation Management Plan and Environmental Assessment for the Presidio of San Francisco*. May.

## 2. Agricultural Resources

### Project Activities Likely to Create an Impact:

- None.

### Description of Baseline Environmental Conditions:

Neither farmlands nor areas zoned as forest land or timber land occur within the Presidio; therefore, there is no impact and this topic is not evaluated further for BBDA 1A and BBDA 2.

### Analysis as to whether or not project activities would:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

#### Impact Analysis:

##### Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Conflict with existing zoning or agriculture use, or Williamson Act contract.

#### Impact Analysis:

##### Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

#### Impact Analysis:

##### Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

### References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September
3. NPS, 1994. *Creating a Park for the 21st Century, from Military Post to National Park - Final General Management Plan Amendment, Presidio of San Francisco, Golden Gate National Park Recreation Area, California*. July.

4. Trust and NPS, 2001. *Vegetation Management Plan and Environmental Assessment for the Presidio of San Francisco*. May.

### 3. Air Quality

#### Project Activities Likely to Create an Impact:

- Use of heavy equipment, trucks, and other vehicles during vegetation removal,
- Excavation of contaminated soil and loading excavated soil onto dump trucks,
- Stockpiling and offsite transport of materials
- Site re-grading.

#### Description of Baseline Environmental Conditions:

The Presidio is in the nine-county San Francisco Bay Area air basin, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). Table 3-1 shows each of the ambient air quality standards and the attainment designation of the BAAQMD with respect to each standard. Air circulation in the vicinity of the site is excellent, as it is located in close proximity to air flow from San Francisco Bay and the Pacific Ocean.

The State CEQA Guidelines allow lead agencies, to rely on criteria recommended by the local air district in making determinations of significance for air quality impacts. The BAAQMD does not presently recommend thresholds as a generally applicable measure of significance.<sup>1</sup> However, in the past (2010) the BAAQMD developed and proposed thresholds of significance that are relevant to the Project.

Table 3-1. National and California Ambient Air Quality Standards

| Pollutant                            | Averaging Time   | California Standards  | State-Level Attainment Status | National Standards    | Federal Attainment Status |
|--------------------------------------|------------------|-----------------------|-------------------------------|-----------------------|---------------------------|
| Ozone                                | 1-hour           | 0.09 ppm              | Nonattainment                 | —                     |                           |
|                                      | 8-hour           | 0.070 ppm             | Nonattainment                 | 0.075 ppm             | Nonattainment             |
| Respirable Particulate Matter (PM10) | 24-hour          | 50 µg/m <sup>3</sup>  | Nonattainment                 | 150 µg/m <sup>3</sup> | Unclassified              |
|                                      | Annual Mean      | 20 µg/m <sup>3</sup>  | Nonattainment                 | —                     |                           |
| Fine Particulate Matter (PM2.5)      | 24-hour          | —                     |                               | 35 µg/m <sup>3</sup>  | Nonattainment             |
|                                      | Annual Mean      | 12 µg/m <sup>3</sup>  | Nonattainment                 | 15 µg/m <sup>3</sup>  | Attainment                |
| Carbon Monoxide (CO)                 | 1-hour           | 20 ppm                | Attainment                    | 35 ppm                | Attainment                |
|                                      | 8-hour           | 9.0 ppm               | Attainment                    | 9.0 ppm               | Attainment                |
| Nitrogen Dioxide (NO <sub>2</sub> )  | 1-hour           | 0.18 ppm              | Attainment                    | 0.100 ppm             | Unclassified              |
|                                      | Annual Mean      | 0.030 ppm             | Attainment                    | 0.053 ppm             | Attainment                |
| Sulfur Dioxide (SO <sub>2</sub> )    | 1-hour           | 0.25 ppm              | Attainment                    | 0.075 ppm             | Attainment                |
|                                      | 24-hour          | 0.04 ppm              | Attainment                    | 0.14 ppm              | Attainment                |
|                                      | Annual Mean      | —                     |                               | 0.03 ppm              | Attainment                |
| Lead                                 | 30-day Average   | 1.5 µg/m <sup>3</sup> | Unclassified                  | —                     |                           |
|                                      | Calendar Quarter | —                     |                               | 1.5 µg/m <sup>3</sup> | Attainment                |

Notes: ppm=parts per million; µg/m<sup>3</sup>= micrograms per cubic meter; "—"=no standard

Source: BAAQMD, 2012; [http://hank.baaqmd.gov/pln/air\\_quality/ambient\\_air\\_quality.htm](http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm).

The BAAQMD developed standard measures to reduce impacts to air quality resulting from construction activities (BAAQMD, 2012). For PM10 and PM2.5 related to construction fugitive dust, rather than achieve specific emissions thresholds, projects may avoid causing a dust impact if they include best management practices. The BAAQMD proposed thresholds for criteria air pollutant emissions (BAAQMD, 2010) indicate that a project during construction may cause a significant impact if it would:

- Emit more than 54 pounds per day (lb/day) of reactive organic gases (ROG);
- Emit more than 54 lb/day of nitrogen oxides (NO<sub>x</sub>);
- Emit more than 82 lb/day of PM10 from exhaust; or
- Emit more than 52 lb/day of PM2.5 from exhaust.

The BAAQMD proposed thresholds for community risk and hazards (BAAQMD, 2010) indicate that a project may cause a significant impact if the emissions create:

<sup>1</sup> The BAAQMD describes the status of its CEQA Guidelines at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>. The 2010 proposal can also be found here.

- Increased incremental cancer risk greater than 10.0 in a million;
- Increased non-cancer hazard greater than 1.0 Hazard Index for chronic or acute hazards;
- Incremental increase of annual average PM<sub>2.5</sub> concentration greater than 0.3 µg/m<sup>3</sup> from a single source.

In terms of air quality, sensitive receptors are located at facilities such as schools, hospitals, and nursing facilities. The closest receptor is the USF Presidio Building at 920 Mason Street, adjacent to Crissy Field. It is over 0.5 mile east of BBDA 1A and BBDA 2 and is an adult education facility.

The remediation sites are readily accessible from Highway 101 by way of entrance/exit ramps near the bridge toll plaza. Southbound traffic on Highway 101 would exit and enter at Merchant Road. Northbound U.S. Highway 101 traffic would exit and enter the Presidio by way of ramps connecting with Lincoln Blvd.

For BBDA 1A, off-site transport of 5,720 cy of excavated material would generate up to 318 truck round-trips per day during a 2.5 week period. This would average 10 trips per hour (5 outbound, 5 inbound). The number of personal vehicles from Project workers would be negligible compared to the existing traffic levels in the Presidio and nearby streets.

Material hauled from the sites is expected to go to Solano County or Kern County. The volume of material shipped to these landfill sites would depend on the final characterization of the material.

To reach the Potrero Hills landfill (for Class II and III material), trucks would enter southbound Highway 101 by way of Merchant Road near the Golden Gate Bridge toll plaza. Trucks would traverse San Francisco on Highway 101, which is coincident with Lombard Street and Van Ness Ave through the city. Once on the freeway again, the trucks would follow Interstate 80 east across the Bay Bridge to State Route 12 east, which leads to the Potrero Hills landfill. Class I material going to Kern County would use a similar local route, but would use Interstates 880, 680, and 5 once across the bridge. Empty trucks would reverse these routes. If an alternate landfill is identified to the north of the Presidio, trucks would proceed onto northbound Highway 101 via the on ramp at the east side of the toll plaza.

For BBDA 2, the estimated 8,710 cy to be hauled would require approximately 485 truck round trips over approximately 3.5 weeks. This would average 10 trips per hour (5 outbound, 5 inbound). As with BBDA 1A, the number of personal vehicles from Project workers would be negligible. For both sites, a small number of additional truck round trips would occur to deliver equipment, fencing, and other materials to the sites.

In addition, when the site is being rough contoured, approximately 11,600 cy of imported fill may be needed to stabilize areas and prepare the sites for restoration. This would require about 130 deliveries divided between the sites. It is assumed that these deliveries would occur after the excavated material has been hauled offsite, thereby providing space to stockpile the imported fill that would then be placed on the excavations.

For both sites, excavated material is expected to be hauled to either Potrero Hills Landfill, near Suisun City in Solano County, 61 miles distant, or Buttonwillow Landfill in Kern County, 266 miles distant.

Analysis as to whether or not project activities would:

- a. Conflict with or obstruct implementation of the applicable air quality plan.

#### Impact Analysis:

Measures to address potential air emissions and control dust and odors would be incorporated into the remediation construction designs, consistent with BAAQMD standards and requirements. Dust control measures would be implemented wherever the soil is exposed (e.g., exposed surfaces watered two times per day). Best Available Control Technologies (BACTs) would be adopted to maintain the site and operate equipment in a manner that would minimize air emissions. Typical BACTs include measures such as keeping equipment tuned and in good working order, limiting idling times to 5 minutes or less, using equipment that has lower emissions (e.g., off-road diesel equipment certified to achieve Tier 3 standards), providing gravel access ramps to paved roads, and not operating equipment at times that would exacerbate wind erosion. Over the course of activity, the average daily emissions caused by the construction and remediation would be minor and at a level that would be a fraction of proposed thresholds for construction-phase emissions (BAAQMD, 2010). The 2010 Proposed Thresholds are listed on the BAAQMD website; however, the newer 2012 CEQA guidelines do not generally specify use of the thresholds. Quantification of construction related emissions is no longer mandatory.

Samples collected at nearby previously remediated BBDA's contained soil and rock with naturally-occurring asbestos. Therefore, an asbestos dust management plan (ADMP) would be prepared and implemented. During the remedial actions, dust may be emitted from open excavations, soil stockpiles, and vehicles transporting excavated materials. There may be a temporary increase in asbestos dust when serpentine soil and bedrock are first exposed. The ADMP would be followed, and some BMPs that would be used onsite include tarp or plastic covering of stockpiled soils, covering of transported materials, and watering exposed areas if visible emissions occur.

Due to the limited spatial and temporal extent of the activities and the implementation of control measures into the construction and remediation design, the remediation Project would not conflict with or obstruct implementation of the applicable air quality plan. This impact would be less than significant.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis:

During the remedial actions, dust may be emitted from open excavations, soil stockpiles, and vehicles transporting excavated materials. There may be a temporary increase in naturally-occurring asbestos dust when serpentine soil and bedrock are first exposed. The ADMP would be followed to address asbestos, and BACTs would be used to reduce dust emissions, including watering all exposed surfaces as required, covering materials during transport, and minimizing construction equipment usage at all times, including shutting off idle equipment, as appropriate. The BAAQMD reports that these types of management practices are effective at reducing dust emissions to levels that would not be expected to violate or contribute substantially to an air quality violation (BAAQMD, 2010), and the resulting impact would be less than significant.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Analysis:

Excavation equipment and trucks would be used to implement the project, resulting in vehicular emissions from heavy equipment, trucks and other vehicles for the duration of activities at the sites. An estimated total of about 14,430 cy of material would be removed from the sites. It is anticipated that about 803 truck round trips would be required to haul material offsite. Approximately 5 empty trucks would enter and 5 full trucks leave each site per hour during hauling. This would result in approximately 40 round trips per day per site, or 80 round trips daily if the sites were hauling at the same time. This frequency of heavy duty truck loads would be limited to 2.5 weeks and 3.5 weeks for BBDA 1A and BBDA 2, respectively. Approximately 130 truckloads of fill may be imported to the Project sites. When this would occur has not been established, but is expected to be near the end of the landfill hauling or after that is completed.

This level of on-road traffic activity is nominal when compared to traffic on U.S. Highway 101 through the Presidio and nearby roadways. Thus, a detailed air quality analysis is not required and vehicular emissions would be considered less than significant. In addition, the proposed work is not expected to significantly impact ozone levels.

BBDA 1A and BBDA 2 remediation is scheduled for 2013. During this time, other unrelated construction projects also would occur in the area. These include the Doyle Drive replacement project on the north side of the Presidio near the remediation Project, the Presidio's Main Post upgrade project, and remediation work at Mountain Lake and the Barnard Avenue Protected Range (BAPR). These are shown in Figure 7.

- According to the Doyle Drive project EIS/EIR (FHWA & SFCTA, 2008), vehicles involved in Doyle Drive construction would include trucks hauling debris and delivering construction materials and supplies, commuter vehicles driven by construction workers, and vehicles used for construction such as graders and heavy earthmoving and paving equipment. Travel volumes would vary depending on the specific construction activity and schedule. Truck trips generated by the BBDA 1A and BBDA 2 Project would be a very small fraction of the daily traffic on Doyle Drive.
- Main Post upgrade project includes reconstruction of existing buildings, structural improvements and seismic work, roadway and utility upgrades, and other infrastructure enhancements. The Supplement to the Draft EIS for the Main Post update indicates that construction vehicle traffic would vary depending on the specific construction activity and schedule (Trust, 2009). Construction vehicles for the Main Post would generally enter the Presidio via Richardson Avenue (Gorgas or Lombard Gates) or the Golden Gate bridge toll plaza (Lincoln Blvd) (Trust, 2009).
- Mountain Lake remediation work would occur in approximately the same period as BBDA 1A and BBDA 2 work. The Mountain Lake site is over a mile south-southeast of BBDA 2. Trucks hauling dredged dewatered material

from the site would eventually be on Highway 101, entering either at Lincoln Blvd or at Lombard St, on the east side of the Presidio. The Mountain Lake project is estimated to generate approximately 25 truck round trips per day over a 4 to 8 week period. The timing of these would depend on the rate of dredging and dewatering (Kennedy/Jenks, 2012).

- The BAPR involves removal of 1,300 cy of contaminated soil by excavation. Work is expected to occur in early 2013 before BBDA 1A and BBDA 2 work. The BAPR is over one mile southeast of the sites. Trucks hauling soil material from the BAPR would eventually be on Highway 101, entering either at Lincoln Blvd or at Lombard St, on the east side of the Presidio. The BAPR project is estimated to generate only 100 total truck loads from the site over a 1 to 2 week period (Geosyntec, 2012).

A number of other smaller projects and improvements are planned for 2013 in the vicinity. These include trail improvements, an overlook, and vegetation management. None of these will require extensive off-site truck traffic and will not have long construction schedules. They are typical of activity that is ongoing on the Presidio from year to year and are not expected to contribute significantly to air quality or traffic impacts.

BBDA 1A and BBDA 2 remediation would occur in 2013 and would result in emissions from equipment and vehicles. Measures to address emissions and control dust and odors would be incorporated into the remedial designs as BACTs. Additionally, construction-related emissions of ozone precursors and other criteria pollutants would be short term and are included in the emissions inventory that is the basis for regional air quality plans. Based on these factors, the Project activities would not result in cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard (including emissions that exceed quantitative thresholds for ozone precursors).

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis:

There are no sensitive receptors within or adjacent to the Project sites. The Coastal Trail, a popular hiking trail, runs along the top of the bluff and passes through BBDA 1A and near BBDA 2. Prior to remedial activities, this section of the Coastal Trail would be closed and rerouted around work areas. Access to the work sites would be restricted. Dust control measures and an ADMP would be implemented to reduce potential air quality impacts to site workers and visitors to the Presidio to less than significant levels.

In addition, the work area perimeter would be monitored for dust. Additional monitoring may be performed in the work area and worker breathing zones, if specified in the site-specific Health and Safety Plan (HSP). Due to the temporary nature of impacts and the implementation of air quality BACTs, Project activities are not anticipated to expose sensitive receptors to substantial pollutant concentrations.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Create objectionable odors affecting a substantial number of people.

Impact Analysis:

The remedial actions at BBDA 1A and BBDA 2 are not expected to produce objectionable odors. Airborne particles that potentially carry odor would be minimized by dust abatement measures. Diesel vapors created by equipment onsite would be minimal and would not affect sensitive receptors due to the temporary nature of construction, the limited work area, and the limited number of daily truck trips necessary to transport equipment and material. All diesel equipment would use ultra-low sulfur diesel fuel as it is mandatory in California. Impacts related to odors would be less than significant.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## f. Result in human exposure to Naturally Occurring Asbestos (see also Geology and Soils, f.).

