

**FINAL  
IMPLEMENTATION REPORT FOR LAND USE CONTROLS  
AUDIT RECOMMENDATIONS**

**CONDUCT A FIVE-YEAR REVIEW AND COMPLETE  
RECOMMENDATIONS FROM LAND USE CONTROL  
IMPLEMENTATION PLAN AUDIT**

**at**

**FORMER CAMP ELLIOTT, TIERRASANTA  
SAN DIEGO, CALIFORNIA**

**FUDS Project No. J09CA006701**

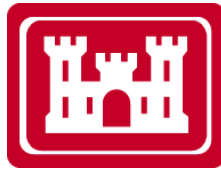
**and**

**FORMER CAMP ELLIOTT, MISSION TRAILS  
SAN DIEGO, CALIFORNIA**

**FUDS Project No. J09CA006702**

*Submitted to:*

**U.S. Army Corps of Engineers, Los Angeles District**



*Prepared by:*

**BSX, LLC**

**3601 C Street, Suite 1000-37**

**Anchorage, Alaska 99503**

**December 2020**

---

Contract No. W912PL-17-D-0024  
Task Orders W912PL19F0041 and W912PL19F0042

*The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other documentation.*

This page intentionally left blank.

## TABLE OF CONTENTS

<b>TABLE OF CONTENTS .....</b>	<b>i</b>
<b>ACRONYMS AND ABBREVIATIONS.....</b>	<b>ii</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
<b>1.1 Site Description.....</b>	<b>1</b>
<b>1.2 Site History.....</b>	<b>1</b>
<b>1.3 Current and Anticipated Future Land Use .....</b>	<b>2</b>
<b>1.4 Previous Investigations .....</b>	<b>3</b>
<b>1.5 Record of Decision.....</b>	<b>4</b>
<b>2.0 LAND USE CONTROLS.....</b>	<b>6</b>
<b>2.1 Description .....</b>	<b>6</b>
<b>2.2 Objective of Existing Land Use Controls.....</b>	<b>6</b>
<b>2.3 2018 Land Use Control Audit.....</b>	<b>6</b>
<b>2.4 Implementation of Recommendations.....</b>	<b>7</b>
<b>2.4.1 Warning/Information Signage in Open Spaces.....</b>	<b>7</b>
<b>2.4.2 Public/Community Education/Awareness.....</b>	<b>8</b>
<b>2.4.3 Notification of individuals potentially contacting Munitions and Explosives of Concern.....</b>	<b>12</b>
<b>2.4.4 Establishment of Document Repositories .....</b>	<b>13</b>
<b>3.0 REFERENCES.....</b>	<b>15</b>

### List of Figures

Figure 1 Former Camp Elliott, Tierrasanta and Mission Trails Site Layout

### List of Tables

Table 1 Documents Provided to Repositories

### Appendices

Appendix A 2018 Land Use Control Audit  
Appendix B Fact Sheets  
Appendix C Updated Websites

## ACRONYMS AND ABBREVIATIONS

BSX	BSX, LLC
CESPK	United States Army Corps of Engineers, Sacramento District
CESPL	United States Army Corps of Engineers, Los Angeles District
DENIX	Department of Defense Environment, Safety and Occupational Health Network and Information Exchange
DoD	Department of Defense
DSD	Development Services Department
EODMU3	Explosive Ordnance Disposal Mobile Unit 3
FUDS	Formerly Used Defense Site
GIS	Geographic Information System
HE	High Explosive
Jacobs	Jacobs Engineering Group
LUC	Land Use Control
LUCIP	Land Use Control Implementation Plan
MCAS	Marine Corps Air Station
MEC	Munitions and Explosives of Concern
Mission Trails	Former Camp Elliott, Mission Trails
mm	Millimeter
MTRP	Mission Trails Regional Park
POC	Point of Contact
ROD	Record of Decision
SDUSD	San Diego Unified School District
TCC	Tierrasanta Community Council
Tierrasanta	Former Camp Elliott, Tierrasanta
U.S.	United States
USACE	United States Army Corps of Engineers
UXO	Unexploded Ordnance

## 1.0 INTRODUCTION

This Implementation Report has been developed to summarize the implementation of the recommendations from the Land Use Control (LUC) Audit for the Former Camp Elliott, Tierrasanta (Tierrasanta) and the Former Camp Elliott, Mission Trails (Mission Trails) Formerly Used Defense Sites (FUDS). Tierrasanta has been assigned FUDS Project Number J09CA006701, and Mission Trails has been assigned FUDS Project Number J09CA006702. This Implementation Report is required by Task Orders W912PL19F0041 and W912PL19F0042, issued under Contract Number W912PL-17-D-0024, for Mission Trails and Tierrasanta, respectively. The Contract was awarded by the United States (U.S.) Army Corps of Engineers (USACE), Los Angeles District (CESPL). The Task Order Period of Performance is May 2019 through May 2022.

### 1.1 Site Description

Tierrasanta and Mission Trails are in the eastern portion of the City of San Diego, San Diego County, California.

Tierrasanta consists of approximately 1,897 acres and is bounded on the north by State Route 52; on the west by Interstate 15; on the south by Friars Road, Mission Gorge Road and the San Diego River; and on the east by Mission Trails FUDS and Mission Trails Regional Park (MTRP) (**Figure 1**). Since the early 1970s, the community of Tierrasanta has been an active suburb of San Diego. The Tierrasanta community was founded in 1971 and was fully built out in the early 1990s.

Mission Trails consists of approximately 2,100 acres and is located in the northeastern portion of the City of San Diego, California. It is bounded on the north by State Route 52, on the west by Tierrasanta, on the south by the San Diego River and Mission Gorge Road, and on the northeast by the City of Santee. Mission Trails is entirely contained within the MTRP (**Figure 1**). The site is currently owned by the City of San Diego.

### 1.2 Site History

Camp Elliott became operational during the World War I period when the U.S. used it for artillery and machine gun training. During World War II, the area was used for weapons training and practice with a variety of weapons. In 1941, the U.S. Navy obtained 30,500 acres for Camp Elliott and made it the home of the Fleet Marine Force Training Center, West Coast; the Troop Training Unit, Amphibious Training Command, Pacific Fleet; and other commands. Nearly 90 percent of all personnel stationed at Camp Elliott were attached to Training Center organizations. Camp Elliott contained three permanent subsidiary camps, four bivouac areas, and 41 combat or firing ranges. The site was used for tank and parachute training and infantry, scout, mortar, and sniper schooling until 1944.

Camp Elliott was also used by the U.S. Marines for weapon and training practice during World War II. Weapons used on the ranges included every weapon used by the Marines at the time from .22 caliber rifles to 155 millimeter (mm) field artillery pieces, as well as all types of demolition materials, mines, and explosives.

In 1944, the Marines relocated to Camp Pendleton, and the area passed back to Navy control as the Navy Training and Distribution Center, which operated until 1946. The Army had jurisdiction over the land from 1946 to 1947, but the land was not used during that year. The Navy Retraining Command was then established there until 1960.

In 1960, Camp Elliott was closed, and 7,710 acres were transferred to Miramar Naval Air Station (now Marine Corps Air Station [MCAS] Miramar), and 2,961 acres were transferred to the Air Force. In 1961, the Navy reported 13,277 acres as excess to the General Services Administration for disposal. During the 1960s the land was disposed through land sales, grants, and exchanges with the City of San Diego, the San Diego Unified School District (SDUSD), developers, and other private parties. The community of Tierrasanta was developed on portions of this land. In October 1970, the Tierrasanta master planned community subdivision was formally opened. Approximately 1,200 single-family homes had been sold eight months later. Today, the Tierrasanta community is home to over 32,000 residents and 10,947 households (Point2, 2020); small to medium commercial buildings; eight primary and secondary schools; the City of San Diego Library, Tierrasanta Branch; the Tierrasanta Recreation Center; open space areas; and Lincoln Military Housing, Santo Terrace – Murphy Canyon (MCAS Miramar). Now at build-out, the vast majority of developed land in Tierrasanta is devoted to residential uses.