## Impact Analysis:

During site investigations, and previous remediation projects in the area, up to 10% chrysotile asbestos was quantified in serpentinite soil samples. Based on the presence of asbestos in serpentinite soils, an ADMP would be prepared and implemented for remedial activities at the two sites (CARB, 2001). In addition, asbestos-containing materials would be handled in accordance with a site-specific HSP that would be prepared prior to remedial activities. Because it is not anticipated that serpentine soils/rock will be excavated during the remedial action, they will not be subject to significant disturbance; this will limit the amount of asbestos dust generated at the sites. However, to mitigate potential exposures, the remediation contractor will visually monitor excavation activities daily for the generation of fugitive dust. If dust is being generated, the contractor will deploy BMPs to control fugitive dust emissions. If serpentinite soil is disturbed, significant exposure to asbestos fibers is not expected because previous asbestos exposure assessment for personnel conducting revegetation in serpentine soils containing asbestos (<1% to 10%) in the vicinity of the BBDA 1 and 2A sites, reported non detectable asbestos concentrations in 15 of 16 air samples (*Treadwell and Rollo, 2005*). Asbestos was reported in one sample at a concentration of 0.021 fibers per cubic centimeter (f/cc), which is well below the permissible exposure limit of 0.1 f/cc and short term exposure limit of 1.0 f/cc. If serpentinite is excavated or disturbed, air samples will be collected to assess the presence of asbestos fibers in fugitive dust. During previous removal actions at BBDA 1 and BBDA 2A, in an area that contains serpentine outcrops, dust emissions were monitored in consultation with the BAAQMD and no significant levels of asbestos were detected. If serpentinite rock is excavated it will be stockpiled separately for separate profiling and disposal.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September
3. BAAQMD (Bay Area Air Quality Management District), 2012. *California Environmental Quality Act, Air Quality Guidelines*. May.
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5. CARB (State of California Air Resource Board), 2001. *Resolution 01-28*. July.
6. DTSC (Department of Toxic Substances Control), 2008. *Initial Study-Remedial Action Plan – Baker Beach Disturbed Areas 1 and 2A, and 26 other Sites, Presidio of San Francisco*. June
7. FHWA (Federal Highway Administration) and SFCTA (San Francisco County Transportation Authority), 2008. *Final Environmental Impact Statement/Report and Section r(f) Evaluation, South Access to the Golden Gate Bridge: Doyle Drive*. September.
8. Geosyntec, 2012. *Draft Removal Action Work Plan, Barnard Avenue Protected Range, Presidio of San Francisco*. In preparation.
9. Kennedy/Jenks Consultants, 2012. *Final Feasibility Study/Remedial Action Plan, Mountain Lake, Presidio of San Francisco, California*. May.

#### 4. Biological Resources

## Project Activities Likely to Create an Impact:

- Removal of vegetation
- Physical disturbance to natural communities
- Excavation of debris
- Site grading

## Description of Baseline Environmental Conditions:

BBDA 1A and BBDA 2 are open space natural areas located on the coastal bluffs overlooking the Pacific Ocean. The vegetation on the sites largely consists of invasive, non-native plants, which would be removed prior to excavation and

debris removal. The predominant vegetation is grass and shrubs. Site BBDA 1A has very few trees; a number of cypress trees are within BBDA 2 remedial limits. The most recent rare plant survey was conducted in 2011.

Table 4-1 lists special-status species protected under the Federal or California Endangered Species Act that have been recorded as casual visitors to the Presidio and vicinity, or have been identified at various locations at the Presidio. The table also shows whether the species have been documented at BBDA 1A or BBDA 2 in wildlife inventories.

| Species                         | Status* | Documented at BBDA 1A or BBDA 2A in Inventories?                                 |
|---------------------------------|---------|--|
| Marbled murrelet (bird)         | FT, CE  | No   |
| Snowy plover (bird)             | FT      | No   |
| Bald eagle (bird)               | CE      | No   |
| Willow flycatcher (bird)        | CE      | No   |
| Raven's Manzanita (plant)       | FE, CE  | No; BBDA 1A in recovery area   |
| Presidio clarkia (plant)        | FE, CE  | Observed proximate to the BBDA 1A and 2 remedial areas; BBDA 1A in recovery area |
| Marin dwarf flax (plant)        | FT, CT  | No; BBDA 1A in recovery area   |
| San Francisco lessingia (plant) | FE, CE  | No   |
| Franciscan manzanita (plant)    | FE      | No; BBDA 1A and 2 are within proposed critical habitat                           |

\*FE – Federally endangered; FT – Federally threatened; CE – California endangered; CT – California threatened

Sources: BBDA 1A and 2 RAP ARARs tables (MACTEC 2012a, 2012b), California Natural Diversity Database (CNDDB) search (DTSC, 2011).

On July 23, 2002, the U.S. Fish and Wildlife Service (USFWS) issued a Formal Consultation for four projects at the Presidio (which included the various BBDA remediation sites) to analyze impacts to the special status species and associated recovery unit plans within the remedial areas. The resulting 2002 Biological Opinion (BO) contained the USFWS determination that the remedial activities at the BBDA are unlikely to jeopardize the continued existence of listed species or critical habitat, provided such activities are conducted in compliance with Applicable, Relevant and Appropriate Requirements (ARARs) listed in the RAP.

On September 5, 2012, the U.S. Fish and Wildlife Service published a final rule listing Franciscan manzanita (*Arctostaphylos franciscana*) as endangered and announced a proposal to designate over 300 acres in San Francisco as critical habitat, including the Baker Beach bluffs. All of BBDA 2 and most of BBDA 1A fall within the area proposed for designation as critical habitat. In accordance with section 7(a)(4) of the Endangered Species Act, federal agencies will confer with U.S. Fish and Wildlife Service on any agency action at this site which is likely to jeopardize the continued existence of any species proposed to be listed or result in the destruction or adverse modification of critical habitat proposed to be designated. The proposed remediation Project will remove debris fill and help to restore historic soil conditions that could support the Franciscan manzanita and other native plants. As such, the proposed critical habitat will benefit from the cleanup of the sites and will continue to serve its intended conservation role for the species.

In addition to the listed species identified above, four rare plant species are known to occur in the vicinity based on the 2011 rare plant survey. These are:

- San Francisco wallflower (*Erysium franciscanum*), (Federal Species of Concern; California Native Plant Society (CNPS) California Rare Plant Rank 4.2 [limited distribution/fairly threatened in California]); Note: In spring 2011, CNPS changed the name "CNPS List" to "California Rare Plant Rank" The definitions of ranks and the ranking system have not changed. (<http://www.cnps.org/cnps/rareplants/ranking.php>)
- Coast rockcress (*Arabis blepharophylla*), (Federal Species of Local Concern; CNPS California Rare Plant Rank 4.3 [limited distribution/not very threatened in California]);
- San Francisco gumplant (*Grindelia hirsutula* var. *maritima*), (Federal Species of Concern; CNPS California Rare Plant Rank 3.2 [plants about which we need more information – a review list/fairly threatened in California]; and
- Franciscan thistle (*Cirsium andrewsii*), (Federal Specials of Concern; CNPS California Rare Plant Rank 1B.2 [rare, threatened, or endangered in California but more common elsewhere/fairly threatened in California]).

Following excavation activities, the sites would be protected to prevent erosion and soil loss until the sites are restored. Site restoration would be conducted in areas disturbed by the Project to stabilize the sites. This restoration would facilitate habitat and recreational development under the GMPA (NPS, 1994) and VMP (NPS and Trust, 2001). Native plant species would be planted and the trail through the area reestablished. The plantings would be compatible with the cultural fabric of the sites, but would not reestablish prehistoric conditions. At BBDA 1A, the trail would not necessarily be at its current location and likely would be located further east. Post-remediation site restoration would not restore the pre-Endicott Period battery natural site conditions. Rather, the Endicott Period battery earthworks would be restored using soils and plants compatible with the culturally significant historic fabric of the area.

Analysis as to whether or not project activities would:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis:

Several rare and special status plant species occur in the Project vicinity. While rare plant individuals are known to occur within and proximate to the remediation sites, it is not expected that the remedial activities would impact plant populations. If they are impacted, they would be restored as part of the site re-vegetation plan. The Presidio's 2002 Biological Opinion (BO) contained the USFWS determination that the remedial activities at the BBDAs are unlikely to jeopardize the continued existence of listed species or critical habitat, provided such activities are conducted in compliance with ARARs listed in the RAPs.

Vegetation removal would be coordinated with NPS natural resource staff to avoid potential disruption to nesting or migrating birds. Specifically, vegetation removal would be scheduled to occur outside of bird nesting season (January 1st - August 15th for raptors and hummingbirds; March 1 - August 15th for songbirds), as dictated by the GMPA and NPS policies, and in compliance with the Migratory Bird Treaty Act. If tree removal work were required between January and March, raptor nesting surveys would be performed prior to the start of work. Vegetation removal can occur during bird nesting season provided a nesting survey indicates no disruption to nesting birds (including ground nesting birds) and approval is obtained from NPS natural resource staff. Based on the implementation of the project schedules and safeguards, songbirds, ground nesting birds, and other migratory birds would not be disturbed during their nesting season.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis:

By removing non-native plant populations and by providing soil conditions conducive to native plant restoration, remedial activities would provide a net benefit for ecological restoration of these areas. Herbicides may be used in conformance with current pest and vegetation management practices at the Presidio. Subsequent to remediation, the sites would be restored and revegetated with native species and, possibly, selected landscape plants. Therefore, Project activities would not substantially affect any sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS. There is no riparian habitat on or near the sites.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis:

There are no wetlands known to be present on the remedial sites. Based on preliminary observations during a July 2011 site visit, a small area between Magazines 28 and 29, located outside the remediation area at BBDA 2, may meet USACE criteria for wetlands (e.g., evidence of water inundation, presence of plants that evolved to grow in wet areas, and soils that show evidence of water saturation). This area will not be affected by BBDA 2 remediation. In addition, since construction at the sites would be conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), no permits would be required from the USACE (EPA OSWER Directive 9355.7-03).

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact Analysis:

Federal and state-listed bird species have been known to migrate throughout the Presidio. As stated in Section 4.a., vegetation removal would be scheduled to occur outside of bird nesting season. Vegetation removal can occur during bird nesting season provided a nesting survey indicates no disruption to nesting birds (including ground nesting birds) and approval is obtained from NPS natural resource staff. Based on the implementation of this schedule and safeguards, songbirds, ground nesting birds, and other migratory birds would not be disturbed during their nesting season. Therefore, no substantial interference is anticipated to occur as a result of the project activities and potential impacts to bird species are considered less than significant.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis:

The remedial action would not conflict with provisions of any local policies or ordinances regarding biological resources at the Presidio. All vegetation removal activities would occur in compliance with the VMP objectives; therefore, there is no impact and no further analysis is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis:

The remedial action plan would consistent with the VMP, USFWS BO, and the GMPA. The remedial action would not conflict with provisions of any adopted plan regarding biological resources at the Presidio. There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that covers this area. There is no impact and no further analysis is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

References Used:

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11. USFWS, 2002. *Formal Consultation on Four Projects at the Presidio of San Francisco and Golden Gate National Recreation Area, San Francisco, California*. File No. 1-1-02-F-0228. July 23.
12. \_\_\_\_\_, 2005. *Amendment to the Biological Opinion for the Modification of Three Environmental Remediation Sites, and the Presidio Trails and Bikeways Management Plan, The Presidio, San Francisco, California (USFWS file 1-1-02-F-0228)*. August 31.

## 5. Cultural Resources

### Project Activities Likely to Create an Impact:

- Removal of existing vegetation
- Excavation, transportation of excavated material
- Re-grading

### Description of Baseline Environmental Conditions:

BBDA 1A and BBDA 2 are located within the boundaries of the Presidio of San Francisco National Historic Landmark District (NHL), managed by both the NPS and the Presidio Trust. The sites are adjacent to, and historically associated with, the Fort Point Historic Monument and the Golden Gate Bridge National Historic Landmark.

A cultural resource investigation (CRI) was conducted in 2005 to provide a description of the physical and cultural setting and a comprehensive assessment of cultural resources at the BBDA sites. The CRI included historical research, and trenching and mapping in the vicinity of identified cultural resources. Following implementation of the CRI, URS Corporation, NPS personnel, and John Martini jointly prepared a *Cultural Resources Baseline and Impact Assessment for the Baker Beach Disturbed Areas (BBDA) 1, 1A, 2, and 2A Remedial Action*. This document was presented as Appendix B of MACTEC, 2006 and provided specific information regarding cultural resources present at the BBDA sites, an impact assessment, and treatment recommendations to protect cultural resources during remediation.

Beginning at the Golden Gate Bridge and extending southward along the bluff are five seacoast defense batteries. Two of these are within the BBDA 1A site, at its eastern edge. These are Battery Cranston and Battery Marcus Miller, which were constructed in 1897-1898. Battery Cranston was named in honor of Lieutenant Arthur Cranston, who was killed in 1873 during the Modoc Indian War in northeastern California. Battery Cranston's guns were removed in 1943 as obsolete. Today the Golden Gate Bridge, Highway and Transportation District (GGBHTD) uses Battery Cranston as a storage area, which is fenced off from public access. For many years, Battery Marcus Miller was called Battery Cranston 2. In 1907, the three emplacements of Cranston 2 were designated as a separate battery and named in honor of Brigadier General Marcus Miller, a West Point graduate who was a veteran of the Civil War and the Modoc and Nez Perce Indian Wars and who served as Commander of the Presidio. A succession of construction activities established and expanded facilities at this location. These included gun emplacements, earthworks, concrete emplacements, buildings, and other structures. This battery was regarded as obsolete and its guns were removed in 1918 (Chapell, 2011a and 2011b). BBDA 1A includes historic earthworks associated with the two batteries. Given the substantial landform modifications resulting from the construction of the batteries, it is unlikely that there is any surviving evidence of prehistoric activities within the area.

Historic Battery Godfrey is immediately north of the BBDA 2 site. The battery was completed in 1895 and was named in honor of Captain George J. Godfrey, who was killed in action in the Philippine Islands in 1899. The three 12-inch guns mounted at the battery were salvaged in 1943, along with 12 others considered obsolete. Magazines 28 and 29, which are remnants of the 1870s-era West Battery fortification, are located at the western limits of BBDA 2. Magazines 28 and 29 are enveloped by protective earthen mounds covered with non-native vegetation.

Behind the line of gun pits and traverse magazines was a road that was originally constructed in the early 1870s to serve gun emplacements at West Battery and is referred to as a "Covered Way," based on the assumption that it was constructed with high sides to protect it from enemy fire. However, the road was not originally constructed as a feature below the surrounding ground level. When it was originally built, the road was at approximately the same elevation as the surrounding landscape.

Based on review of historical photographs and maps, a secondary road, later named Dove Court, made a circular loop in the vicinity of BBDA 2. A secondary access road is also evident west of Magazine 28 and 29 earthworks in a 1961 photograph of the site. This photograph also shows a graded area north of BBDA 2 in the current location of the Battery Godfrey parking area (Martini, 2009).

As a federal agency, the NPS is required to comply with the National Historic Preservation Act (NHPA). The Programmatic Agreement for the Presidio among the NPS, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP), dated August 31, 1994, states that the Presidio of San Francisco shall manage and preserve its historic properties consistent with good historic preservation management and stewardship and sets forth the procedures to implement the historic compliance process of Section 106 of the NHPA. Key to that process is identification of historic resources that may be affected by an action. As the PA recognizes, numerous surveys and evaluations have been conducted to identify National Register eligible and NHLD contributing properties for the entire Presidio landmark district.

Native people today referred to as Ohlone/Costanoans were the earliest human inhabitants of the area now known as the Presidio. On December 12, 2011, the Native American Heritage Commission (NAHC) provided to DTSC the results of the Sacred Land file search for the San Francisco Presidio project area. The NAHC did not locate resources in the Sacred Land file; however, the NAHC provided a list of Native American contacts who may have an interest in the project. The tribal contacts would receive the Initial Study and Negative Declaration for review during the public comment period for this Project.

Analysis as to whether or not project activities would:

- a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.

#### Impact Analysis:

At BBDA 1A, contractor staging and loading areas would be located east of the site, in or adjacent to the Merchant Road parking lot. The batteries and earthworks are historical resources. The contaminated soil in the earthworks would be removed along with asphalt debris on the earthworks. This would remove the historic fabric of the earthworks (soil), which would be replaced with a similar material and the historic earthworks reestablished. Monitoring by cultural resources staff would be required during soil removal to minimize damage to the earthworks where soil is not being removed. Post-remediation measures would include reconfiguring of the ground surface in a manner that conforms to the historic earthwork surfaces.

The work area for the remediation effort at BBDA 1A would comprise the area around the contaminated soil and debris and the equipment staging and stockpile areas at the Merchant Road parking lot east of the site. Cliff-side soil and debris excavation at BBDA 1A would be based on final site conditions and the engineering design and may include use of specialty construction equipment such as small bulldozers and walking excavators ("spyder excavators"). A temporary bridge would be built between the parking lot and the site to allow for the movement of equipment and material between the site and the staging area. A loader would transfer the soil and debris stockpile in the staging area into trucks.

At BBDA 2, the remediation excavation would not disturb any historic features, including earthworks. As with BBDA 1A, work at BBDA 2 would be based on site conditions and excavation equipment would be selected appropriate to conditions. Excavated material would be stockpiled either in the parking lot in front of Battery Godfrey or in the parking area south of Langdon Court.