The City of San Diego began preparing for a regional park in the 1960s. The 2,100 acres that comprised Mission Trails was conveyed to the City of San Diego by quitclaim deed on 10 January 1964. This deed restricted the use of the land to historic monument/public recreational purposes for 20 years. With owned land and land acquired from the former Camp Elliott, the city began the development of the MTRP. Established in 1974, the MTRP is one of the largest urban parks in the U.S.

Most of Tierrasanta was used as artillery and tank ranges. Munitions used at the site ranged from 37mm to 155mm high explosive (HE) projectiles. Multiple clearance efforts have been conducted at the former Camp Elliott and included the Tierrasanta project area. In 1983, two boys were killed while playing with a 37mm projectile. Following this fatal accident, two major clearance efforts were conducted at Tierrasanta. One occurred in 1984 and included 326 acres, and the other occurred in 1985 and included approximately 322 acres. From November 1990 to May 1994, a third ordnance and subsurface clearance was conducted on approximately 1,900 acres of Tierrasanta. A brief summary of these clearance efforts is provided in **Section 1.4**.

Mission Trails, west of Fortuna Mountain, was used as an impact area. Munitions used in this area ranged from 37mm to 155mm HE projectiles. The areas east of Fortuna Mountain have been identified as maneuver and bivouac areas.

### **1.3 Current and Anticipated Future Land Use**

Tierrasanta is a planned residential neighborhood. As of 2020, the Tierrasanta community was home to 10,947 households (Point2, 2020), with single-family and multi-family dwellings; small to medium commercial facilities, eight primary and secondary schools, a library, open space areas, and Lincoln Military Housing. There is no indication that the land use will change in the future.

Mission Trails is entirely contained within MTRP. The park is home to populations of snakes, mountain lions, coyotes, rabbits, various waterfowl, foxes, and other animal species, some of which have been designated as “sensitive species.” Many areas within the park are marked as off-limits to preserve their natural habitat and to promote their well-being.

The City of San Diego and San Diego County are the largest landowners of the MTRP, with smaller parcels owned by the San Diego County Water Authority and San Diego State University. MTRP is operated and maintained by the City of San Diego, Parks and Recreation Department, in close partnership with the MTRP Foundation. Eighty seven percent of the land is included within

the Multiple Species Conservation Program's Multi Habitat Planning Area (USACE, 2018a). There is no indication land use will change in the future.

#### 1.4 Previous Investigations

Multiple surveys, sweeps, and clearances have been conducted at the two sites. Ordnance and explosive-related items have been recovered during each effort. A summary of the efforts is provided below (USACE, 1988, 1999, 2003, and 2005).

- **1964** - The U.S. Navy conducted an ordnance clearance operation. No additional information is available on this clearance operation.
- **1965** - The U.S. Marine Corps conducted a clearance operation. No additional information is available on this clearance operation.
- **16 October to 30 November 1973** - The U.S. Army conducted a clearance operation that encompassed approximately 5,160 acres, which included much of Tierrasanta and all of Mission Trails. A total of 93 ordnance-related items were recovered on the surface. The highest areas of contamination included the western slope of Fortuna Mountain, areas around Villa Dominique, Villa Vista and eastern Tierrasanta Norte, and El Dorado Hills Canyon.
- **16 January through 27 April 1984** – This clearance effort was conducted following a fatal accident that occurred in 1983 within Tierrasanta, where two boys were killed, and one boy seriously injured, while playing with a 37mm projectile. The U.S. Navy Explosive Ordnance Disposal Mobile Unit Three (EODMU3) conducted a clearance operation that included a visual sweep of 326 acres and an electronic sweep of 13.4 acres. Ordnance-related items were recovered, including 147 items on the surface and 31 items in the subsurface. *Note:* the reference document also records 202 items located, of which 41 were HE and 161 were inert or expended.
- **15 July to 26 September 1985** – This clearance effort was conducted by the U.S. Navy EODMU3 and covered 322.41 acres. A total of 215 items were recovered. Of these items, 158 were located visually, 56 were located electronically, and one was turned in by a resident. Eight of the visually located items were live.
- **12 November to 12 December 1986** – Ordnance-related items were found in the surface and subsurface at Tierrasanta. These items ranged from assorted small arms up to 105mm projectiles.
- **29 November 1990 to 2 May 1994** – The USACE, following extensive brush removal, assessed approximately 1,900 acres in Tierrasanta with magnetometers and all surface and subsurface anomalies were removed. Over 4,800 items of ordnance (small arms and larger munitions); 26,300 pounds of ordnance debris; and 142,250 pounds of trash were located and removed.
- **17 July 1992 to 12 September 1995** – The USACE conducted a surface and subsurface clearance at Mission Trails. More than 620 ordnance items; 779 small arms; 27,869 pounds of ordnance debris; and 41,106 pounds of trash were located and removed.

## 1.5 Record of Decision

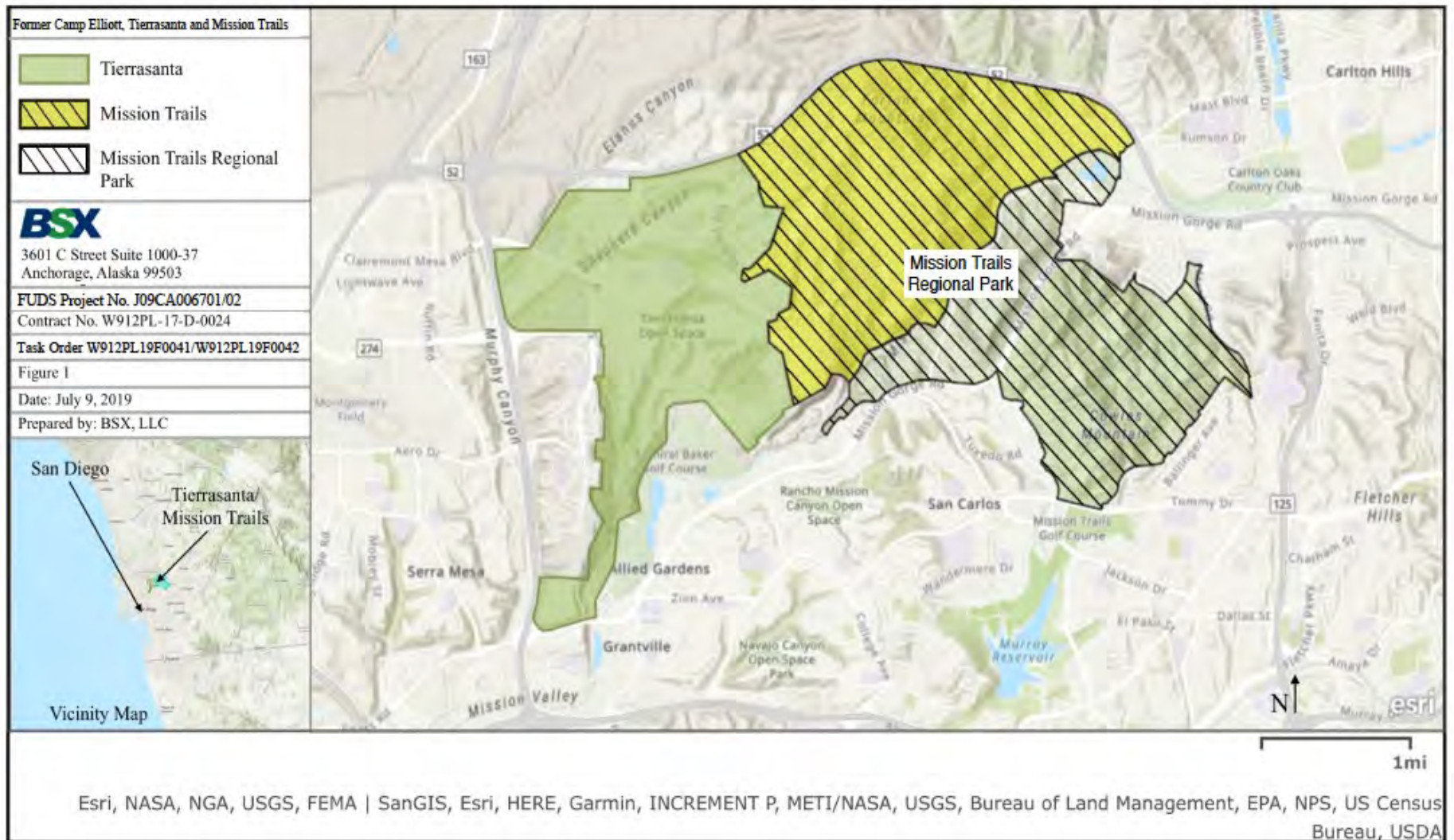
The Record of Decision (ROD) for the Former Camp Elliott was signed on 19 August 1988 and records the remedial action decision for the unexploded ordnance (UXO) and related debris contamination caused by previous Department of Defense (DoD)-related activities for six sub-areas of the Tierrasanta community. The ROD stated that the primary objective of the project was “to protect public health, safety, and general welfare” (DoD, 1988).

Several remedial alternatives were considered, and each alternative was evaluated for each sub-area based on the following parameters: public safety; economic feasibility; technical feasibility; environmental issues; local public opinion; and Federal, State, and local restrictions. The ROD described the selected alternatives:

- Ordnance clearance using electromagnetic ordnance locators after selective manual removal of vegetation, and
- Ordnance clearance using electromagnetic ordnance locators after prescribed burning.

The subsequent clearance work conducted for Tierrasanta also included areas of Mission Trails. Both sites eventually needed a public education effort, as required per the ROD. This was accomplished through the implementation of non-engineered LUCs (e.g., signs) (USACE, 2018a).





**Figure 1 Former Camp Elliott, Tierrasanta and Mission Trails Site Layout**

## **2.0 LAND USE CONTROLS**

### **2.1 Description**

LUCs are physical, legal, or administrative mechanisms that restrict the use of, limit access to, provide information or notification about, or minimize the potential exposure to contaminated property to reduce risk to human health and the environment. Physical mechanisms encompass a variety of engineered remedies to contain or reduce contamination and physical barriers to limit access to property, such as fences or signs. Institutional controls are a subset of LUCs and are primarily legal mechanisms imposed to ensure the continued effectiveness of land use restrictions imposed as part of a remedial decision.

Public awareness programs were first implemented at Tierrasanta and Mission Trails in 1984 and 1985. Alternatives evaluated in the Feasibility Study (USACE, 1988) included several public awareness programs. The preferred alternative recommended in the ROD consisted of a combination of alternatives for the various sub-areas of the project area. The ROD also stated that efforts would be made to expand educational programs on UXO within the community. Although not expressly defined as LUCs, these programs were precursors to the current project LUCs (USACE, 2018a).

### **2.2 Objective of Existing Land Use Controls**

The objective of the existing LUCs at Tierrasanta and Mission Trails is to minimize the exposure of residents, workers, and recreational users to munitions and explosives of concern (MEC) through the use of provided information and notification, and if encountered, to properly educate people on avoidance and reporting procedures.

This objective is met by implementing LUCs that warn of potential hazards and supply up-to-date information on how to recognize and report encounters with potential MEC items. Multiple efforts have been undertaken to clear the sites of MEC over the years. Recognizing that these clearances cannot provide an absolute guarantee of removing all MEC items, the USACE has implemented the following LUCs at Tierrasanta and Mission Trails:

- Warning/information signage in open spaces;
- Public/community education/awareness;
- Notification of individuals (e.g., contractors, homeowners) potentially contacting MEC; and
- Establishment of document repositories.

These LUCs are described in **Section 2.4**. A Land Use Control Implementation Plan (LUCIP) was finalized in July 2018, and describes the implementation of these LUCs (USACE, 2018a). As part of LUC maintenance, an annual inspection of the LUCs is required.

### **2.3 2018 Land Use Control Audit**

An audit was conducted by representatives from USACE, Sacramento District (CESPK), and CESPL from 28 to 30 August 2018 at Tierrasanta and Mission Trails (USACE, 2018b). The purpose of the audit was to determine if the LUCs at both sites were being implemented as intended to be protective of human health, safety, and the environment. The audit was guided by the Annual Land Use Control Audit Checklist, which was developed as part of the LUCIP (USACE, 2018a)

and was conducted through in-person and phone interviews, and a site visit. The audit concluded that none of the four LUCs were being implemented or maintained as intended. A copy of the audit is provided in **Appendix A**. The issues identified from the audit are discussed below in **Section 2.4**, along with the resulting recommendations. The implementation of the recommendations are also discussed.

## **2.4 Implementation of Recommendations**

### **2.4.1 Warning/Information Signage in Open Spaces**

**Description:** Warning signs at Tierrasanta and Mission Trails provide information about the history of the respective site, the type of MEC that may be found, and directions to call 911 if a suspected MEC item is found. Within the Tierrasanta community, warning signs are distributed throughout. Some signs are located at trailheads, and others are located along paths and in open areas where recreational users are likely to frequently visit. At MTRP, warning signs are located at trailheads throughout the park and are generally located along the perimeter of the park.

**Audit Findings:** The audit team met with Mr. Loren Boerboom, the Grounds Maintenance Manager with the City of San Diego, Parks and Recreation Department. According to Mr. Boerboom, of the signs installed at the site, 70% are in good condition and 30% are faded, damaged, or missing. The City of San Diego has a budgeted line item for signage, and the maintenance shop has the original template and extra signs provided by the FUDS program.

The audit team also met with Mr. Ryan Robertson, Senior Ranger at MTRP. At the time of the audit, the condition of the warning signs at MTRP was unknown. It was also unknown if the maintenance shop at MTRP had a template or funding to replace signs.

#### **Audit Recommendation:**

1. Follow up with the MTRP Park Ranger regarding the presence and condition of the signs across the park. Determine if the maintenance shop has a template of the warning signs for future replacement.
2. Identify USACE point of contact (POC) for contractor UXO awareness.

#### **Implementation of Audit Recommendation:**

1. BSX, LLC (BSX) contacted Mr. Robertson, Senior Ranger at MTRP, in October 2019 during initial coordination for the stakeholder meeting for the Fourth Five-Year Review, which is currently in progress. Mr. Robertson indicated at the November 2019 stakeholder meeting that he does not have a template for the LUC signs at the MTRP and he is uncertain who is responsible for reproducing and replacing the signs. We spoke once again with Mr. Robertson on 10 August 2020 to inquire if he had any new information regarding the signs or funding and he did not.

Additionally, BSX contacted Mr. Boerboom in April 2020 as part of the Five-Year Review process. He indicated his assessment of the signs in the Tierrasanta community is an ongoing process, and he is responsible for their maintenance, replacement, care and cleaning, as well as maintaining the vegetation in and around the signs. He has an inventory of approximately 20 signs presently that can be used to replace signs around the Tierrasanta community, as needed. When his inventory starts to run down, he is responsible for contacting the USACE for funding.

Mr. Mark Jones (CESPK) provided BSX with the coordinates for the warning signs locations at both FUDS. As part of the recurring Five-Year Review currently in progress, BSX inspected the signs from 06 and 07 November 2019 and 02 to 05 March 2020 and noted their condition. Several signs in the Tierrasanta community need immediate replacement, and several signs will need to be replaced within the next few years. The sign conditions log will be included in the Fourth Five-Year Report for Tierrasanta and Mission Trails.