If human skeletal remains are encountered, protocols under federal law would apply. All work would stop in the vicinity of the discovery, and the find would be secured and protected in place. The San Francisco County coroner and Trust and NPS cultural resource specialists would be immediately notified. If a determination finds that the remains are Native American, and that no further coroner investigation of the cause of death is required, the coroner would contact the NAHC (pursuant to Section 7050.5[c] of the California Health and Safety Code) and the County Coordinator of Indian Affairs for informational purposes only. Disposition of the human remains would be treated in accordance with the Native American Graves Protection and Repatriation Regulations at 43 CFR 10.4 (Inadvertent discoveries).

The remedial activities proposed at BBDA 1A and BBDA 2 would not produce substantial adverse changes to historical resources. The historic battery earthworks would be reestablished with similar soil material as was used in the construction of the earthworks. The work would be conducted in accordance with the regulations governing cultural resources, including the National Historic Preservation Act, the Archaeological Resources Protection Act, the Archaeological and Historic Preservation Act, and the Native American Graves Protection and Repatriation Act, and is not expected to cause a substantial adverse change in the significance of a historical resource. Trained archaeologists would monitor the remediation and reconfiguration activities to ensure that the expected subsurface condition is consistent with the profiles known to exist previously and that no damage occurs to unknown resources.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.

## Impact Analysis:

Based on the extent of archaeological resources identified at the Presidio in the National Register of Historic Places document, the proposed remediation would not produce substantial adverse changes to archaeological resources. The measures discussed above in Section 5a would be implemented to reduce the impact of the remediation Project to less-than-significant.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

## Impact Analysis:

Based on the extent of paleontological resources identified at the Presidio in the National Register of Historic Places document, it is highly unlikely that the remedial action would encounter a unique paleontological resource or site or a unique geologic feature. The measures discussed above in Section 5a would be implemented to reduce the impact of the Project on unique paleontological resources to less-than-significant.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Disturb any human remains, including those interred outside of formal cemeteries.

## Impact Analysis:

Based on the extent of human remains identified at the Presidio in the NPS National Register of Historic Places document, it is highly unlikely that the project would disturb any human remains, including those interred outside of formal cemeteries. Although there is a very low risk of encountering human remains at this site, if human skeletal remains are encountered, protocols under federal law would apply. All work would stop in the vicinity of the discovery, and the find would be secured and protected in place. The San Francisco County coroner and Trust and NPS archaeologists would be notified immediately. If a determination finds that the remains are Native American, and that no further coroner investigation of the cause of death is required, the coroner would contact the NAHC (pursuant to Section 7050.5[c] of the California Health and Safety Code) and the County Coordinator of Indian Affairs for informational purposes only. Disposition of the human remains would be treated in accordance with the Native American Graves Protection and Repatriation Regulations at 43 CFR 10.4 (Inadvertent discoveries).

Because of the limited potential to encounter human remains or associated artifacts, and the degree of oversight being provided at these sites, it is unlikely that the proposed Project would disturb any human remains, including those interred outside of formal cemeteries.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## References Used:

- AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
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## 6. Geology and Soils

### Project Activities Likely to Create an Impact:

- Removal of existing vegetation
- Excavation of debris
- Re-grading

### Description of Baseline Environmental Conditions:

The Presidio is located in the San Francisco Bay area, a region with a high degree of tectonic activity. Major faults within a 25-mile radius of the Presidio include the San Andreas Fault, the Hayward Fault, and the Calaveras Fault. The BBDA 1A site is in part located on a steep slope that extends from the top of the bluff to the beach. Surface drainage is to the west, toward the Pacific Ocean.

Soil and rock units present at the site consist of soil used in construction of the earthworks. These earthworks locally overlie native Colma formation and/or serpentinite bedrock. Serpentinite bedrock is present on the bluff slopes west of the site (AMEC 2012). The Presidio bedrock consists of altered volcanic rocks, basalt, chert and sandstone, which originated as ancient sea floor sediments. These can best be seen as outcrops along the irregular, eroded coastal bluffs. Serpentinite, with its green color and soft, slippery appearance, along with associated soils and habitat, is a sensitive natural feature of the Presidio. Serpentine soils can be found along the northern and western coastal bluffs of the Presidio.

Site elevations at BBDA 1A range from 150 feet MSL on the western edge of the site, where the slope steepens, to 205 feet MSL adjacent to the batteries. Surface deposits in the vicinity of BBDA 1A vary from sediments of the Franciscan Complex that are overlain by landslide deposits in the northern portion of the area, to predominantly Quaternary dune sand south of the site. Exposures of the Franciscan Complex in the area consist primarily of Cretaceous serpentinite and minor amounts of Jurassic to Cretaceous sandstones, shales, and cherts. The overlying landslide deposits are of Quaternary age and generally consist of unstratified mixtures of bedrock fragments, sand, silt and clay. The surface soil on the site itself is part of the earthworks in front of the batteries. Debris on the site consists predominantly of fragments of asphalt, brick, and tar in a matrix of silt with sand or sandy silt (DTSC, 2008).

Site elevations at BBDA 2 range from approximately 260 feet MSL at the Coastal Trail to 220 feet MSL on the western edge of the site. Surface drainage is to the west toward the Pacific Ocean. Soil and rock units present at the site consist of fill, Colma formation, and serpentinite residual soil and bedrock. Landslide material has also been identified in test pits and mapped in the site vicinity. Groundwater and surface water have not been encountered during investigation activities at the site. Debris fill at BBDA 2 extends to depths ranging from 2 to 12.5 feet bgs. Debris fill observed in the test pits and cultural resources trenches at BBDA 2 is generally composed of coarse and fine grained soils including sandy silt, sandy clay, silty sand, sandy gravel, and clayey gravel. Construction debris (asphalt, bricks, cobbles, concrete, ceramics, waste rock [including chert and slate]), landscape debris (pockets of tree-trimmings), and refuse (automotive parts, tire, cans, bottles, chain-link fence, fence posts, wire, sheet metal, piping, wood, plastic, paper, and glass) are present in the debris fill. Fill without debris (generally underlies, but at some locations overlies), debris fill and includes historic fill that was part of construction of the batteries and the access road east of the batteries. This fill material consists of sandy silt, sand, silty sand, clay, sandy clay, sandy gravel, and clayey gravel and does not contain refuse material. The gravel generally comprises crushed or broken serpentinite, chert, and shale rock fragments.

## Analysis as to whether or not project activities would:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42).
  - Strong seismic ground shaking.
  - Seismic-related ground failure, including liquefaction.
  - Landslides.

## Impact Analysis:

The proposed remedial action would be limited in scope and of relative short duration so that the geologic/seismic hazard at the sites or exposure of people and/or structures to adverse impacts related to geologic and seismic hazards would be less than significant. There has been no reported historic activity on a potential fault located near BBDA 1A or BBDA 2.

No known active faults cross through the project sites (*Hart, 1999*). Fault ground rupture is normally associated with zones of active faulting and/or planes of weakness adjacent to active fault zones. The closest active fault is the offshore section of the San Andreas Fault, located 12.1 km (7.6 miles) to the west. Because recognized active faults neither cross through, nor are adjacent to the site, the fault rupture hazard at the site is considered to be negligible.

The geological and seismic environments are not anticipated to expose people or structures to significant strong seismic ground shaking. The excavation activities at the sites would be of relatively short duration, limited in nature, and involve few workers. Therefore, the proposed activities are unlikely to be affected by the geological and seismic conditions, including potential seismic ground shaking.

Liquefaction is the phenomenon in which loose, saturated, granular materials experience a sudden loss of shear strength due to seismic shaking. Soil liquefaction can induce sand boils, differential settlement, lateral spread, and ground failure. The Susceptibility Map of the San Francisco Bay Area shows the Project area to have a Low potential for liquefaction (USGS, 2005).

Bluff top areas underlain by shallow bedrock are not susceptible to liquefaction or settlement, and associated differential settlement and lateral spread within the area of existing batteries and other structures is considered very low. Although the lower beach cliffs are relatively steep, these are composed primarily of Franciscan mélange, or sandstone and shale bedrock, and therefore not considered susceptible to liquefaction and lateral spreading.

Liquefaction could occur at the Project sites under conditions where seeps are observed. This condition can be controlled by dewatering the fill area prior to and during excavation, if necessary. Based on the shallowness of the soil, this is not expected to present a problem.

Pervasively weak bedrock materials, steep slopes, exposure to rainfall, and undercutting by wave action have all contributed to the inherent instability of slope materials. Less common causes of landslide in the general area are adverse bedding, localized discharge of surface runoff, and dumping of waste. Since the 1960s, the growth of vegetation appears to have provided some stabilization of the slopes.

Soil and bedrock materials in the Baker Beach bluff area are susceptible to erosion, downslope movements, and landslides as a result of natural processes. It would be expected that natural processes would periodically move rock and saturated soil from the bluff top and slope face onto the beach. The hard, more competent serpentinite cliffs occasionally shed variable size rock fragments due to jointing in the intact rock. These landslides are indicative of the overall slope instability in the area. The risks of additional movement of materials down the slope are greatest during winter rains and during earthquakes.

Excavation plans and post-construction grading plans would be reviewed by a geotechnical engineer and a geotechnical engineer and/or engineering geologist would be on call and inspect the site periodically during excavation and during post-excavation grading work. Also, excavations requiring soil and debris removal would be designed so they do not significantly increase the risk of slope instability that could affect significant resources (earthworks and batteries). Stabilization measures may include dewatering of areas to be excavated, if needed, locating temporary stockpiles and equipment staging areas at least 10 feet back from the slope face, sequencing the soil and debris removal from the top of slope to the bottom of the slope, selecting temporary fill and cut slope inclinations that are stable in the short term, and selecting finished slope inclinations that are at least as stable as the current natural bluff slopes.

City and County of San Francisco excavation permits are not required because the excavation work is taking place on Federal property. After site excavation is complete, the site would be graded to reestablish the earthworks. The remedial design would include provisions for restoring slope stability and safety to natural conditions. In accordance

with the erosion control plan in the remedial design, erosion control measures would be implemented as necessary. Examples of stabilization measures might include: installation of wattles, stabilization matting, fabric, and blankets on newly exposed soil and after work is completed on short, steep, and/or sparsely vegetated slopes.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

b. Result in substantial soil erosion or the loss of topsoil.

Impact Analysis:

Erosion control measures would be implemented to minimize runoff from the sites in substantial compliance with the California General Construction Permit. In land disturbed by equipment, erosion control measures would be implemented during and after construction. Project control measures include stabilization practices such as wattles, silt fences, berms, and temporary outlet protection. The method chosen would depend on the planned activities and erosion potential of the area in question. By implementing the prescribed erosion and stabilization measures, the potential for substantial soil erosion or the loss of topsoil is considered less than significant.

Project control measures include:

- *Exposed cut and fill slopes:* Stabilization practices such as wattles, silt fences, berms, and temporary outlet protection may be employed, if needed. The method chosen would depend on the planned activities and erosion potential of the area in question.
- *Excavated soil:* Areas where soil has been excavated may be graded such that storm water runoff would be minimized from the area until the exposed soils are removed.
- *Wet season construction:* Downslope work would not be scheduled during the wet season to the extent practicable.

The final shape and appearance of the slopes would be addressed in the final remedial design. Activities would be closely supervised to ensure that excavation and removal of native soil and bedrock would be minimized or eliminated to preserve in-place serpentinite bedrock and serpentinite-derived residual and colluvial soils to the greatest extent practicable. After the site is re-graded, the slopes in the remediated area may experience localized erosion and dislodgement, particularly during heavy rains. These movements of surface soils are consistent with natural processes found in coastal bluff environments at the Presidio and are characteristic of the Pacific coastline.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Impact Analysis:

Soil and bedrock materials in the Baker Beach bluff areas are susceptible to erosion, downslope movements, and landslides as a result of natural processes. Based on slope stability analysis performed as part of a geotechnical evaluation for multiple remediation projects in the Baker Beach bluff area (MACTEC, 2006), the removal of the soil is feasible, provided that geotechnical recommendations are incorporated into the remedial design. It is noted that the evaluation for BBDA 1A presented in MACTEC 2006 was based on a much smaller area of soil and debris removal (200 to 400 cy) than is currently planned.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Analysis:

Although there are weathered (soil-like) portions of the serpentinite within the project area that could be considered expansive, in general the rock is quite strong and is not considered an expansive soil that could create substantial risk to life or property. Project activities would not place structures on expansive soils. Therefore the remedial activities would not create any risk to life or property as a result of being located on expansive soils.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of water.

Impact Analysis:

The Project would not involve the installation of septic tanks or alternative wastewater disposal systems. Portable toilets would be used during construction. There is no impact and no further analysis is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- f. Be located in an area containing naturally occurring asbestos (see also Air Quality, f.).

Impact Analysis:

Serpentinite bedrock in the Presidio is known to contain asbestos in some areas. An ADMP would be prepared for remedial activities at BBDA 1A and BBDA 2 prior to implementation of remedial actions at the sites. Asbestos materials would be handled in accordance with the site-specific HSP and associated Asbestos Dust Mitigation Plan and all applicable laws and regulations as described in Section 3 above.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

References Used:

- AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
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## 7. Greenhouse Gas Emissions

### Project Activities Likely to Create an Impact:

- Emissions from use of heavy equipment, trucks, and other vehicles.

### Description of Baseline Environmental Conditions:

The setting for climate change and the analysis of greenhouse gas (GHG) emissions is defined by world-wide emissions and their global effects. The baseline conditions include the natural and anthropogenic drivers of global climate change, such as world-wide GHG emissions from human activities that have grown more than 70 percent between 1970 and 2004 (IPCC, 2007). The State of California is leading the nation in managing GHG emissions. Accordingly, the impact analysis relies on guidelines, analyses, policy, and plans for reducing GHG emissions established by the California Air Resources Board (CARB). This is a cumulative impact assessment because, by their nature, any GHG emissions contribute to the adverse environmental impacts of global climate change on a cumulative basis.

Globally, temperatures, precipitation, sea levels, ocean currents, wind patterns, and storm activity are all affected by the presence of GHGs. The global climate depends on the presence of GHGs to naturally provide the “greenhouse effect.” The greenhouse effect is driven mainly by water vapor, aerosols, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and other GHGs that trap heat radiated from the Earth's surface. The global surface temperature would be about 34°C (61°F) colder than it is now if it were not for the natural heat trapping effect of natural climate change pollutants (CAT, 2006).

California currently emits approximately 500 million metric tonnes of CO<sub>2</sub> equivalent (500 MMTCO<sub>2</sub>e) each year, or between one and two percent of about 49,000 MMTCO<sub>2</sub>e emitted globally (CARB, 2007). The California Global Warming Solutions Act of 2006, Assembly Bill 32 (AB 32), requires that California's GHG emissions be reduced to 1990 levels by 2020. The reduction would be accomplished through an enforceable statewide cap on global warming emissions covering major industrial facilities beginning with 2013 emissions. AB 32 directs the CARB to develop regulations and a mandatory reporting system to track and monitor global warming emissions levels (AB 32, Chapter 488, Statutes of 2006). The CARB Climate Change Scoping Plan, approved December 2008, provides the framework for achieving California's goals.

In passing AB 32, the California Legislature found that:

*“Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.”*

The regulations implementing AB 32 are being developed in phases. Implementation of the AB 32 Climate Change Scoping Plan requires careful coordination of the State's energy and transportation policies. The Scoping Plan provides strong support for reducing emissions from all manners of vehicle and air travel, because travel is a large portion of California GHG emissions.

Determining significance of GHG emissions relies upon available guidelines from State or local air quality management agencies, where available. The effects of Project-related direct and indirect GHG emissions are characterized against a GHG emissions level of 10,000 metric tonnes per year (10,000 MTCO<sub>2</sub>e/yr) developed as a proposed threshold for stationary sources, with construction activities not being subject to any quantitative threshold (BAAQMD, 2010). At a level of less than 10,000 MTCO<sub>2</sub>e/yr, an industrial project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. Global climate change is a cumulative impact that would be affected by GHG emissions. However, relatively small scale projects, if found to be less than significant, would not be anticipated to result in cumulatively considerable GHG emissions.

## Analysis as to whether or not project activities would:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

## Impact Analysis:

The construction and remediation would generate GHG emissions through the use of vehicles and equipment during construction and remediation. The period of construction and remedial action would be short-term. Construction-phase GHG emissions would occur directly from the off-road heavy-duty equipment and the on-road trucks and motor vehicles needed to transport materials, including debris, mobilize crews, and bring equipment to and from the site.