2. The POC for contractor UXO awareness is Mr. Roland Tabije, CESPL FUDS Program Manager. Mr. Tabije can be contacted at [Roland.R.Tabije@usace.army.mil](mailto:Roland.R.Tabije@usace.army.mil) to schedule contractor UXO awareness training.

#### **2.4.2 Public/Community Education/Awareness**

**Description:** The LUCIP (USACE, 2018a) identified several outlets for posting LUC and general community education information related to the Tierrasanta and Mission Trails FUDS. These outlets include:

- USACE FUDS Program Website
- MTRP Visitor Center Display (in good condition at the time of the audit)
- Local Schools
- City of San Diego Websites
- Tierrasanta Community Council Website
- MTRP Website

##### *2.4.2.1 Local Schools*

**Audit Findings:** The audit team met with several members of the SDUSD who described a recent incident where MEC was uncovered by school district maintenance personnel at another FUDS. This incident created a situation where maintenance crews were refusing to work at schools located on FUDS. The members of the SDUSD requested USACE participate in a presentation with the Facilities Planning and Construction Department to educate maintenance crews on safety issues and procedures at schools located on FUDS properties. Additionally, USACE sent an email to principals of schools in the vicinity of Tierrasanta and Mission Trails in February 2018. The audit team indicated the response rate was very low, and it was determined that the better approach would be through the SDUSD.

#### **Audit Recommendation:**

1. Follow up with SDUSD personnel (Mr. Tom Calhoun or Mr. Paul Garcia) regarding co-presentations of education/awareness training to school workers, staff, and/or students.
2. Contact private schools that are not part of the SDUSD system directly.

#### **Implementation of Audit Recommendation:**

1. BSX contacted Mr. Garcia, Civil/Environmental Coordinator, and Mr. Samer Naji, Facilities Communications Supervisor, with the SDUSD to determine appropriate outreach for SDUSD schools located within the boundary of the Tierrasanta FUDS. Mr. Garcia and

Mr. Naji indicated that the students receive information packets at the beginning of each school year to take home, referred to as “Facts for Parents.” Mr. Garcia and Mr. Naji suggested that a handout about the FUDS could be included with the “Facts for Parents” packets. Mr. Garcia also expressed an interest in having in-school presentations. A fact sheet developed in August 2020 for the Tierrasanta and Mission Trails FUDS was provided to the SDUSD via Mr. Garcia and Mr. Calhoun, Lead Project Manager for Facilities Division, on 20 August 2020 with a request to include the fact sheet in the “Facts for Parents” packet. A suggestion was also made to Mr. Garcia to post the fact sheet to the SDUSD and City of San Diego websites. Mr. Garcia said that he would forward the fact sheet to the SDUSD Communications Department to see how they could include it with school handouts.

Mr. Garcia also indicated that SDUSD has a robust munitions awareness program for internal personnel as well as contractors. Briefings are provided prior to any construction activity. He said that he has used the 3Rs (Recognize, Retreat, Report) munitions guidance and develops Munitions Response Plans for SDUSD as needed. Mr. Garcia is the POC for SDUSD for environmental concerns (including UXO) and he works directly with all division directors within SDUSD to keep them informed.

As part of the Five-Year Review currently in progress for the sites, BSX interviewed Mr. Jeff Ring, Fire Captain and Bomb Squad Commander with the San Diego Fire Rescue Department. Mr. Ring indicated that although the San Diego Fire Rescue Department formerly provided annual munitions awareness training to the schools, neither SDUSD nor the schools are requesting the training. He added that the department would never say no if asked. Mr. Ring provided his email address to BSX for SDUSD which was forwarded to Mr. Garcia and Mr. Naji in July 2020 for future coordination of presentations. Mr. Garcia responded that he would coordinate the scheduling of the training with Mr. Naji once the students are back in the classrooms.

Additional munitions awareness resources can be found online by going to the CESPL website: <https://www.spl.usace.army.mil/Missions/Formerly-Used-Defense-Sites/> which provides a link to the DoD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) website. The DENIX “3Rs (Recognize, Retreat, Report) Explosives Safety Education Program” includes 3Rs posters, residential flyers, coloring books (all three of these are also available in Spanish), bookmarks, games, and a selection of videos, all of which are available to the general public. The DENIX website also includes links for parents, teachers, and police and firefighters. A link to the DENIX site can also be found on the FUDS website for Tierrasanta at:

<https://www.spl.usace.army.mil/Missions/Formerly-Used-Defense-Sites/Camp-Elliott/Tierrasanta/>

and for Mission Trails at:

<https://www.spl.usace.army.mil/Missions/Formerly-Used-Defense-Sites/Camp-Elliott/Mission-Trails/>.

Mr. Garcia was also interviewed for the Five-Year Review in progress. When asked about the munitions safety awareness training in the schools, he suggested direct communication with the school principals. Mr. Garcia provided BSX with a list of eight principals in early

May. Because of the Coronavirus pandemic, the schools were not in session and staff were working remotely. The principals were contacted via email. Of the eight principals queried, five responded. Responses include the following:

- a) **Farb Middle School:** Ms. Courtney Rizzo indicated they had not had a presentation in approximately 5 years. Annual presentations had been provided in the past. Then the presentations were provided every other year, and eventually they stopped altogether.
  - b) **Hancock Elementary School (Leased Navy Site):** Ms. Irene Hightower indicated that Hancock as well as the other schools in the Tierrasanta area are still receiving the UXO Safety presentations annually. She said they have the assemblies traditionally every spring. They conducted the assembly in May 2019 by Jacobs Engineering Group (Jacobs), the company hired by the NAVFAC to do the training. Jacobs was scheduled to provide the training in May 2020 but due to the Coronavirus pandemic, the training has been suspended until school eventually resumes. Ms. Rosa Esquivel ([Rosa.Esquivel@jacobs.com](mailto:Rosa.Esquivel@jacobs.com)) is the contact person at Jacobs. BSX contacted Ms. Esquivel and she confirmed that the presentations are provided annually to the two elementary schools within Navy property (Murphy Canyon), which include Miller and Hancock Elementary Schools.
  - c) **Miller Elementary School (Leased Navy Site):** Ms. Jennifer O'Connor indicated that the students receive the training every year. Jacobs provides the training.
  - d) **Serra High School:** Ms. Erica Renfree indicated that the students are not receiving the training.
  - e) **Tierrasanta Elementary School:** Ms. Sally Viavada grew up in Tierrasanta and experienced firsthand the death of a friend from a munitions item in the canyon. When she returned to Tierrasanta as a principal in 2015, she was surprised to find that the presentations no longer occurred. Ms. Viavada felt that returning to the annual safety presentations was a great idea since many of the kids may not even know the history of the community or the dangers they could encounter in the canyons and on the trails. However, due to the Coronavirus pandemic they do not yet know what new policies will be in place in the fall. She believes that assembly-like settings won't be reestablished for some time and suggested a video presentation.
2. The two private schools in the vicinity of Tierrasanta, Grace Christian Elementary School and Grace Christian High School, collectively identified as Grace Christian Schools, was contacted via email on several occasions without a response.

#### *2.4.2.2 Outreach with the Tierrasanta Community*

**Audit Finding:** Mr. Boerboom noted that informational materials are not available at the Tierrasanta Community Center. He indicated there are a lot of new residents in the community that do not know about the military history of the site. While he is unaware of any new development at Tierrasanta, worker education/awareness training should be provided for future site development.

#### **Audit Recommendation:**

1. Contact/follow up with the Tierrasanta Community Council (TCC) regarding coordination



for community outreach possibilities.