In addition to other equipment and vehicle activity, if hauling from the two sites overlaps, the remediation activity would generate an average of 5 heavy-duty truck round trips per hour per site, or 80 round trips per day over 2.5 weeks. This would include trips for both hauling material of site and for delivery of any backfill required. Construction-related air quality BACTs would minimize unnecessary equipment use and reduce GHG emissions. Emissions caused over the short term of the construction and remediation would be a fraction of 10,000 MTCO<sub>2e</sub>, although construction activities would not be subject to any quantitative threshold (BAAQMD, 2010). In summary, levels of GHG emissions caused by construction equipment use would not occur in significant quantities. The GHG emissions due to construction and remedial action would be less than significant.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

## Impact Analysis:

The Project would be consistent with the CARB Climate Change Scoping Plan. The Climate Change Scoping Plan depends on coordinating energy and transportation policies, with a focus on reducing emissions from all manners of motor vehicle travel. The planned construction and remedial action would include air quality BACTs to minimize unnecessary equipment use. As such, the Project activities would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions and no further analysis is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September
3. BAAQMD (Bay Area Air Quality Management District), 2010. *Proposed Air Quality CEQA Thresholds of Significance*. May.
4. CARB (California Air Resources Board). 2008. *Climate Change Scoping Plan, Framework for Change, as Approved December 2008, Pursuant to AB32*.
5. \_\_\_\_\_. 2007. *California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*. November.
6. CAT (Climate Action Team). 2009. *Draft Biennial Report*. March.
7. \_\_\_\_\_. 2006. *Climate Action Team and California Environmental Protection Agency. Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.
8. IPCC (Intergovernmental Panel on Climate Change). 2007. *Climate Change 2007: Synthesis Report, the Fourth IPCC Assessment Report*. May.

## 8. Hazards and Hazardous Materials

### Project Activities Likely to Create an Impact:

- Excavation
- Recycling
- Transport of debris offsite

### Description of Baseline Environmental Conditions:

#### BBDA 1A:

As part of site investigations performed at BBDA 1A since 1992, soil samples were collected and analyzed for chemicals potentially present based on past site use. Based on evaluation of the analytical data for soil samples collected from BBDA 1A, COCs posing potential human health or potential ecological risks for BBDA 1A were identified. These are:

#### • COCs Presenting a Potential Human Health Risk:

Seven carcinogenic PAHs present at the BBDA 1A site pose a potential human health risk to recreational receptors:

- benzo(a)anthracene
- benzo(a)pyrene
- benzo(b)fluoranthene
- benzo(k)fluoranthene
- chrysene
- dibenzo(a,h)anthracene
- indeno(1,2,3-cd)pyrene

#### • COCs Presenting a Potential Ecological Risk:

- Metals (copper, lead, silver, and zinc) and one pesticide (4,4'-DDT) are present in soil at concentrations that exceed Presidio preliminary remediation goals (PRGs) for special-status ecological receptors (applied to native plant community zones). Only silver and zinc are present at concentrations that exceed ecological buffer zone PRGs (applicable to landscaped zones).

The maximum detected concentrations and site specific cleanup levels for BBDA 1A COCs are provided below.

| COCs                                     | Maximum Detected Concentration | Site-Specific Cleanup Level |  |                 |
|--|--------------------------------|-----------------------------|--|-----------------|
|  |                                | Ecological Buffer Zone      | Ecological Special Status Species Zone |                 |
|  |                                |                             | Serpentinite                           | Colma Formation |
| mg/kg                                    | mg/kg                          | mg/kg                       | mg/kg                                  |                 |
| <b>METALS</b>                            |                                |                             |  |                 |
| Copper                                   | 95                             | 120                         | 85                                     | 49              |
| Lead                                     | 560                            | 300                         | 160                                    | 160             |
| Silver                                   | 3.1                            | 2                           | 2                                      | 2               |
| Zinc                                     | 460                            | 160                         | 160                                    | 60              |
| <b>POLYNUCLEAR AROMATIC HYDROCARBONS</b> |                                |                             |  |                 |
| Benzo(a)anthracene                       | 62                             | 2.5                         | 2.5                                    | 2.5             |
| Benzo(a)pyrene                           | 69                             | 0.25                        | 0.25                                   | 0.25            |
| Benzo(b)fluoranthene                     | 87                             | 2.5                         | 2.5                                    | 2.5             |
| Benzo(k)fluoranthene                     | 27                             | 25                          | 25                                     | 25              |
| Chrysene                                 | 100                            | 40                          | 30                                     | 30              |
| Dibenzo(a,h)anthracene                   | 9.4                            | 0.25                        | 0.25                                   | 0.25            |
| Indeno(1,2,3-cd)pyrene                   | 30                             | 2.5                         | 2.5                                    | 2.5             |
| <b>PESTICIDES</b>                        |                                |                             |  |                 |
| 4,4'-DDT                                 | 0.081                          | 0.53                        | 0.0082                                 | 0.0082          |

**BBDA 2:**

As with BBDA 1A, a number of site investigations have been undertaken at BBDA 2. COCs in soil at BBDA 2 are as follows:

- COCs Presenting a Potential Human Health Risk:
- Benzo(a)pyrene was identified as a human health COC..
- COCs Presenting a Potential Ecological Risk:

Four metals (copper, lead, silver, and zinc) are present at concentrations that exceed Presidio PRGs for special-status ecological receptors (native plant community zone). Only silver and zinc are present at concentrations that exceed ecological buffer zone PRGs (landscaped areas).

The maximum detected concentrations and site specific cleanup levels for BBDA 2 COCs are provided below.

| COCs   | Maximum Detected Concentration | Cleanup Level |
|--|--------------------------------|---------------|
|  | mg/kg                          | mg/kg         |
| <b>Metals</b>                                  |                                |               |
| Copper   | 220                            | 85            |
| Lead   | 330                            | 160           |
| Silver   | 14                             | 2             |
| Zinc   | 1200                           | 160           |
| <b>Organochlorine Pesticides</b>               |                                |               |
| Total-Chlordane                                | 0.141                          | 0.009         |
| 4,4'-DDT                                       | 0.15                           | 0.0082        |
| <b>Polycyclic Aromatic Hydrocarbons (PAHs)</b> |                                |               |
| Benzo(a)pyrene                                 | 0.8                            | 0.11          |

Analysis as to whether or not project activities would:

- Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

**Impact Analysis:**

The proposed remedial action is designed to permanently remove soil and debris containing COCs above cleanup levels from BBDA 1A (See Figure 4) and BBDA 2 (See Figure 6), expose underlying uncontaminated soil, recycle the debris where possible, and relocate the contaminated soil and debris to an offsite facility designed to manage the waste. Project implementation would not require the transport, use, or disposal of hazardous materials, except for excavated material that would be hauled offsite. The work would be conducted in accordance with the RAPs and a list of federal and state regulations identified in the RAPs (see ARARs Section of the RAPs).

During remediation activities, access to the sites would be restricted to prevent potential public exposure to health or safety risks. Potential exposure of workers and public to contaminated materials during excavation and stockpiling activities would be controlled through the air quality, dust, and runoff control measures. All hazardous wastes generated in the excavation of the site would be properly stored, handled, and transported in accordance with state and federal laws and regulations. The Trust would comply with requirements for proper recordkeeping. Workers implementing the remedial activities would have appropriate training and would use personal protective equipment as necessary to minimize exposure to contaminants.

Transport of excavated materials would occur along authorized haul routes within the Presidio and along major thoroughfares outside the Presidio. No approval is required from the City and County of San Francisco or other agency for transport along major thoroughfares and signed truck routes.

Based on the implementation of the Project measures identified above, the Project would not create a significant hazard to the public.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact Analysis:

The excavated wastes would be solid, non-flammable, non-corrosive and non-explosive and the unlikely event of a spill of such materials during transport would not present a significant health risk or environmental threat. Approximately 803 truckloads would be necessary to haul off the excavated material for the sites. The active work, stockpile, and staging areas would be enclosed with temporary construction fencing. The contaminated soil would be transported in accordance with state and federal requirements for the handling and transportation of hazardous wastes. Transport would occur along authorized haul routes within the Presidio and along major thoroughfares outside the Presidio. No approval is required from the City and County of San Francisco or other agency for transport along major thoroughfares and signed truck routes.

Material removed during excavation would be limited to that which has been identified as being contaminated and requiring remediation. Such material would be handled and stockpiled consistent with applicable regulations and Presidio BMPs, and would not present a significant health risk or environmental threat. Therefore, the Project would not create a significant hazard to the public due to foreseeable conditions resulting in a release of hazardous substances.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

Impact Analysis:

Excavation would not occur within one-quarter mile of an existing or proposed school. Transport would occur along authorized haul routes. These routes may come within one-quarter mile of existing or proposed schools, but would not pose a significant hazard. Although hazardous materials would be excavated and transported to offsite disposal facilities, these projects are not expected to release significant quantities of hazardous emissions.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

Impact Analysis:

The Presidio of San Francisco is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 because it is owned by the Federal government.<sup>2</sup> However, the proposed remedial action is designed to reduce long-term hazards to human health and the environment and would not create a significant

<sup>2</sup> DTSC's sites listed pursuant to HSC § 25356 are subject to listing under the Government Code Section 65962.5. However, sites owned by the Federal Government are excluded from listing. The implementing regulations provide that sites may be listed pursuant to HSC § 25356 if (a) they are not owned by the Federal Government and (b) a release or threatened release of hazardous substances has been confirmed by on-site sampling. (California Code of Regulations, Title 22, Section 67400.1). The BBDA 1A and BBDA 2 remediation sites also do not meet other requirements for listing under Government Code Section 65962.5.

hazard to the public or the environment. Short-term hazards during construction would be controlled by the engineering and dust control measures identified above in 7a.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact Analysis:

No road closures or modifications would be required to implement the Project. Parking areas would be temporarily usurped by the project during implementation. Execution of the RAPs, including intermittent hauling of soil and debris from the sites along established truck routes, would not impair implementation of or physically interfere with emergency response or evacuation plans. To ensure safety, a site-specific HSP would be prepared. The HSP describes the controls and procedures to be implemented to minimize the incidents, injury, and health risks associated with the activities to be conducted at the site. The HSP would be prepared according to the applicable requirements of 29 CFR 1910.120 (Federal workers and contractors), and CCR Title 8 General Industrial Safety Order (GISO) 5192 (contractors), for work at hazardous waste sites. The HSP would contain, at a minimum, the following elements:

- A hazard evaluation;
- Names of key personnel and the site safety coordinator;
- A statement that personnel have completed required training;
- Medical surveillance requirements and personal protective equipment to be used by site personnel;
- The types and frequency of personal and area air monitoring, instrumentation and sampling techniques for monitoring of health and safety;
- Site control measures, including the designation of work zones (e.g., exclusion, contamination-reduction and support zones) and safe work procedures for work near structures or topographic breaks, slopes, wall, etc;
- Management of wastes and decontamination procedures for personnel and equipment;
- Noise and dust control procedures and action levels;
- Site transportation procedures;
- Contingency plans including telephone numbers and contact names; and
- Location and routes to the nearest emergency and non-emergency medical care facilities.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September
3. NPS, 1994. *Creating a Park for the 21st Century, from Military Post to National Park - Final General Management Plan Amendment, Presidio*

## 9. Hydrology and Water Quality

Project Activities Likely to Create an Impact:

- Topographic changes from excavation and site grading

Description of Baseline Environmental Conditions:

Groundwater in the area is part of the Coastal Bluffs Groundwater Basin, and is not currently used as an active drinking water source. Groundwater and surface water were not encountered during investigation activities at BBDA 1A and BBDA 2 (AMEC 2012a and b). Excavation would occur during the dry season, so it is not expected that the Project would encounter ground water or surface water.

## Analysis as to whether or not project activities would:

- a. Violate any water quality standards or waste discharge requirements.

## Impact Analysis:

The proposed Project would not violate water quality standards or waste discharge requirements. For disturbed areas greater than one acre, the Water Board has prepared a National Pollution Discharge Elimination System (NPDES) General Permit for Construction Activity. As a CERCLA project, the Project is exempt from acquiring a permit from the Water Board (EPA OSWER Directive 9355.7-03). However, the work would be conducted pursuant to the substantive requirements of the General Permit for Construction Activity. The Project would include implementation of BMPs for construction site planning and management, erosion and sediment control, and pollution prevention, which would be contained in the Storm Water Pollution Prevention Plan (SWPPP) document. The SWPPP would include Project specific measures to reduce surface runoff and erosion. To uphold water quality standards that are presented in the Clean Water Act and administered by the Water Board, the remedial design plans for the Project would include an erosion control plan to address onsite erosion, sedimentation, and pollution control concerns. With the implementation and maintenance of these sedimentation and pollution control measures, the Project would not violate any water quality standards.

With the implementation and maintenance of the sedimentation and pollution control measures described below, the Project would not violate any water quality standards.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

## Impact Analysis:

The remediation project would not involve pumping or removal of groundwater. The Project would not install impervious materials that would affect recharge. Therefore, the Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficient in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.

## Impact Analysis:

During excavation, existing local surface drainage patterns would be altered. In accordance with the erosion control plan in the remedial design, post-construction erosion monitoring and erosion control measures would be implemented as necessary. Examples of stabilization measures might include: installation of wattles, stabilization matting, fabric, and blankets on newly exposed soil and after work is completed on short, steep, and/or sparsely vegetated slopes. With the implementation of these controls, the proposed remedial actions would not substantively alter or adversely affect the existing drainage pattern of the sites and would not result in substantial erosion or siltation on or off-site.

The Project would not affect existing storm water drainage facilities. The Project would not increase surface water runoff. After the sites are re-graded, the slopes in the remediated areas may experience localized erosion and dislodgement, particularly during heavy rains. Movement of surface soils is consistent with natural processes found in coastal bluff environments at the Presidio and is characteristic of the Pacific coastline. No streams or rivers would be affected by the remedial action.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

## Impact Analysis:

The rate or amount of surface runoff could potentially increase slightly following excavation and grading activities; however, these activities would occur during the dry season. The temporary drainage conditions would be managed with engineering controls included in the remedial design. See 9c above. The remediation project would have no significant long-term impact on local drainage. No streams or rivers would be affected by the remedial action. The proposed remedial action would not alter the existing drainage pattern of the site in a manner which would result in flooding on or off site.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

## Impact Analysis:

The Project would not require use of storm water drainage systems, nor would it result in substantial additional sources of polluted runoff. Drainage is overland to the ocean. Therefore, the Project would not exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- f. Otherwise substantially degrade water quality.

## Impact Analysis:

The proposed Project would beneficially impact water quality at the Project sites because potential sources of future surface or groundwater contamination would be removed. The excavation, recycling and offsite transfer of contaminated soil and debris would not significantly impact current groundwater conditions.

The excavation area would be graded to provide proper drainage and protected with erosion and weed control measures. The final shape and appearance of the slopes would be addressed in the final remedial designs but would reestablish the historic earthwork profiles. Once the natural site topography is restored, the slopes in the remediated areas may experience localized erosion and dislodgement, particularly during heavy rains. These movements of surface soils are expected to be consistent with natural processes found in coastal bluff environments at the Presidio and are characteristic of the Pacific coastline. Surface drainage and erosion control features would be installed at the sites as appropriate in accordance with the SWPPP. These control features would be observed as part of routine maintenance activities.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- g. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

## Impact Analysis:

The sites are not within a 100-year flood hazard area and would not install structures that would impede or redirect flood flows.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

## Impact Analysis:

There are no levees or dams as part of the Project. None of the proposed activities would expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- i. Inundation by seiche, tsunami or mudflow.

## Impact Analysis:

None of the remedial actions, performed singularly or concurrently, would cause inundation by seiche, tsunami or mudflow. Based on the geographic elevation of the project sites, it is unlikely that the project would be interrupted by the occurrence of a seiche or tsunami. Localized mudslides could occur in unconsolidated soils overlying bedrock on the bluff slopes. Because the work would be performed during the dry season, the potential for mudflows in native materials is negligible.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September
3. NPS, 1994. *Creating a Park for the 21st Century, from Military Post to National Park - Final General Management Plan Amendment, Presidio of San Francisco, Golden Gate National Park Recreation Area, California*. July.

## 10. Land Use and Planning

## Project Activities Likely to Create an Impact:

- Closure of hiking trails and barring site access.

## Description of Baseline Environmental Conditions:

BBDA 1A and BBDA 2 are located on the western edge of the Presidio within the Coastal Bluffs Planning Area in Area A of the Presidio (GMPA 1994, page 108), and subject to land uses identified in the GMPA. Current and planned land use at BBDA 1A and BBDA 2 is recreational. The Coastal Trail, a popular hiking trail, passes north-south through the area. A number of non-maintained, social trails also traverse the area. The newly constructed Golden Gate overlook is just south of BBDA 1A.

U.S. Highway 101 passes through the bridge toll plaza east of the sites. BBDA 1A is accessed via Merchant Road, the nearest public road. This road connects southbound Highway 101 to Lincoln Boulevard. BBDA 2 is south of BBDA 1A and is accessed via Lincoln Boulevard. There is pedestrian but no vehicle access to both sites. Lincoln Blvd provides access to northbound Highway 101 by way of an onramp located on the east side of the bridge toll plaza.