2. Provide education/awareness to maintenance crews and contractors on open space and trails.

#### **Implementation of Audit Recommendation:**

1. BSX contacted members of the TCC to discuss the potential for community outreach opportunities. Ms. Deanna Spehn, longtime TCC member and past President, and co-publisher and editor of the Tierra Times local community newspaper was contacted. She indicated that an updated fact sheet is appropriate for the Tierrasanta Community. BSX worked with Ms. Spehn to develop the fact sheet (**Appendix B**). Ms. Spehn indicated that she would publish the fact sheet in the October 2020 edition of the Tierra Times. The fact sheet was also provided electronically to the TCC for posting on their website. See **Section 2.4.2.3** for details on the website posting.
2. BSX interviewed Mr. Boerboom as part of the Five-Year Review in progress and found that he oversees the landscape maintenance contractor in Tierrasanta for the City of San Diego. Mr. Boerboom indicated that the maintenance contractor he oversees is aware of the potential hazards present. He speaks with the foreman daily to make sure that personnel are vigilant and aware. He also added that most of the crew that he oversees have been present for 20+ years and are aware of the potential hazards. When a new maintenance crew member is brought to the site (a very rare occurrence) he briefs them on the potential hazards and what actions to take should a suspect item be found. There is one other contractor for the open space and trail areas of Tierrasanta that the city hires every other year for brush clearing. Mr. Boerboom provided an email address for Mr. John Kleine and suggested BSX contact him regarding their munitions awareness training program. An email was submitted to Mr. Kleine on 02 September 2020 inquiring about potential munitions awareness training for the brush clearance contractor. Mr. Kleine referred BSX to Ms. Erika Ferreira, Administrative Services Program Coordinator, Parks and Recreation Department, who referred BSX to Mr. Paul Kilburg, Interim Deputy Director, Parks and Recreation Department. BSX spoke with Mr. Kilburg on 11 September 2020 and was informed there is no formal internal process by which the brush clearance contractor is provided munitions safety training. Mr. Kilburg stated that the contractor is familiar with the history of the FUDS and warning signs are posted throughout. Mr. Kilburg thought that having both electronic and hard copies of the updated fact sheets would be helpful to disseminate the safety awareness message to his internal staff and contractors. BSX will provide copies of the two fact sheets to Mr. Kilburg upon final approval of the general fact sheet.

#### *2.4.2.3 Websites and Social Media*

**Audit Findings:** The webpages for the City of San Diego, the Tierrasanta community, and the MTRP do not contain site history or information on UXO.

**Audit Recommendation:** Coordinate with points of contact for the City of San Diego, Tierrasanta community, etc., to update respective webpages on site history, UXO, and the 3Rs (Recognize, Report, Retreat).

**Implementation of Audit Recommendation:** BSX contacted Mr. Jan Whitacre with the TCC regarding updates to the TCC website. Mr. Whitacre referred BSX to Mr. Steve Muckle (newly elected TCC President) and Mr. Bob Lange with the TCC's Communications Committee. BSX provided TCC with a suggested website layout on 23 June 2020. BSX also provided Mr. Muckle with the updated project fact sheet, and he posted it to the TCC website on 24 August 2020. Additionally, Mr. Muckle posted an introduction to a Survey Monkey questionnaire regarding the FUDS sites (prepared by BSX), along with a link to the online survey. **Appendix C** provides a screenshot of TCC's updated website.

BSX also contacted Ms. Jennifer Morrissey, Executive Director of the MTRP Foundation, regarding updates to the MTRP website. BSX provided Ms. Morrissey with a suggested website layout on 26 June 2020. The MTRP Foundation completed their updates to the MTRP website on 17 July 2020. **Appendix C** provides a screenshot of the updated MTRP website. Additionally, the updated project fact sheet was provided to Ms. Morrissey on 20 August and posted to the website along with a link to the project Survey Monkey questionnaire. Ms. Morrissey said that she would also provide a link to the online survey in the MTRP September 2020 E-newsletter which will be sent out to more than 11,000 recipients.

BSX made several attempts to reach the POC for the City of San Diego website (Mr. Patric Bouteller, Email: [pbouteller@sandiego.gov](mailto:pbouteller@sandiego.gov) Phone: [619] 236-6597). However, no response was received, and the City of San Diego did not make any updates to their website.

Finally, the CESPL Public Affairs Office hosted the Survey Monkey link in a social media campaign, going live on 26 August 2020 on Facebook, Twitter, and Instagram. CESPL also posted the updated fact sheet to both the Tierrasanta and Mission Trails FUDS websites.

Survey Monkey is no longer approved for use by the CESPL.

#### **2.4.3 Notification of Individuals Potentially Contacting Munitions and Explosives of Concern**

**Description of LUC:** The City of San Diego Development Services Department (DSD) provides review, permit, inspection, and code enforcement services for private and public development projects throughout the city. As designed, this LUC would provide information to permit applicants (for example, contractors and homeowners) as part of the permit review process whenever a potential construction project is planned within the boundaries of the Tierrasanta or Mission Trails FUDS. This includes any type of intrusive, subsurface activity that may be conducted as part of the construction project.

**Audit Findings:** A phone interview was conducted on 10 September 2018 with Ms. Michelle Sokolowski, Deputy Director of the City of San Diego DSD. At the time of the interview, there was no evidence that information was being provided to permit applicants at Tierrasanta or Mission Trails. Additionally, a geographic information system (GIS) layer for these areas could not be located.

#### **Audit Recommendation:**

1. Work with the City of San Diego DSD, to understand the site history and purpose of the LUCs and assist with implementation as needed.



2. Determine the process by which the city/USACE is providing education/awareness to maintenance crews and contractors of open spaces and trails.

**Implementation of Audit Recommendation:**

1. BSX contacted Ms. Michelle Sokolowski, Deputy Director of the City of San Diego DSD, to follow up on the audit results and recommendations. Ms. Sokolowski referred BSX to Mr. Greg Hopkins, Assistant Director of the City of San Diego DSD. Mr. Hopkins then referred BSX to Ms. Myra Hermann, Senior Planner with the City of San Diego Planning Department. Ms. Hermann referred BSX back to Mr. Hopkins and Mr. Kilburg, for further assistance. Eventually, a conference call was conducted with USACE, DSD, and BSX on 19 August 2020. The purpose of the call was to determine how the USACE can assist DSD with informing new construction permit applicants of the potential UXO hazards present within the two FUDS. During the call, DSD indicated that a USACE website is the best solution to inform permit applicants of the potential hazards present at both FUDS. The website could post the fact sheets and any other resources deemed appropriate for permit applicants with regard to new construction. When a permit application is completed, the city will run the permit application through an internal screening process to determine if the location is within either of the footprints of the FUDS sites. If so, they will include a comment to the applicant in the permit application. The comment will include direction to the applicant to visit the USACE website for additional information. The USACE website should include the most recent fact sheets, USACE contact information, and any other pertinent information. It could also include information about UXO construction support. DSD indicated that providing a link to the USACE website would be the most effective way of remaining current with the latest updates from the USACE.

Subsequent to the call, BSX provided the following language for permit applicants whose project falls within the FUDS boundaries (as appropriate for either Tierrasanta or Mission Trails):

“Your project has been identified as being located within the boundaries of the former Camp Elliott Mission Trails (or Tierrasanta) Formerly Used Defense Site. It is possible that historical military munitions could be located within your project site. Please refer to the following website: <https://www.spl.usace.army.mil/Missions/Formerly-Used-Defense-Sites/Camp-Elliott/Mission-Trails> (or Tierrasanta)/ for additional information.”

The suggested permit comment text was approved by USACE and provided to DSD on 01 September 2020. BSX is also developing a Contractor Fact Sheet that will be posted to the two websites when finalized.

DSD has GIS data dated 2000. On 01 September 2020, BSX provided DSD with the ArcGIS link for the most current GIS data. DSD handles all permitting electronically and asked that they be provided with links to the USACE websites for the two FUDS.

#### **2.4.4 Establishment of Document Repositories**

**Description of LUC:** According to the LUCIP (USACE, 2018a), the document repository for Tierrasanta will be maintained at the Tierrasanta Branch Library and the document repository for

Mission Trails will be maintained at the MTRP Visitor and Interpretive Center.