The only occupied structures in the area are GGBHTD maintenance and office facilities. The nearest residence is 1,000 feet away, east of Highway 101. To the southeast, the nearest residence is 1,500 feet away on Storey Avenue. The Fort

Windfield Scott baseball field is located 1,000 feet southeast of the site. The beach west of the site is 500 feet away, at the foot of a steep slope.

The work areas would be fenced and closed to public access during excavation, hauling, and restoration so as to not put the public at risk.

Analysis as to whether or not project activities would:

- a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Analysis:

The proposed Project would improve the environmental conditions at the sites. The remedial activity would temporarily alter or preclude existing and proposed land uses by limiting access to the portion of the hiking trail on the sites and the historic batteries. However, the planned remedial activity would not conflict with any applicable land use plan, policy, or regulation, especially those related to land use and habitat/community conservation. Recreational cleanup levels, in addition to ecological special-status cleanup levels, would be used as soil cleanup levels.

The remediated sites would be restored for future use in accordance with the VMP and site-specific plans to be developed. The proposed remedial action would improve the environmental conditions at the sites and would be in keeping with long-term plans for the area.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact Analysis:

None of the remediation activities would conflict with any habitat conservation plan or natural community conservation plan as there are no habitat conservation plans or natural community conservation plans that cover this area.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

#### References Used:

- AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
- \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September
- City and County of San Francisco, 2010. San Francisco Zoning Map, [http://www.sf-planning.org/ftp/files/publications\\_reports/SF\\_Citywide\\_Zoning\\_Map\\_2-2010.pdf](http://www.sf-planning.org/ftp/files/publications_reports/SF_Citywide_Zoning_Map_2-2010.pdf)
- NPS, 1994. *Creating a Park for the 21st Century, from Military Post to National Park - Final General Management Plan Amendment, Presidio of San Francisco, Golden Gate National Park Recreation Area, California*. July.
- NPS and Trust, 2003. *Presidio Trails and Bikeways Master Plan and Environmental Assessment*. July.
- Presidio Trust and NPS, 2001. *Vegetation Management Plan and Environmental Assessment for the Presidio of San Francisco*. May

## 11. Mineral Resources

Project Activities Likely to Create an Impact:

- None

Description of Baseline Environmental Conditions:

There are no known significant occurrences of mineral resources at the Presidio, therefore this topic will not be analyzed further for Sites BBDA 1A and BBDA 2.

## Analysis as to whether or not project activities would:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

## Impact Analysis:

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

## Impact Analysis:

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California.* September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California.* September

**12. Noise**

## Project Activities Likely to Create an Impact:

- Noise from heavy equipment, trucks, and other vehicles

## Description of Baseline Environmental Conditions:

No hospitals, schools, or residential areas are located in the immediate vicinity of BBDA 1A or BBDA 2. The Coastal Trail crossing BBDA 1A and adjacent to BBDA 2 is considered a noise-sensitive area due to its natural environment and frequent use by park visitors. The aural environment at the sites is dominated the sound of surf at the beach below the sites and by traffic on the bridge and Highway 101, which tends to be focused toward the sites as vehicles descend from the bridge roadbed's high point at center span and traverse the metal road surface.

The noise environment within and outside the Presidio is largely a function of the proximity to motor vehicle traffic, with the quietest areas located farthest from major transportation corridors such as Doyle Drive (Highway 101) and Park Presidio Boulevard (Highway 1). In the vicinity of Highway 1 and U.S. Highway 101 (including Doyle Drive and Richardson Avenue), existing traffic noise levels commonly are above 67 dBA (A-weighted decibels), which is the Federal Highway Administration (FHWA) Noise Abatement Criterion (NAC) for recreation areas, parks, and residences. Because the existing trail through the site would be closed during remediation, and there are no nearby recreational facilities, there are no noise sensitive areas within the Presidio that could be affected by the planned construction and remediation. The nearest residences at BBDA 1A are 1,000 feet to the east, beyond Highway 101 and 1,500 feet to the southeast in Fort Winfield Scott. At BBDA 2, the nearest residences are 1,500 feet to the east, in Fort Winfield Scott east of the playfields. The nearest recreational area is the beach below the sites, where the sound of surf would dominate the noise environment.

As a matter of policy, the Presidio Trust endeavors to meet local standards when feasible. The San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code, 1994) addresses noise in the community. The noise ordinance regulates construction noise, fixed-source noise, and unnecessary, excessive, or offensive noise disturbances within the City. The construction noise regulations in Sections 2907 and 2908 of the San Francisco Police Code provide that:

1. Construction noise is limited to 80 A-weighted decibels (dBA) at 100 feet from the equipment during daytime hours (7 a.m. to 8 p.m.). Impact tools are exempt provided that they are equipped with intake and exhaust mufflers, and
2. Nighttime construction (8 p.m. to 7 a.m.) that would increase ambient noise levels by 5 dBA or more at the Presidio of San Francisco property line is prohibited unless a permit is granted by the Director of Public Works.

The NPS would enforce applicable rules of 36 CFR 2.12 (audio disturbances) to manage use of motorized equipment or machinery that exceeds 60 dBA at 50 feet. Additionally, the NPS protects the natural soundscape wherever possible by monitoring human activities in and near its jurisdictional area, identifying what types of unnatural sound are acceptable in the park, and taking action where needed to implement the NPS Soundscape Management Policy (NPS 2006). Noise levels are generally considered low when below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. For comparison, levels around 75 dBA are common in busy urban areas and levels up to 85 dBA occur near major freeways and airports.

Analysis as to whether or not project activities would result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

**Impact Analysis:**

Noise generated by excavation and hauling activities would be temporary, intermittent, and dispersed within BBDA 1A and BBDA 2. Control measures may include, but not be limited to, proper tuning of equipment (BACTs), placement of noisy equipment away from sensitive receptors as practicable, and scheduling noisier operations during periods of low visitor use, to the extent feasible. Because of these controls, the temporary, intermittent and dispersed nature of noise-generating activities would not result in long-term or significant noise increases. There are no residential areas in close proximity to the sites. Noise impacts would be generally limited to intermittent users, such as trail hikers, and other transitory visitors during daylight hours. However, with closure of the trails at these locations, hikers would not be affected. Because the area is not residential, there are no expected noise impacts during evening and early morning hours. In addition, haul routes would generally follow major thoroughfares and signed truck routes. Thus, activities related to the project would not generate unusual or excessive noise or vibration offsite.

Noise generated by the planned remediation activities would be intermittent and spread over 15 weeks at BBDA 1A and 18 weeks at BBDA 2. Noise impacts generally are limited to nearby sensitive receptors (residents), intermittent users, such as trail hikers and park users, and other transitory visitors during daylight hours. Because of the planned site closures and the location of the receptors relative to the two remediation areas, none of these classes of sensitive receptors would be close enough to the Project sites to be affected.

The proposed Project would temporarily increase daytime noise levels from use of equipment and vehicles for site preparation, excavating, stockpiling, and off-hauling of contaminated material. Most construction activities are capable of causing routine noise levels of approximately 79 to 84 dBA measured 100 feet from the activity if noise control is not used, or 69 to 74 dBA with noise control. The following table shows typical noise levels of typical construction equipment, based on the Federal Highway Administration (FHWA) Roadway Construction Noise Model. Noise levels in this inventory are expressed in terms of maximum instantaneous levels (L<sub>max</sub>) with a usage factor for the intermittent nature of construction. The acoustical usage factor estimates the fraction of time each piece of construction equipment might operate at full power (i.e., its loudest condition) while in use.

**Noise Levels and Usage Factors for Construction Equipment**

| <b>Equipment</b>     | <b>Acoustical Usage Factor (%)</b> | <b>Measured L<sub>max</sub> (dBA at 50 feet)</b> |
|----------------------|------------------------------------|--|
| Auger Drill Rig      | 20                                 | 84   |
| Backhoe              | 40                                 | 78   |
| Compactor (ground)   | 20                                 | 83   |
| Compressor (air)     | 40                                 | 78   |
| Concrete Mixer Truck | 40                                 | 79   |
| Concrete Pump Truck  | 20                                 | 81   |
| Crane                | 16                                 | 81   |
| Dozer                | 40                                 | 82   |
| Drill Rig Truck      | 20                                 | 79   |
| Drum Mixer           | 50                                 | 80   |
| Dump Truck           | 40                                 | 76   |
| Excavator            | 40                                 | 81   |
| Flat Bed Truck       | 40                                 | 74   |
| Front End Loader     | 40                                 | 79   |
| Generator            | 50                                 | 81   |
| Grader               | 40                                 | 85   |
| Pickup Truck         | 40                                 | 75   |
| Pneumatic Tools      | 50                                 | 85   |
| Pump                 | 50                                 | 81   |

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**Noise Levels and Usage Factors for Construction Equipment**


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| Equipment    | Acoustical Usage Factor (%) | Measured Lmax (dBA at 50 feet) |
|--------------|-----------------------------|--------------------------------|
| Welder/Torch | 40                          | 74                             |

Source: FHWA, 2006.

Notes: Lmax – maximum A-weighted sound level

Noise would be generated by equipment needed to prepare the site, conduct the excavation, load trucks, and haul the material off site. This noise would be generated during daylight hours and in close proximity to heavily used Highway 101 and the ocean. At its closest, the work would occur over 1,000 feet from the nearest residence and would be separated from that location by Highway 101 and intervening vegetation.

During excavation, loading, and hauling, noise levels at the sites would be about 78 to 81 dBA for excavators, backhoes, and front loaders. The large dump trucks used to transport the soil and debris would be the primary source of noise off site. As noted, there are no sensitive receptors near the site, and the surrounding environment is affected by noise from roadways, in particular Highway 101 and Lincoln Blvd. Because sound levels reduce with distance, the noise from the remediation work would not be significant if perceived by sensitive receptors.

Construction trucks generate peak noise levels of about 80 dBA, and at 100 feet, distance would attenuate the level to about 74 dBA. Inside buildings, noise from outside sources is reduced by about 15 to 20 dBA due to the attenuating effect of the structural components of the dwelling. Once on public highways, the trucks would be a minor part of existing traffic and the resulting noise environment. Noise contributed by haul trucks along this route would occur only during the day, when people are less sensitive to noise (as compared to night), and would be intermittent rather than constant.

The Trust has the authority and responsibility to manage the remediation of contamination throughout the Presidio, in both Trust and NPS jurisdictional areas. As warranted, NPS would implement the appropriate Soundscape Management Policy to minimize the magnitude and duration of the construction noise while protecting other park resources and values. Examples of actions to prevent noise include erecting barriers around construction sites and stationary construction equipment such as compressors; this would reduce noise by as much as 5 dBA. To further reduce noise impacts, the construction sites could be temporarily closed to park users.

Reasonable and feasible noise abatement features measures would be implemented to manage construction noise. As appropriate, control measures would include, but not be limited to, proper maintenance and tuning of equipment, placement of noisy equipment away from sensitive receptors as practicable, noise-control mufflers, and scheduling noisier operations during periods of low visitor use (weekdays), to the extent feasible. In addition, construction would be scheduled to limit impacts on wildlife and bird nesting activity in consultation with natural resource specialists. Within the Presidio, transport of equipment and soil and debris would occur along routes approved by the NPS (see Section 15). Outside of the Presidio, haul routes would follow major thoroughfares and signed routes approved for truck traffic. Because of these controls, the activities would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

**Conclusion:**

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

**Impact Analysis:**

Although soil excavation and earthwork are anticipated to generate minor to moderate amounts of groundborne vibration groundborne noise, none of the activities are anticipated to generate excessive amounts. Vibration in the ground dies out rapidly with distance from the source. Planned remediation activities would result in a total of 15 weeks of noise-related activities (preconstruction and construction activities) at BBDA 1A and 18 weeks at BBDA 2.

The work associated with remedial actions at BBDA 1A and BBDA 2 would be temporary. The work would occur at the edge of the park and in an area remote for heavily used park facilities. Park visitors would not be significantly impacted by the work to be performed because of its temporary nature.

Vibration from equipment would be perceptible in the immediate vicinity of the equipment or activity. Tamping of ground surfaces and the passing of heavy trucks on uneven surfaces would create perceptible vibration in the immediate vicinity of the activity. The level of groundborne vibration that could reach sensitive receptors depends on the distance to the receptor, the equipment creating vibration, and the soil conditions surrounding the construction site. The impact from construction-related groundborne vibration would be short-term and confined to only the

immediate area around the activity (within about 25 feet). Because the remediation work would not be near residences, no excessive groundborne vibration or noise level would occur at the residences. Because vibration related to remediation and transportation of soil and debris would be temporary, intermittent, and far from residences and other receptors, impacts related to groundborne vibration and noise would be less than significant.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.

Impact Analysis:

The work associated with remedial actions throughout the Presidio would be temporary and would therefore not result in a permanent increase in noise levels in the area. Noise impacts would generally be limited to interim users, such as hikers, and other visitors during daylight hours. Activity and increased ambient noise levels would occur intermittently over 15 weeks for BBDA 1A and 18 weeks for BBDA 2. Upon completing the work, no permanent noise source would remain. Because the noise would be limited to the duration of activity, the Project would not result in a permanent increase in noise levels in the vicinity of the two sites.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Analysis:

Temporary and periodic increases in ambient noise levels in the Project vicinity would occur above existing levels. Excavation and hauling would be limited to during daylight hours, when receptors are less sensitive. As appropriate, construction activities would employ noise control measures to ensure that the increase in noise would not be substantial (described in Section 12a), such as placement of noisy equipment away from sensitive receptors as practicable and using noise-control mufflers. As a consequence, temporary increases in the ambient noise level would not be substantial and would be less than significant.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September
3. FHWA (Federal Highway Administration). 2006. FHWA Highway Construction Noise Handbook. (FHWA-HEP 06 015; DOT VNTSC FHWA 06 02). August. <http://www.fhwa.dot.gov/environment/noise/handbook/index.htm>.
4. NPS, 1994. *Creating a Park for the 21st Century, from Military Post to National Park - Final General Management Plan*
5. \_\_\_\_\_, 2006. *Management Policies 2006, Soundscape Management 4.9*.

### 13. Population and Housing

Project Activities Likely to Create an Impact:

- None.

**Description of Baseline Environmental Conditions:**

The Presidio currently has over 1,000 occupied multifamily and single-family housing units and a residential population of just under 3,000 persons. The Project would not create a demand for housing nor increase local population. Construction workers, equipment operators, and truck drivers would be from the local labor pool and would maintain their current residences. The Project does not require the removal of any housing. Therefore, this topic is not analyzed further for Sites BBDA 1A and BBDA 2.

Analysis as to whether or not project activities would:

- a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact Analysis:

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Impact Analysis:

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Analysis:

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

**References Used:**

- AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California.* September
- \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco California.* September

**14. Public Services**

Project Activities Likely to Create an Impact:

- None.

**Description of Baseline Environmental Conditions:**

The Presidio is jointly administered by the NPS and the Trust. Police services are provided by the Park Service Police. Fire and emergency response services are provided by the San Francisco Fire Department. Project excavation would occur in an area where there are no public roads and would not affect emergency access to the vicinity. The Project would not increase population or the use of public services. Therefore, this topic is not analyzed further for BBDA 1A and BBDA 2.

Analysis as to whether or not project activities would:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

## Impact Analysis:

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## References Used:

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California.* September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California.* September

## 15. Recreation

## Project Activities Likely to Create an Impact:

- Closing trails and barring access to sites

## Description of Baseline Environmental Conditions:

The Presidio is a National Park, and provides recreational, residential, and office-type land uses, in addition to natural areas and zones of non-native forest. Recreational uses of the Presidio vary from passive activities, such as walking and bird watching, to active sports such as baseball, tennis, and bicycling. The Juan Bautista de Anza National Historic Trail, California Coastal Trail, and the Bay Area Ridge Trail (herein collectively referenced as the Coastal Trail or trail) share a common path through Project area. The Coastal Trail, a popular hiking trail, runs along the top of the bluff and passes through center of BBDA 1A and to the east of BBDA 2. A number of non-maintained, social trails also traverse through the area. Activities associated with both sites are primarily trail walking, nature observation, and visiting the batteries on site.

## Analysis as to whether or not project activities would:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

## Impact Analysis:

The active construction areas would be fenced as needed to restrict and redirect public access. The existing Coastal Trail would be temporarily rerouted around the work areas to keep park visitors away from heavy equipment operations and staging/stockpiling areas. Excavation would remove the existing trail and many of the unofficial social trails within the area. During site restoration, at BBDA 1A, the Coastal Trail would be reestablished. Social trails would be permanently closed and the land restored, consistent with the Presidio Trails and Bikeways Master Plan and Environmental Assessment. Under the GMPA, "(t)o protect rare and sensitive plants, visitor access will be confined to developed trails. ...The steep bluff area north of Baker Beach will be treated as a wild coast where people can discover nature's beauty and power. No new interpretive facilities will be developed in this area, except along the Coastal Trail. This trail traverses the length of the bluffs, avoiding areas that are closed to the public to protect rare and endangered species."