**Audit Findings:** The audit team was notified that the repositories for Tierrasanta and Mission Trails were relocated to the San Diego Central Library. The audit team visited the San Diego Central Library to view the document repositories for Tierrasanta and Mission Trails; however, at the time of the audit, documents pertaining to the sites could not be found in Special Collections, Government Records, or in the staging area for overflow documents. A small collection of documents related to the early Comprehensive Environmental Response, Compensation, and Liability Act documents for Camp Elliott were found, but none specific to these sites. The audit team visited the Tierrasanta Branch Library, but it was closed for renovation at the time of the site visit.

At the time of the audit in August 2018, the Senior Ranger at MTRP offered to maintain documents in the library at the MTRP Visitor and Interpretive Center.

**Audit Recommendation:** Establish a local document repository (pursue at the MTRP Visitor Center Library) and correct outreach materials and site documents accordingly.

**Implementation of Audit Recommendation:** BSX visited the Tierrasanta Branch Library on 06 November 2019 following the stakeholder meeting for the Five-Year Review currently in progress. The purpose of the visit was to determine if a document repository was available at the library since the library was closed for renovations at the time of the audit in August 2018. The following documents were available for viewing:

- *Draft Public Involvement Plan, Tierrasanta and Mission Trails Project Areas, Former Camp Elliott, San Diego, California.*
- *Draft Second Five-Year Recurring Review for Former Camp Elliott, Tierrasanta, San Diego, California.*
- *Draft Second Five-Year Recurring Review for Former Camp Elliott, Mission Trails, San Diego, California.*

To establish the local document repository and correct the outreach materials and site documents, BSX printed and hand delivered documents as shown in **Table 1**. The documents listed in **Table 1** were delivered to both the Tierrasanta Library and the MTRP Visitor and Interpretive Center on 06 March 2020. Both repositories were updated per the *Final Implementation Plan for the LUC Audit Recommendations* (BSX, 2020).

**Table 1. Documents Provided to Repositories**

Document Name or Description	Date
<i>Feasibility Study of Remedial Action Alternatives for Conventional Explosive Ordnance Items on the Former Camp Elliott, San Diego, CA</i>	27 April 1988
<i>Record of Decision</i>	19 August 1988
<i>Final Ordnance Report Tierrasanta California</i>	February 1995
<i>Final Third Five-Year Review Report Former Camp Elliott – Tierrasanta and Former Camp Elliott – Mission Trails</i>	August 2016

### 3.0 REFERENCES

- BSX, 2020. *Final Implementation Plan for the LUC Audit Recommendations, Conduct Five-Year Review and Complete Recommendations from LUCIP Audit at Former Camp Elliott, Tierrasanta and Former Camp Elliott, Mission Trails, San Diego, California*. February.
- DoD, 1988. *Record of Decision – Former Camp Elliott, San Diego, California*. August 19.
- Point2, 2020. Tierrasanta Demographics.  
<https://www.point2homes.com/US/Neighborhood/CA/San-Diego/Tierrasanta-Demographics.html>. Accessed 10 July 2020.
- USACE, 1988. *Feasibility Study of Remedial Action Alternatives for Conventional Explosive Ordnance Items on the Former Camp Elliott, San Diego, CA*. 27 April.
- USACE, 1999. *Final Ordnance and Explosives Long Term Monitoring Report for the Tierrasanta Community and the Murphy Canyon Naval Housing Area, San Diego, CA*. November.
- USACE, 2003. *Ordnance and Explosive Recurring Review, Mission Trails Regional Park, San Diego, California*. May.
- USACE, 2005. *Archives Search Report Volume I and II – Camp Elliott, San Diego, CA. Property Number J09CA0067, Project Numbers 01, 02, 03 and 04*. September.
- USACE, 2018a. *Final Land Use Control Implementation Plan for Former Camp Elliott – Tierrasanta (FUDS #J09CA006701) and Former Camp Elliott – Mission Trails (FUDS #J09CA006702). San Diego, California*. July.
- USACE, 2018b. “Trip Report to Former Camp Elliott – Tierrasanta, FUDS Project Number J09CA006701 and Former Camp Elliott – Mission Trails, FUDS Project Number J09CA006702.” San Diego, California. 28 – 30 August.

**APPENDIX A**  
**2018 Land Use Control Audit**

**Trip Report: August 28-30, 2018 to Former Camp Elliott- Tierrasanta, FUDS Project Number J09CA006701; and Former Camp Elliott, Mission Trails (Mission Trails), FUDS Project Number J09CA006702 – San Diego, California.**

The objective of the visit was to perform an audit of the existing land use controls (LUCs) as described in the Former Camp Elliott – Tierrasanta and Mission Trails Land Use Control Implementation Plan (LUCIP), July 2018; and Third Five-Year Review Report, Mission Trails and Tierrasanta, September 2016.

The USACE has implemented the following LUCs at Tierrasanta and Mission Trails:

1. Warning/information signage in open spaces;
2. Public/community education/awareness;
3. Notification of individuals (*e.g.*, contractors, homeowners) potentially contacting MEC;
4. Establishment of document repositories

The audit was performed by Mark Jones, Toxicologist, USACE Sacramento District; and Karen Oden, Project Manager and Environmental Engineer, USACE Los Angeles District. The attached (Atch 1) Annual Land Use Control Audit Checklist (Appendix C LUCIP, July 2018) guided the following interviews and site visits. The audit was performed through phone and in-person interviews and site visits. The purpose of the discussions was to determine whether the land use controls are being implemented as intended to be protective of human health, safety, and the environment. The itinerary was followed but for the final two interviews with Deanna Spehn and Michelle Sokolowski.

Tuesday AM - August 28, 2018

- Travel from Sacramento and Tucson to meet at SD Airport

Tuesday PM - August 28, 2018

- Document Repositories (LUC #4)  
SD Central Branch Library 330 Park Blvd  
Tierrasanta Branch Library 4895 La Cuenta Drive
- SD Building Department - Development Services Department (DPD) 202 C Street (LUC #3)

Wednesday AM – August 29, 2018

- Mission Trails Regional Park (MTRP) Visitors Center (LUC #1,2,4)  
POC: Ryan Robertson, MTRP Ranger (9:30AM)

Wednesday PM – August 29, 2018

- SD Unified School District Facilities Planning & Construction 4860 Ruffner Street (LUC #2)  
POC: Kevin Ohlin, Assistant District Architect (1:30PM)  
Attendees: Tom Calhoun, Paul Garcia, Kevin Ohlin, Gary Stanford, Samer Naji

Thursday AM - August 30, 2018

- Tierrasanta Community Park and Recreation Center 11238 Clairemont Mesa Blvd (LUC #1,2,4)  
POC: Loren Boerboom, SD Parks Department Tierrasanta Community Open Space (9:00AM)
- POC: Deanna Spehn, Tierrasanta Community Council Representative and Open Space Committee Chair (10:00AM cancelled, phone interview pending)

Thursday PM – August 30, 2018

- SD Building Department - Development Services Department (DPD) 202 C Street (LUC #3)  
POC: Michelle Sokolowski, Deputy Director DSD (phone interview convened September 10th)
- Depart from SD Airport to Sacramento and Tucson

Additionally, phone interviews were conducted with SD Metro Arson Strike Team (MAST, joint fire/police; POC: Capt. Jeff Ring, phone interview convened August 31st), and MCAS Miramar EOD Branch (POC: Tony Richardson, EOD Branch OIC, phone interview convened August 27th). Outcome of these phone interviews was that there have been no reported unexploded ordnance incidences at either Mission Trails Regional Park or the Tierrasanta community. Officer Richardson subsequently provided a roll up of UXO incidents over the last several years, confirming that no incidents were within these areas over the last two years. It was also noted that neither the SD MAST nor MCAS Miramar follow the communications tree presented in the LUCIP. Rather incidents are reported to the DoD IMS and their own chain of command.