To protect the public during construction, access to the beach below BBDA 2 would be closed while the project is implemented. The remedial design would include pedestrian and traffic detours designed to keep visitors out of active work areas while permitting full use of other park features.

Although some passive recreational use of the Presidio would be diverted during construction, the proposed remedial action would not increase the use of existing parks or recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Temporary and permanent effects upon recreational facilities would be less than significant.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

**Impact Analysis:**

Following remediation, according to the GMPA, "(t)o protect rare and sensitive plants, visitor access will be confined to developed trails." This would decrease somewhat the current recreational use of the sites by eliminating social trails. This is not of a magnitude that could require the expansion or construction of recreational facilities elsewhere to compensate for site restrictions. Recreation and the scenic and biological quality of the site would be enhanced due to the remediation efforts.

**Conclusion:**

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

**References Used:**

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California.* September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California.* September
3. NPS, 1994. *Creating a Park for the 21st Century, from Military Post to National Park - Final General Management Plan Amendment, Presidio of San Francisco, Golden Gate National Park Recreation Area, California.* July.
4. NPS and Trust, 2003. *Presidio Trails and Bikeways Master Plan and Environmental Assessment.* July.
5. Trust and NPS, 2001. *Vegetation Management Plan and Environmental Assessment for the Presidio of San Francisco.* May.

## 16. Transportation and Traffic

**Project Activities Likely to Create an Impact:**

- Delivering equipment and materials to the remediation site
- Daily worker traffic
- Hauling excavated material from the site
- Delivering backfill and plant material

**Description of Baseline Environmental Conditions:**

The Presidio is a National Park site, and includes recreational, residential, and office-type land uses, in addition to natural areas and zones of non-native forest. The Presidio is a heavily visited facility, with some areas having considerably greater visitation than others. With the exception of two regional highways (U.S. Highway 101 and Route 1) maintained by the California Department of Transportation, roads within the Presidio are maintained by the federal government, and serve local traffic within or through the Presidio. Except at the bridge toll plaza and gates on the east side of the Presidio, these highways are not readily accessible from the Presidio. Within the Presidio, traffic speeds are low. Congestion occurs intermittently at principal (four-way stop sign controlled) intersections. Traffic in city neighborhoods surrounding the Presidio varies from very light (in residential neighborhoods), to heavy (along Lombard Street, for example). The Project sites would be accessed from Merchant Road (BBDA 1A) or from Lincoln Blvd (BBDA 2) within the Presidio.

Because they are important to understanding Air Quality impacts, transportation and traffic have been described in Section 3. Air Quality, in this Initial Study. That information is not repeated here.

**Analysis as to whether or not project activities would:**

- a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

**Impact Analysis:**

Trucks required at the site would travel to off-site destinations via Highway 101. This route is consistent with the Freight Traffic Routes identified in the *Transportation Element of the General Plan of the City and County of San Francisco*. Vehicle traffic (employee vehicles and haul trucks) would not cause a significant increase in traffic in relation to the existing traffic load and the capacity of the street system. Based on the number of trucks required and established routes, no substantial increase in traffic is expected.

Vehicles entering and exiting the BBDA 1A site would use Merchant Road. Depending on their final destination, vehicles exiting BBDA 1A would leave the site on Merchant Road and go north for 700 feet to Highway 101 southbound, or use Merchant Road to reach Lincoln Blvd, which leads to northbound Highway 101. Trucks would then travel either south on Highway 101 or north across the Golden Gate Bridge, depending on the location of the disposal site. Based on current plans to haul to Solano County and to the transshipment facility in southeast San Francisco, it is expected that the Merchant Road to southbound Highway 101 route would be used.

During an 8-hour work day, a maximum of 40 truck round-trips per day would use this route from BBDA 1A. This would result in about 5 trucks per hour in each direction (full departing, empty returning). This low volume would have a less than significant impact on local traffic and on designated truck routes outside the Presidio.

At BBDA 2, vehicles would enter and exit the site via Langdon Court off Lincoln Blvd. Exiting vehicles would reach Highway 101 by the same routes as described for BBDA 1A, with the probable route being along Merchant Road to southbound Highway 101. During an 8-hour work day, a maximum of 40 truck round-trips per day would use this route from BBDA 2. This would result in about 5 trucks per hour in each direction. This low volume would have a less than significant impact on local traffic and on designated truck routes outside the Presidio.

It is possible that both sites would have coincident hauling schedules. This would have the effect of combining their overall traffic impacts. If coincident hauling was to occur, then a maximum of 200 truck round-trips per day would occur. This would result in about 20 trucks per hour in each direction for the combined BBDA 1A and BBDA 2 hauling. Loaded trucks would use Merchant Road to the highway; returning empty trucks would use the highway to the Lincoln Blvd exit and continue to their respective sites off Merchant Road (BBDA 1A) or Langdon Court (BBDA 2).

Although impacts of each project may be less than significant, the cumulative effect of all projects may be significant. Therefore, CEQA requires consideration of the impacts of a proposed project in combination with impacts of other projects or activities, where there is a potential for there to be a cumulative effect from the projects when viewed in combination.

CEQA requires consideration of the cumulative impacts of a proposed project in combination with impacts of other projects or activities that have the potential to combine with impacts of the proposed project. Although impacts of each project may be less than significant, the cumulative effect of all projects may be significant.

Cumulative Scenario: There are known projects on or near the Presidio that would or may overlap with the BBDA work in 2013. Their locations are shown on Figure 7. These include: the ongoing Doyle Drive (Presidio Parkway) replacement project; continuing Presidio Main Post update projects; remedial dredging of Mountain Lake, and remediation of soil from the Barnard Avenue Protected Range.

With the exception of the ongoing Doyle Drive project, these projects are a considerable distance from the BBDA 1A and 2 sites. Detours and road closures are required during the duration of the Doyle Drive work and change from time to time as work progresses. The Doyle Drive project EIS/EIR concluded that implementation of the Transportation Management Plan for that project would ensure that there are no significant transportation/traffic related impacts (FHWA & SFCTA, 2008). In most respects, the BBDA 1A and BBDA 2 sites are isolated from the other projects in terms of the potential to contribute to cumulative effects. The only case in which the BBDA 1A and BBDA 2 work could contribute to a cumulative effect is in its use of trucks and equipment during construction and when hauling material off site. Truck staging during hauling would be accommodated within the staging areas and not on roadways. There are no ongoing project-related impacts once construction is finished.

Level of Service (LOS) is used to describe delay at intersections due to traffic volume and other conditions. Table 16-1 shows existing LOS at intersections along the haul route in the City of San Francisco before trucks merge with traffic on major highways.

| <b>Existing (2011) Intersection Level of Service</b> | <b>Traffic Control</b> | <b>Level of Service (LOS)</b> |
|--|------------------------|-------------------------------|
| Lombard St./Divisadero St.                           | Signal                 | C                             |
| Lombard St./Fillmore St.                             | Signal                 | C                             |
| Lombard St./Van Ness Ave.                            | Signal                 | D                             |

Source: San Francisco Planning Department, 2011

The levels shown in Table 16-1 include any Doyle Drive related construction traffic. LOS C is described by traffic engineers as “acceptable delays”; LOS D as “tolerable delays”. It is assumed that the contribution of construction-

related traffic from the Doyle Drive project would remain similar in 2013 to what it was in 2011. The cumulative impact of Project-related truck traffic in 2013 would not change the existing LOS.

In addition, the NPS and Trust regularly undertake smaller projects and improvements on the Presidio. In 2013, these are expected to include projects in the general vicinity of the Baker Beach remediation Project: improvements to the Bay Trail east of the Golden Gate Bridge, work at Battery East Parking and Vista Point, work on the Coastal Trail, and ongoing vegetation management and stewardship work along local trail corridors and in natural area zones.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Exceed, either individually or cumulatively, a level of service standard established by the country congestion management agency for designated roads or highway.

Impact Analysis:

Due to the close proximity of BBDA 1A to Merchant Road and the number vehicle trips expected for the project, neither schedule, employee vehicles, nor disposal trips would cause traffic volumes to exceed the level of service (LOS) along found along the haul route. Through vehicular traffic on Merchant Road would not interfere with trucks loading in the staging area located west of Merchant Road.

The nearest intersections, namely Lincoln Boulevard and Merchant Road, currently operate at LOS C (acceptable delay) or better during the a.m. peak hour (typically between 7:30 a.m. and 8:30 a.m.) and p.m. peak hour (typically between 4:30 p.m. and 5:30 p.m.). Loading would generally occur between the hours of 5:30 a.m. and 2:00 p.m., thereby minimizing the impact on peak hour traffic conditions.

The trucks would be loaded from a stockpile at BBDA 1A. The truck staging area would be closed and would not affect local traffic. Access to designated haul routes would be specified in remedial design documents.

Multiple projects at the Presidio may occur during remedial activities at BBDA 1A and BBDA 2. Although several projects may occur simultaneously, construction would not result in a significant impact in traffic. The majority of these construction activities would use Merchant Road and Lincoln Boulevard for haul routes to access Highway 101 near the toll plaza. The cumulative traffic impacts from these projects are not expected to increase the LOS for Lincoln Boulevard. Refer also to the responses to item 16 a.

The level of traffic generated by the Project would be low. Hauling excavated material off site would require about 80 truck round trips per day. During rush hours, when the level of service (LOS) on roads at its lowest, the Project would add about 20 heavy-duty trucks per hour to traffic on Lombard Street and Van Ness Street (i.e., Highway 101). Truck operators would tend to avoid travel during morning and evening peak hours. This level of travel demand would not cause the current LOS to change, would not conflict with any applicable congestion management plan, and would be less than significant.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis:

The staging areas would be located onsite or nearby and would not increase any hazard due to a design feature or incompatible uses. The designated truck routes are designed to minimize traffic hazards (sharp curves or dangerous intersections). Traffic plans would be developed to minimize interaction between park visitors and project traffic. If required, traffic control would be in place at the intersection of the site entrance with Merchant Road and/or the intersection of Merchant Road and Lincoln Blvd when trucks are entering or exiting the site.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Result in inadequate emergency access.

**Impact Analysis:**

The remedial action would not result in inadequate emergency access. Project equipment would be stored onsite and would not obstruct any transportation route used for emergency access vehicles. Emergency access to the Project would be unimpeded.

**Conclusion:**

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

**e. Result in inadequate parking capacity.****Impact Analysis:**

During project construction, public parking at both BBDA 1A and BBDA 2 would be reduced, as part of the parking areas would be within the closed project sites and be used for staging and/or stockpiling. Haul trucks would travel to the job site from remote locations and would not require parking on site or could be parked elsewhere on the Presidio and brought to the sites as needed. Personnel private vehicles and some equipment would require parking, which would be adequate within the closed areas on the sites. A limited number of contractor employees are expected to be working at the Project site and would park in designated areas on the site. Impacts on parking capacity would not be considered significant due to the temporary nature of the activities and the availability of adequate parking nearby.

**Conclusion:**

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

**f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).****Impact Analysis:**

The Project would not significantly alter local traffic patterns in ways conflicting with adopted policies, plans, or programs that support alternative transportation. Because the work area would be temporarily closed during construction, pedestrians (hikers), birdwatchers, and other recreationalists would be temporarily detoured. No bicycle routes would be affected. The effects are not considered significant because of the relatively short duration of the Project and the availability of alternate trails within the Presidio.

**Conclusion:**

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

**References Used:**

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**17. Utilities and Service Systems****Project Activities Likely to Create an Impact:**

- Soil excavation and grading.

## Description of Baseline Environmental Conditions:

Electric, water supply, and communications are provided by the Trust. Gas is provided by PG&E. The Trust's Permit No. 05-0246 from the San Francisco Public Utilities Commission allows water to be tested and discharged to the sanitary sewer. However, none of these services would be required for the project. Any water required for dust control would be obtained from an existing hydrant at the Presidio. Excavated material would be transported to a licensed facility to accept the material.

Analysis as to whether or not project activities would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis:

The Project would have no wastewater treatment needs.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis:

The proposed activities would not require new wastewater treatment facilities. The Project would not increase or significantly change the amount of rainwater or runoff entering or leaving the Project site.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis:

The proposed activities would not require an expansion of existing facilities. Erosion control measures would be used to minimize onsite runoff (see Section 9).

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact Analysis:

No new or expanded water services would be required during or following remediation. Only minor amounts of water would be used for dust control during Project implementation.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

Impact Analysis:

The Project would have no wastewater treatment needs.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

## Impact Analysis:

Excavated material would be transported off site to an appropriately permitted facility designed to manage the solid waste. For the two sites, approximately 11,100 cy of *in situ* material would be excavated, resulting in 14,430 cy of material be hauled offsite. The landfill selected would have sufficient permitted capacity to accommodate the material. Two facilities are under consideration. The current remaining capacity at Buttonwillow Landfill in Kern County is over 10 million cy. The Potrero Hills Landfill in Solano County is expanding its capacity from 21.5 million to 83.1 million cy.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- g. Comply with federal, state, and local statutes and regulations related to solid waste.

## Impact Analysis:

The remediation activities would be conducted in accordance with federal, State, and local statutes and regulations related to solid waste.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

1. AMEC (AMEC Environment and Infrastructure), 2012a. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 1A, Presidio of San Francisco, San Francisco, California*. September
2. \_\_\_\_\_, 2012b. *Draft Feasibility Study/Remedial Action Plan (FS/RAP), Baker Beach Disturbed Area 2, Presidio of San Francisco, San Francisco, California*. September
3. NPS, 1994. *Creating a Park for the 21st Century, from Military Post to National Park - Final General Management Plan Amendment, Presidio of San Francisco, Golden Gate National Park Recreation Area, California*. July.

**Mandatory Findings of Significance**

Based on evidence provided in this Initial Study, DTSC makes the following findings:

- a. The project  has  does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b. The project  has  does not have impacts that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
- c. The project  has  does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

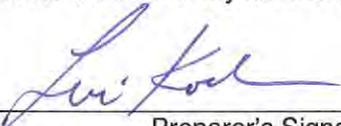
**Determination of Appropriate Environmental Document:**

Based on evidence provided in this Initial Study, DTSC makes the following determination:

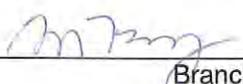
- The proposed project COULD NOT HAVE a significant effect on the environment. A **Negative Declaration** will be prepared.
- The proposed project COULD HAVE a significant effect on the environment. However, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.
- The proposed project MAY HAVE a significant effect on the environment. An **Environmental Impact Report** is required.
- The proposed project MAY HAVE a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.
- The proposed project COULD HAVE a significant effect on the environment. However, all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

**Certification:**

I hereby certify that the statements furnished above and in the attached exhibits, present the data and information required for this initial study evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

|   |                   |
|---|-------------------|
|  | <u>11/29/2012</u> |
| Preparer's Signature  | Date              |

|                  |                        |                       |
|------------------|------------------------|-----------------------|
| <u>Lori Koch</u> | <u>Project Manager</u> | <u>(510) 540-3951</u> |
| Preparer's Name  | Preparer's Title       | Phone #               |

|   |                 |
|---|-----------------|
|  | <u>11/29/12</u> |
| Branch or Unit Chief Signature  | Date            |

|                           |                            |                       |
|---------------------------|----------------------------|-----------------------|
| <u>Denise Tsuji</u>       | <u>Unit Chief</u>          | <u>(510) 540-3824</u> |
| Branch or Unit Chief Name | Branch or Unit Chief Title | Phone #               |

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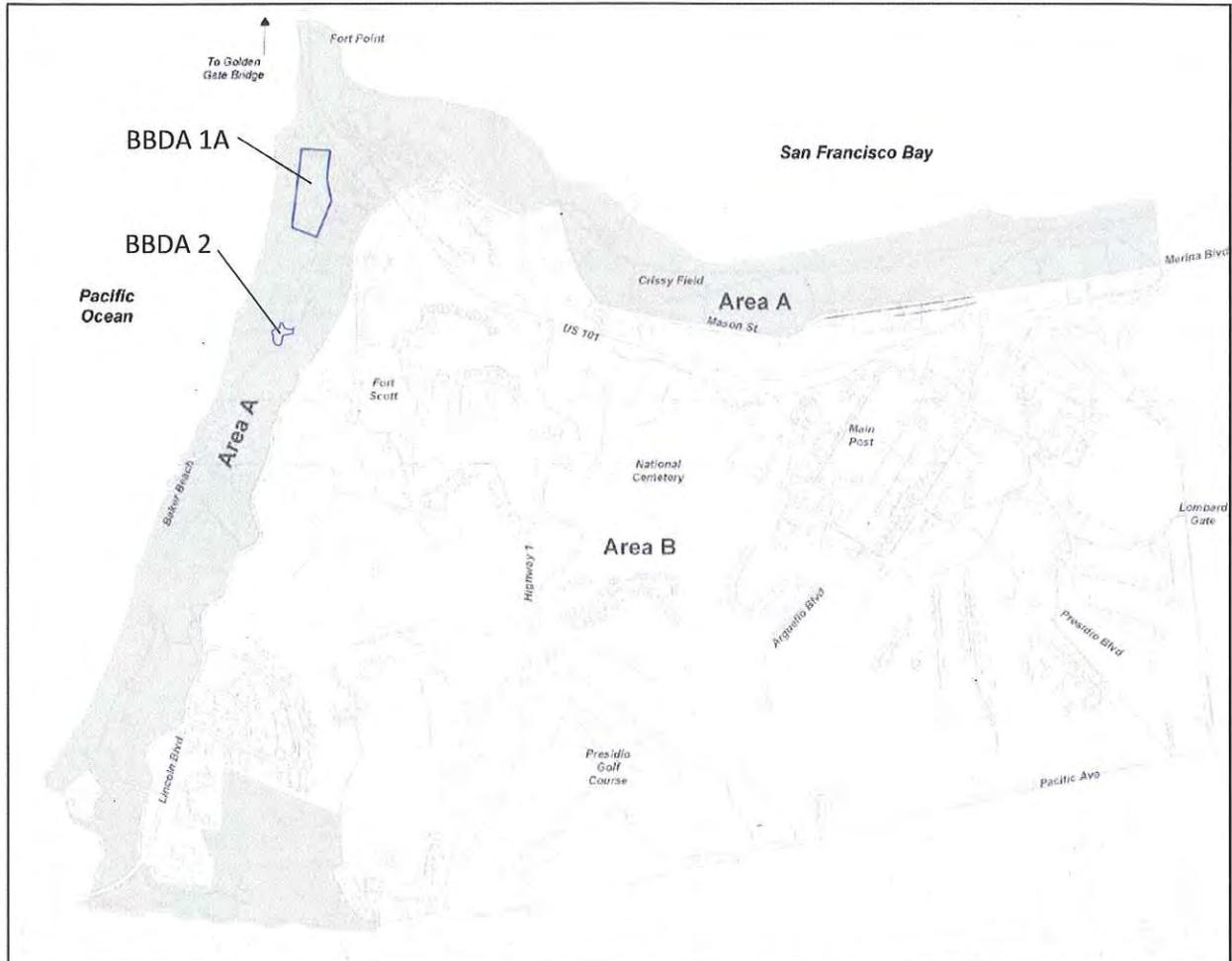
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**ATTACHMENT B: ABBREVIATIONS AND ACRONYMS**

|                   |  |
|-------------------|--|
| ACHP              | Advisory Council on Historic Preservation                  |
| ADMP              | asbestos dust management plan                              |
| AMEC              | AMEC Environmental & Infrastructure, Inc.                  |
| ARARs             | Applicable, Relevant and Appropriate Requirements          |
| BAAQMD            | Bay Area Air Quality Management District                   |
| BACTs             | Best Available Control Technologies                        |
| BBDAs             | Baker Beach Disturbed Areas                                |
| BMPs              | Best Management Practices                                  |
| BO                | Biological Opinion   |
| CARB              | California Air Resources Board                             |
| CEQA              | California Environmental Quality Act                       |
| CERCLA            | Environmental Response, Compensation, and Liability Act    |
| CH <sub>4</sub>   | (CO <sub>2</sub> ), methane                                |
| CNPS              | California Native Plant Society                            |
| CO <sub>2</sub>   | carbon dioxide   |
| COCs              | contaminated by chemicals of concern                       |
| CRI               | cultural resource investigation                            |
| DTSC              | Department of Toxic Substances Control                     |
| EIS/EIR           | Environmental Impact Statement/Environmental Impact Report |
| EKI               | Erler & Kalinowski, Inc                                    |
| FHWA              | Federal Highway Administration                             |
| FS/RAP            | Feasibility Study/Remedial Action Plan                     |
| GGBHTD            | Golden Gate Bridge Highway and Transportation District     |
| GGNPC             | Golden Gate National Parks Conservancy                     |
| GGNRA             | Golden Gate National Recreation Area                       |
| GHG               | greenhouse gas   |
| GISO              | General Industrial Safety Order                            |
| GMPA              | General Management Plan Amendment                          |
| HSP               | Health and Safety Plan                                     |
| LOS               | level of service   |
| LUN               | land use notification                                      |
| MACTEC            | MACTEC Engineering and Consulting                          |
| MSL               | mean sea level   |
| N <sub>2</sub> O  | nitrous oxide  |
| NAC               | Noise Abatement Criterion                                  |
| NAHC              | Native American Heritage Commission                        |
| NHLD              | National Historic Landmark District                        |
| NHPA              | National Historic Preservation Act                         |
| NPDES             | National Pollution Discharge Elimination System            |
| NPS               | National Park Service                                      |
| NR                | National Register  |
| PA                | programmatic agreement                                     |
| PAHs              | polynuclear aromatic hydrocarbons                          |
| PCBs              | pesticides, polychlorinated biphenyls                      |
| PM <sub>10</sub>  | particulate matter 10 microns or less in diameter          |
| PM <sub>2.5</sub> | particulate matter less than 2.5 microns in diameter       |
| PRGs              | preliminary remediation goals                              |
| PTMP              | Presidio Trust Management Plan                             |
| RAPs              | Remedial Action Plans                                      |
| RHAA              | Royston, Hanamoto, Alley, and Abbey                        |
| SFCTA             | San Francisco County Transportation Authority              |
| SHPO              | State Historic Preservation Office                         |
| SWPPP             | Standard stormwater pollution prevention plan              |
| TPH               | total petroleum hydrocarbons                               |
| URS               | URS Corporation  |
| USFWS             | U.S. Fish and Wildlife Service                             |
| VOCs              | volatile organic compounds                                 |