## **1. Warning/information signage in open spaces**

Mission Trails Regional Park (MTRP) – We observed the static display of UXO to be in good condition with information materials available to the public. The MTRP Ranger did not know whether all trailhead signage is in good condition or if any are in need of replacement. He is not aware of whether his maintenance shop has a template to replace signs or whether funding is available to make signs. He said he would ask maintenance. When asked whether bilingual signs could add another level of safety, he suggested creating a QR code with warning/information provided in several languages. Ranger mentioned upcoming construction of Ranger Station and two utility projects and asked who the USACE POC for contractor UXO awareness is. We did a random stop at a trailhead and no warning/information signage could be located. No other trailheads were observed.

**Recommendation:** Follow up with MTRP Ranger regarding presence and condition of signs across park; ability of maintenance shop to replace/create signs; identify USACE POC for contractors

Tierrasanta (TS) – POC said that 70% of signage is in good condition; 30% are faded or damaged/missing. SD city maintenance has budgeted line item for signage. Maintenance shop has original template and extra signs provided by FUDs program. No public information materials available in the TS Community Center but said outreach event would be good because there are a lot of new residents that do not know about the military history of the site. Not aware of any new development but identified a tree-cutting project this December that he feels should include worker education/awareness training.

**Recommendation:** Follow up with Deanna Spehn on TS community issues/outreach i.e. Tierra Times, TS Community Council, TS Open Space; consider event such as a poster board session; USACE or SD city provide education/awareness to maintenance crews and contractors on open space and trails.

## **2. Public/community education/awareness**

We met with several members of the SD Unified School District (Atch 2 sign-in sheet with contact information). A recent incident where MEC was uncovered by school district maintenance personnel at Lafayette (FUDS) has created a situation where maintenance crews refuse to work at schools located on FUDS. They requested USACE co-present with Facilities Planning and Construction to educate crews on safety issues and procedures at these schools (Atch 3 SDUSD UXO Awareness Briefing August 20, 2018). We said we would follow-up with FUDS Program Manager. We also discussed the outreach email that USACE sent to the principals of schools in the vicinity of MTRP and TS in February 2018. We indicated the response rate was very low and determined that the better approach was through the SDUSD (Samer Naji). We will also need to contact private schools that are not part of the SDUSD system



directly. They were very interested in having the USACE provide education/awareness training in the 12 district schools located on FUDS and will follow up with SDUSD Administrator. They asked that we contact Samer Naji, Facilities Communication Supervisor, with future communications.

**Recommendations:** Follow up with Tom Calhoun or Paul Garcia regarding co-presentation (KO spoke with LG about this issue and he will contact). Action with SDUSD to get back to USACE on Administration's recommendation for education/awareness training. Coordinate with POC's for SD, TS and MTRP to update respective webpages on site history, UXO, and 3R's.

### **3. Notification of individuals (e.g., contractors, homeowners) potentially contacting MEC**

We were not able to talk with anyone at Department of Development Services (DSD) on either August 28 or 30<sup>th</sup> but had a subsequent phone interview on September 10<sup>th</sup> with the Deputy Director of DSD. She was aware of what information we wanted and had asked staff whether notification is provided by DSD to applicants of permits at these locations. At the time we spoke there was no evidence this is being done by her staff that process permit application and IT could not locate a GIS layer for these areas. She wants to rectify this to implement the LUC as intended. She will be in contact when she has more information.

**Recommendation:** Work with DSD to understand history and purpose of LUC and assist with implementation as needed.

### **4. Establishment of document repositories**

According to a Bristol employee, the Administrative Records (AR) for MTRP and TS were relocated to the SD Central Branch Library. At the central branch, we asked two librarians to assist with locating the AR. Neither were able to locate TS or MTRP documents in Special Collections, Government Records, or in the staging area for overflow documents. A small collection of documents related to the early CERCLA document at Camp Elliott were found but nothing specific to these sites. FUDs materials, documents, webpages identify the TS library as the document repository for TS and MTRP. A site visit to the TS library was unproductive as it is closed to the public for renovation. The MTRP Ranger offered to maintain documents in the library located at the MTRP Visitor Center. He suggested we contact the park librarian.

**Recommendations:** Establish AR for both sites and pursue locating at the MTRP Visitor Center Library. Correct outreach materials and documents accordingly.

**APPENDIX C**  
**ANNUAL LAND USE CONTROL AUDIT CHECKLIST**



**TIERRASANTA & MISSION TRAILS  
ANNUAL LAND USE CONTROL AUDIT CHECKLIST**

Annual Period: Jan 1 - Dec 31, 2018

Inspection Team/Affiliation: mark jouck, USACE & PK  
Karen Odell, USACE, SPL

Date of Inspection(s): Aug 28 - 30, 2018

Names of persons conducting audit: mark jouck, Toxicologist  
Karen Odell, Environmental Engineer, PM

Date of Record of Decision (ROD) or applicable decision document or amendment(s):

Record of Decision, former Camp Elliott,  
San Diego, CA 19 Aug 1988

1. Is funding for the LUC maintenance of LUCs available through the USACE and is it adequate to cover all the LUC maintenance required?

Y ☒ N

If no, explain why: Initially funding was provided  
by USACE to implement LUCs; however  
nothing <sup>since</sup> ~~was~~ available to maintain  
signage, educational materials, IR,  
notification brochures, outreach or

2. Are all warning signs readable, visible and in good condition?

Y ☒ N

If no, explain why: POC's at MTRP + TS did not know the condition of all signage. TS signs have been replaced in some locations. MTRP POC not aware of need or how to replace signage.

3. Does information on all distributed public education information effectively describe the procedures to avoid and report encounters with MEC items?

Y ☒ N

If no, explain why: (Y) MTRP static display of UYO + educ. materials are available + effective.  
(N) FS, librarians, and school district do not have public info displayed/available.

4. Have landowners been notified of LUC status in last year?

Y ☒ N

If no, explain why: no current outreach activities at TS

5. Have any land use changes or developments occurred that would necessitate the expansion or revision to the existing LUCs?

Y ☒ N Neither

If no, explain why: ATS or MTRP POC's identified new developments or land use changes

6. Does City of San Diego websites for Tierrasanta and Mission Trails Regional Park listed in Section 2.2.2.3 work correctly and is the LUC information provided to educate the user viewable?

Y ☒ N

If no, explain why: (Y) work correctly  
(N) No info regarding UYO or B.R.V.



7. Does Tierrasanta Community Council website for Tierrasanta work correctly and does the information provided adequately educate the user?

Y N

(Y) work correctly

If no, explain why:

(N) limited information on military history + UXO; nothing on BR's.

8. Have all local schools listed in Section 2.2.2.3 been offered a LUC briefing for students during the past year or has the school briefed student using the LUC information provided?

Y (N)

If no, explain why:

meeting at Wed PM with SDUSD served to offer an education/awareness briefing in the schools. SDUSD has action to take to Administration + get back to WSACE.

9. Has the County of San Diego Building Department provided LUC information to all projects proposed at Tierrasanta and Mission Trails Regional Park that applied for a building permit?

Y (N)

If no, explain why:

Action being taken by Deputy Director, BSA to implementation of LUC. address future

10. Has the San Diego Police Department responded to any reports of UXO in the last year at Tierrasanta or Mission Trails Regional Park?

Y (N)

If yes, how many, where and what type of MEC item(s) were found?

11. Has the military (Marine Corps Air Station Miramar) responded to any reports of UXO in the last year at Tierrasanta or Mission Trails Regional Park?

Y

☒ N

If yes, how many, where and what type of MEC item(s) were found? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

12. Has any condition been identified that is not captured in this checklist that can potentially impact the effectiveness of existing LUCs?

☒ Y

N

If yes, explain what the condition(s) is/are: \_\_\_\_\_

Note of the 4 LUCs are being  
implemented / maintained as intended.  
Recommendations included in Trip Report

Form completed by: Karen O'Connell  
Mark Jones

Date: 30 Aug 2018 -  
10 Sep 2018

meeting USACE + SDUSD Aug 29, 2018

Samir Naji SDUSD 619-548-3388 snaji@sand.