**ATTACHMENT C: FIGURES**

# Appendix C: Figures



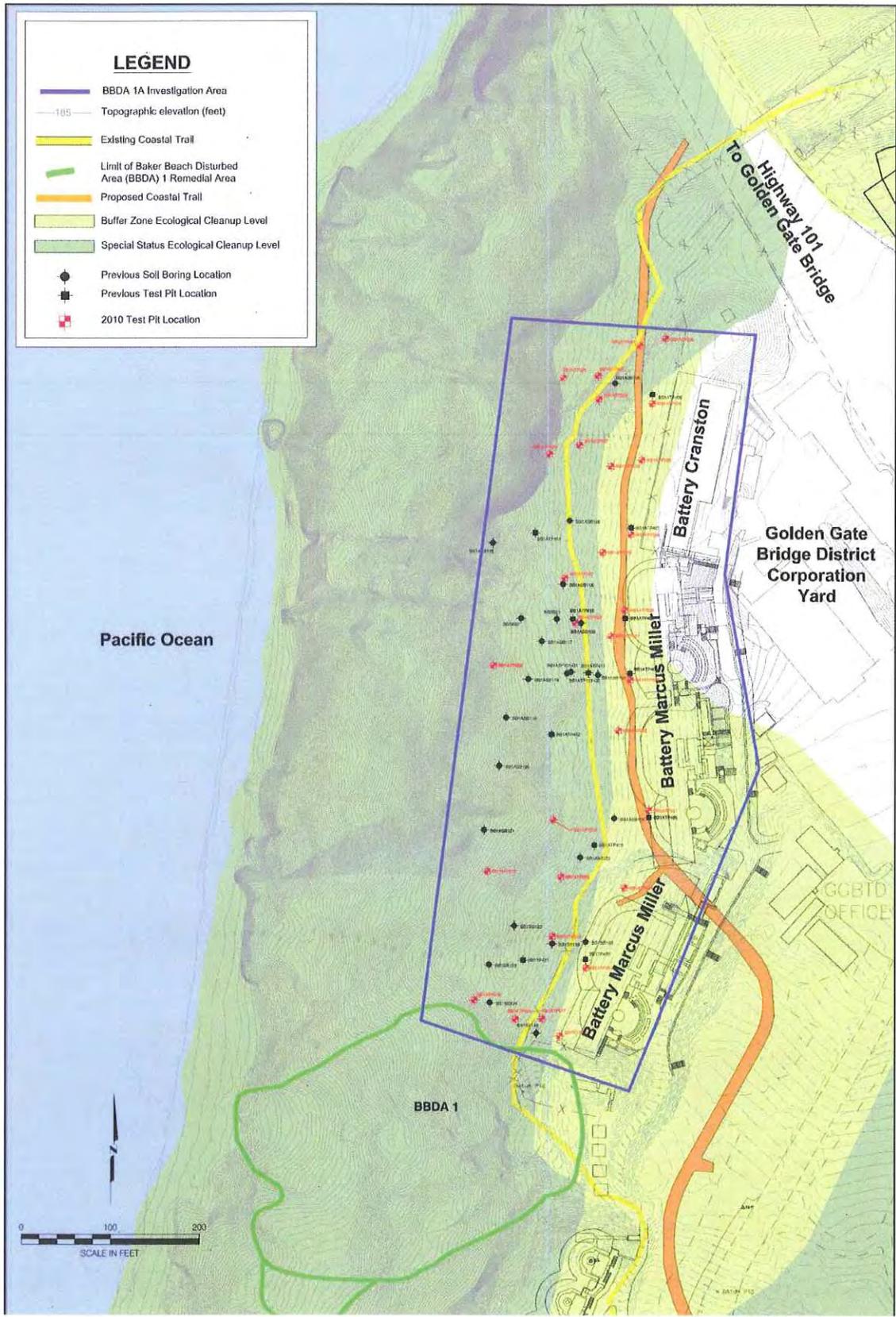
Source: AMEC 2012a & 2012b

**Figure 1: Location of BBDA 1A and BBDA 2 Project Sites within the Presidio**



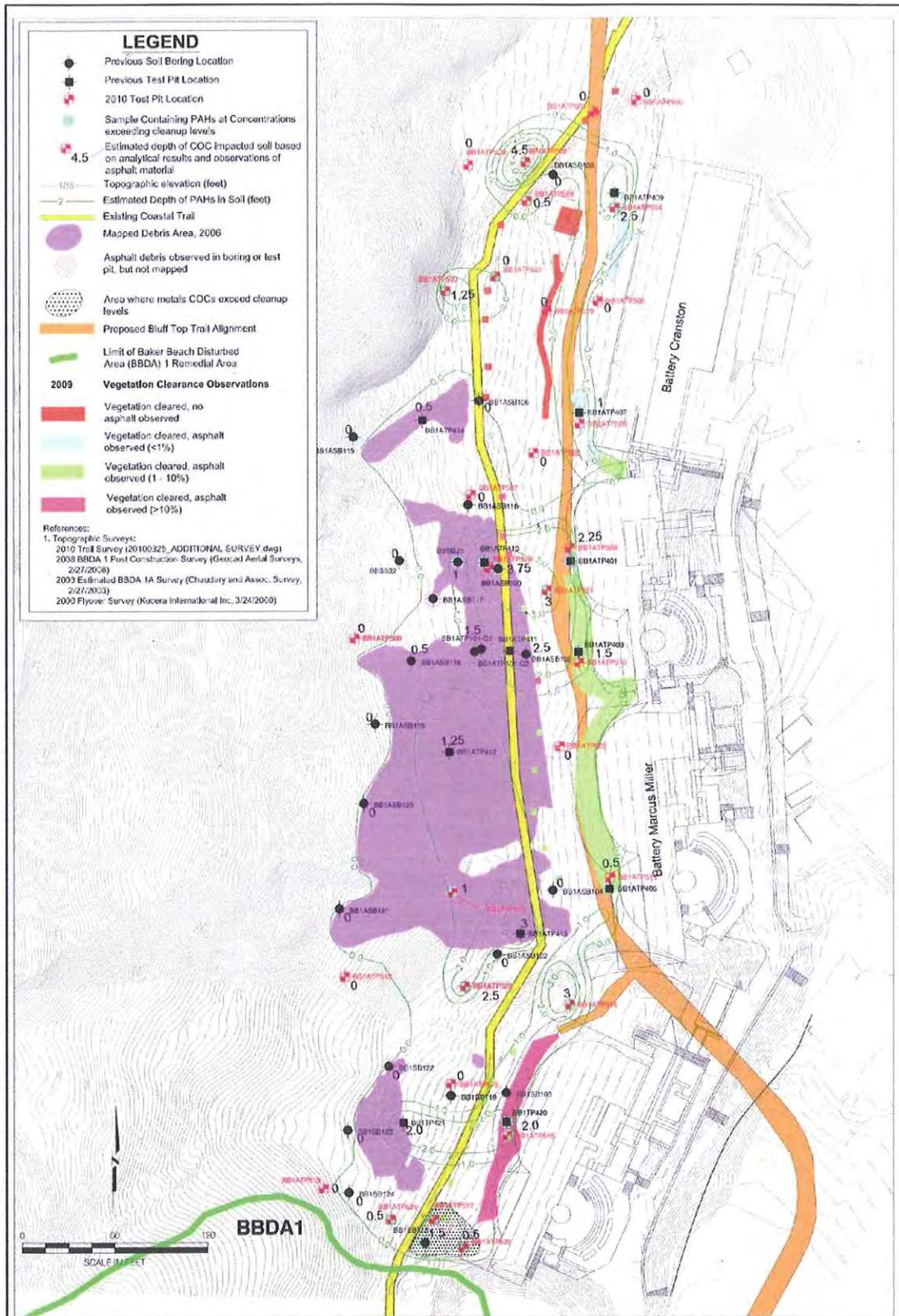
Source: Google Earth

Figure 2: Project Vicinity



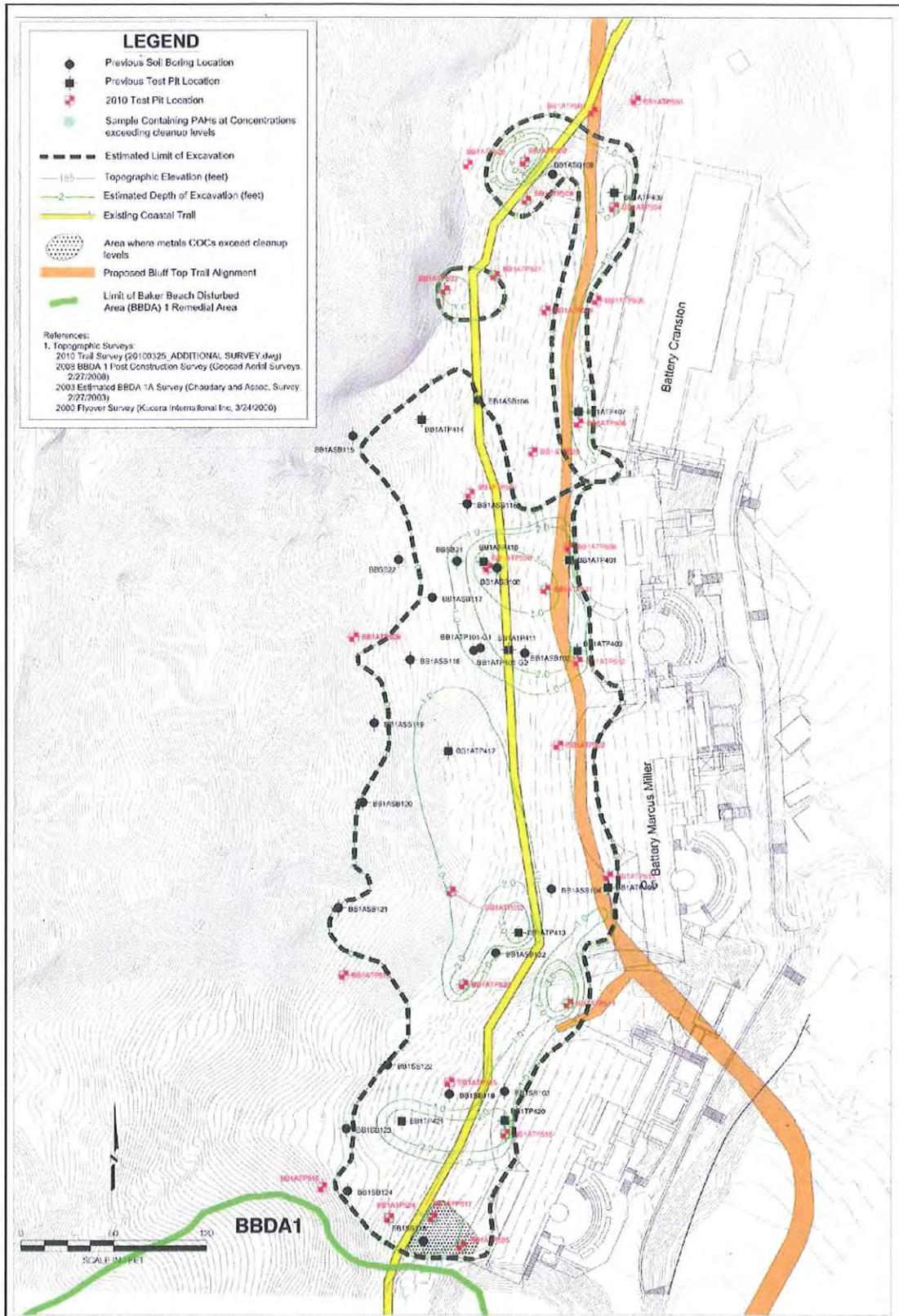
Source: AMEC 2012a, Fig 2-2

Figure 3a: BBDA 1A Sample Locations



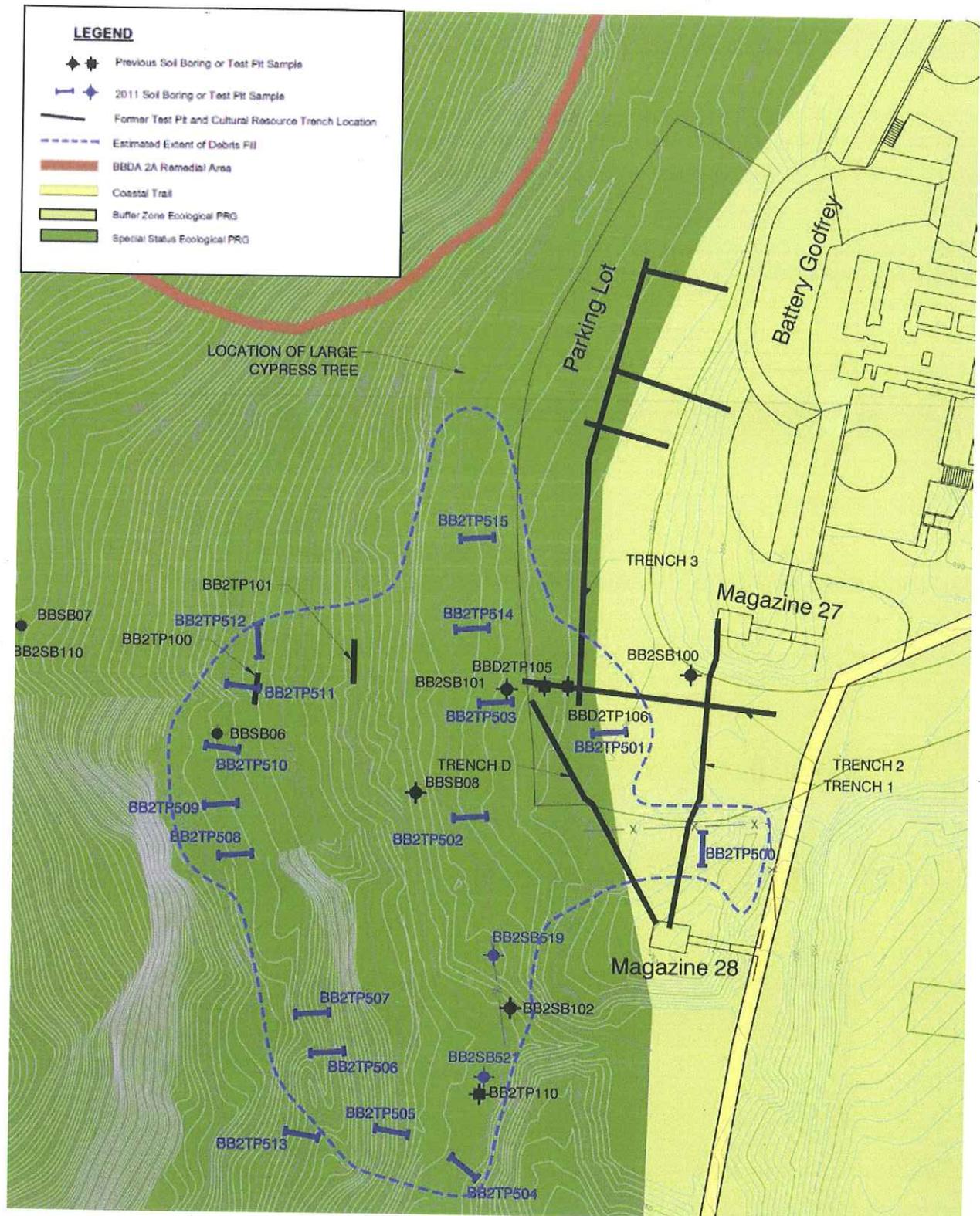
Source: AMEC 2012a, Fig 2-3

Figure 3b: Estimated Horizontal and Vertical Extent of Soil and Debris to be Removed at Site BBDA 1A



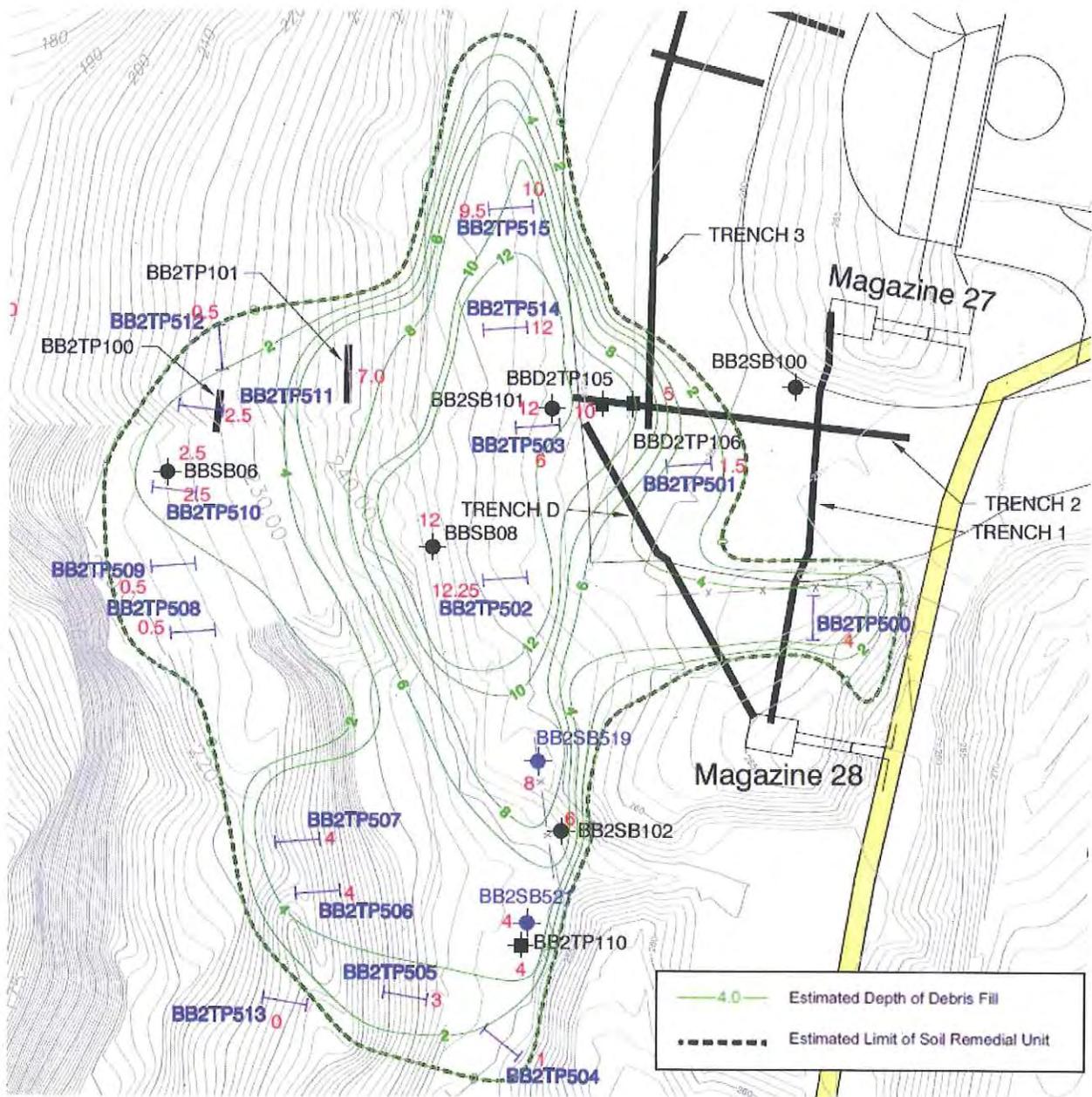
Source: AMEC 2012a, Fig 6-2

Figure 4: Preferred Remedial Alternative Site BBDA 1A (Excavation)



Figures 5a: BBDA 2 Sample Locations

Source: AMEC 2012b, Fig 1-3



Source: AMEC 2012b, Fig 3-2

**Figure 5b: Estimated Horizontal and Vertical Extent of Soil and Debris to be Removed at Site BBDA 2**

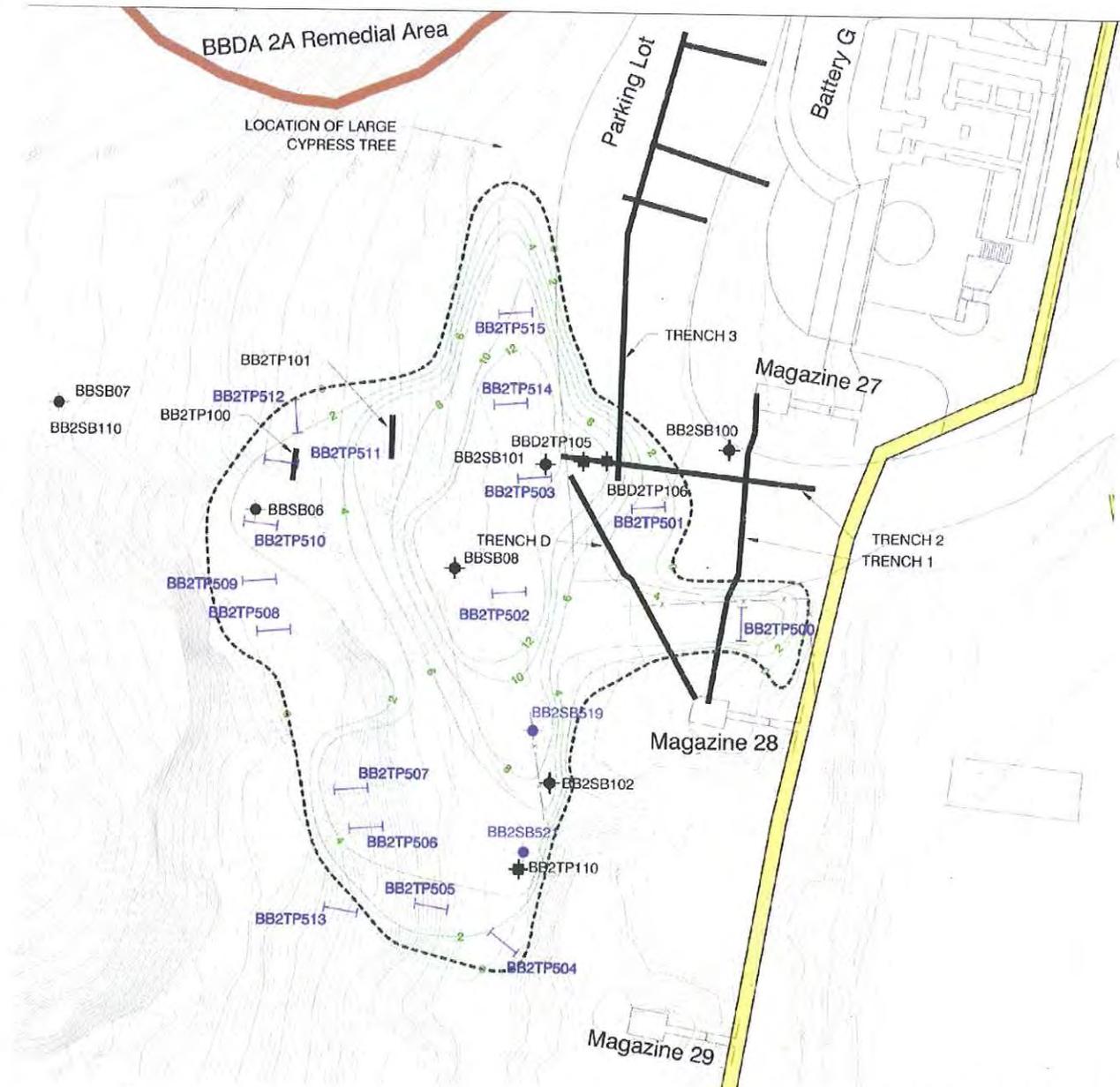


Figure 6: Preferred Remedial Alternative Site BBDA 2 (Excavation)

Source: AMEC 2011b, Fig 6-1

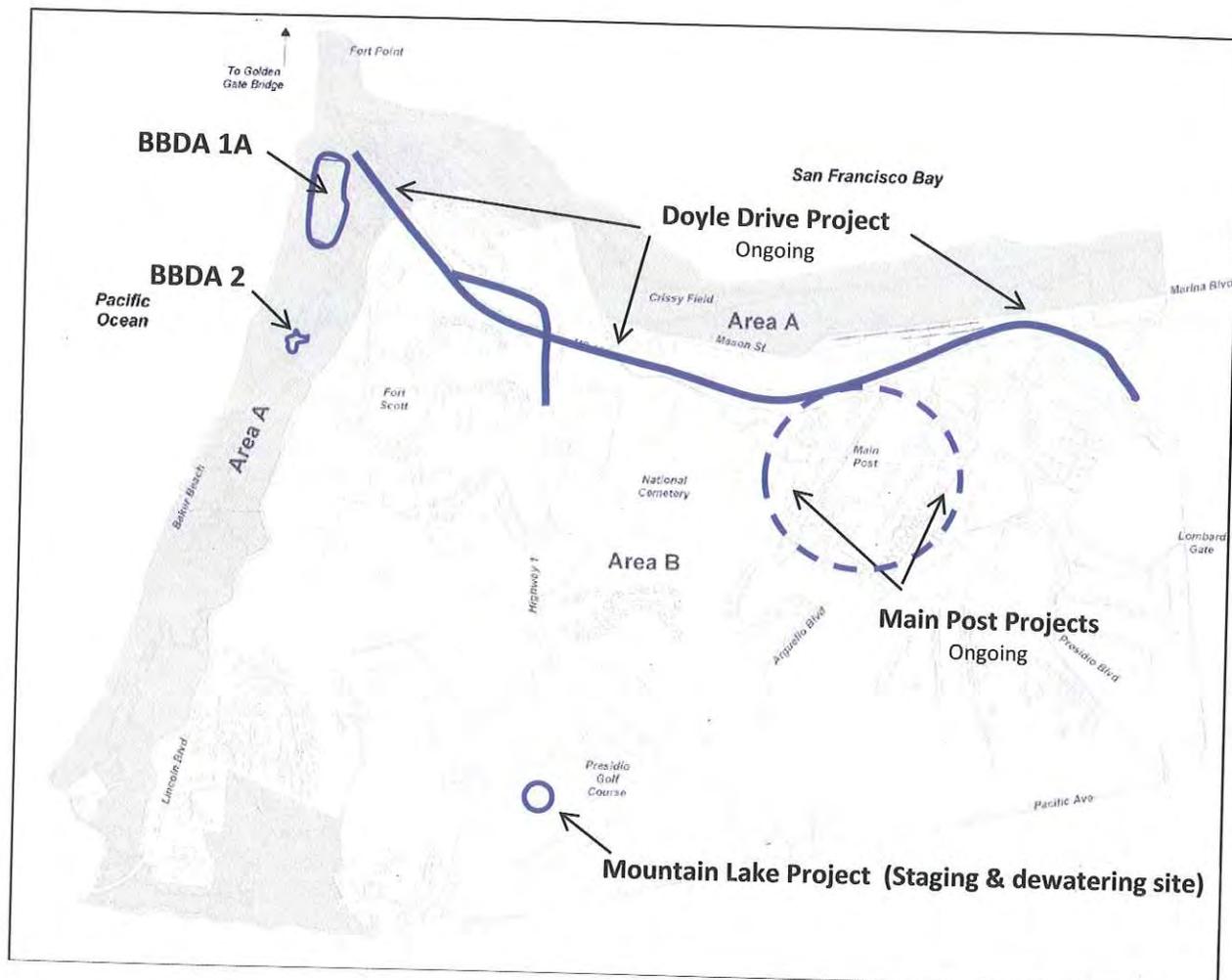


Figure 7: Cumulative Projects 2013

Base Map Source: AMEC 2012a