Karen Odch USACE 520-240-982.

Mark Jones USACE 916-557-6958

Tom Calhoun SDUSD 619-609-3437

Paul Garcia SDUSD 530-219-8935

KEVIN OUTLIN SDUSD 619 606 0589

GARY Stanford SDUSD 858 637 6280



# SDUSD UXO Awareness Briefing

**SDUSD Facilities Planning and Construction**  
**August 20, 2018**

**Tom Calhoun, CCM, LEED AP**  
**SDUSD FPC Lead PM**



## SDUSD UXO Briefing

Purpose and Scope

Objectives

Acronyms and Definitions

Site History

MEC Terminology

UXO Characteristics

UXO Safety Procedures

Reporting Procedures

## UXO – How Do I Protect Myself?

If you discover or think you have discovered a UXO item the best way to protect yourself and your coworkers is **do not touch or disturb it**.

Remember the “3 Rs”



- **RECOGNIZE:** Recognize when you may have encountered a munition (UXO or DMM).
- **RETREAT:** Do not touch, move or disturb it, but carefully leave the area.
- **REPORT:** Immediately leave the area and report the suspected item in accordance with the established project / SDUSD procedures.



- The Purpose of this briefing is to **minimize the munitions risk to personnel** working within the Camp Elliott Formerly Used Defense Site.
- **Describe procedures** that apply to all District personnel and their contractors or subcontractors performing site work or visiting the Camp Elliott Formerly Used Defense Site.
- **This briefing is not intended to teach personnel how to handle UXO or Munitions of Explosive Concern**

**Linda Vista Valley Auxiliary Field FUDS****Procedure – Pre-con contractor briefing, pre-con surveys, and monitoring**

Schools within area:

- Hage ES
- Walker ES
- Wangenheim MS

**Rosedale Field and Dive Bombing Target FUDS****Procedure – Pre-con contractor briefing, pre-con surveys, and monitoring**

Schools within area:

- Lafayette ES
- Lindbergh/Schweitzer ES
- Madison HS
- Sequoia ES

**Camp Elliott FUDS****Procedure – Pre-con contractor briefing**

Schools within area:

- DePortola MS
- Farb MS
- Kumeyaay ES
- Serra HS
- Tierrasanta ES
- Vista Grande ES







**Rosedale Field  
and Dive Bombing  
Target Area**







BD	Base Detonating
BIP	Blow in Place
<b>DMM</b>	<b>Discarded Military Munitions</b>
EOD	Explosive Ordnance Disposal
FFAR	Folding-Fin Aircraft Rocket
HE	High Explosives
HEI	High Explosives Incendiary
HEAT	High Explosive Anti-Tank
<b>MEC</b>	<b>Munitions and Explosives of Concern</b>
<b>MC</b>	<b>Munitions Constituents</b>
<b>MD</b>	<b>Munitions Debris</b>
MDAS	Material Documented As Safe
MDEH	Material Documented as an Explosive Hazard
MPPEH	Material Potentially Presenting an Explosive Hazard
SCAR	Sub-Caliber Aircraft Rocket
TP	Target Practice
<b>UXO</b>	<b>Unexploded Ordnance</b>
WP	White Phosphorous



## What is MEC?

**Munitions and Explosives of Concern (MEC):** Specific categories of military munitions that may pose unique explosives safety risks.

MEC is comprised of the following subcategories:

**UXO – UneXploded Ordnance**

**DMM – Discarded Military Munitions**

**MC/MD – Munitions Constituents/Munitions Debris**



## What is UXO?

**UneXploded Ordnance (UXO):** Items used (fired, thrown or dropped) for their intended purpose but failed to function as designed.



## What is DMM?

**Discarded Military Munitions (DMM):** Munitions that were never fired from a weapons system and were abandoned without proper disposal.



## What is MC?

**Munitions Constituents (MC):** Any material originating from UXO and DMM.

- Includes explosive and non-explosive materials, emission, and degradation or breakdown elements of such ordnance or munitions.
  - Chemically reactive materials (explosives)
    - Material present in sufficient concentration to constitute an explosive hazard (e.g., TNT greater than 10% in soil).
- Traditionally non-explosive materials (such as shell casings and fragmentation).

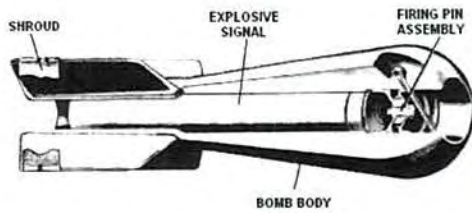
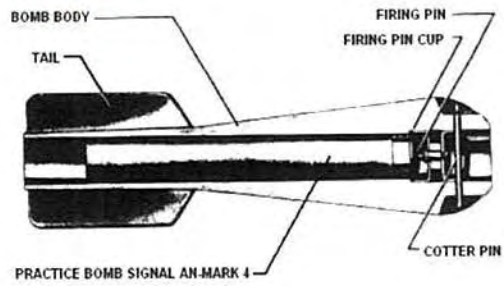


## What is MD?

**Munitions Debris (MD):** Consists of remnants of munitions remaining after munitions use, demilitarization or disposal.

- ✓ All munitions debris is considered an explosive hazard until it is inspected by a UXO Technician.







## 37mm – Caliber HE Projectile



## 155mm – Caliber Projectile



## UXO – Why didn't they function as designed?

- UXO are munitions that have failed to function as designed; commonly referred to as “Duds”.
- Typically munitions of this era experienced, on the average, **a 10% to 20% dud-ratio**.
- The reasons why munitions fail to function as designed are varied and many (Incorrect fuse settings, incorrect trajectory and/or impact area surface conditions)



## UXO — Why are they still dangerous?

- Fusing systems may be **partially armed** and your actions may be the final step in the arming/firing sequence.
- **Explosive fillers may react** with metal, other explosives, air, or chemicals in the earth to produce extremely sensitive explosive salts and compounds.
- Exposure to the elements may **degrade** as the stabilizing agents in the explosives which may now be more sensitive to movement, shock and friction.
- **Corrosion of internal components** may render a previously unarmed item to be armed and waiting for additional forces to fire the item.

✓ The age or condition of an ordnance item does not decrease its effectiveness to kill.

## UXO – How Do I Protect Myself?

- **DO NOT assume that the area you are entering/working is safe because it falls outside the mapped boundary of a historic range.** Many historical maps reviewed during archive searches contradict each other. Keep in mind that these were training ranges, which means personnel using these ranges were in many cases, not experts, and were attempting to hit the target. High percentage of munitions did not hit their intended target.
- **DO NOT assume that since you have performed work on the site previously, that a new task within the same area will not need to be assessed before execution.** Hazards differ in accordance with actions performed within the same area and may require escort or additional engineering controls to perform. It is for this reason that communication is so important in this process.

## UXO – How Do I Protect Myself?

### General MEC Safety Precautions

- **DO NOT** move a MEC item in an attempt to make a positive identification. Visually examine the suspect item and note markings and other external features such as shape, size, and external fittings and report in accordance with reporting procedures.
- **DO NOT** depress plungers, turn vanes, rotate spindles, levers, setting rings or other external fittings on munitions items. Such actions may arm or activate the item.
- **DO NOT** attempt to remove any fuse(s) from munitions. Do not dismantle or strip components from any MEC items.
- **DO NOT** remove MEC items from the site for use as souvenirs/training aids.
- **DO NOT** rely on the color coding of MEC for positive identification of a munitions filler. Munitions are color-coded to identify specific filler/hazards. However, munitions having incomplete or improper color codes have been encountered. Exposure to the elements can cause the markings to fade or change to another color



## Response:

- Clearly mark the item for avoidance, note the location, take photo, provide GPS coordinate, if possible.
- Evacuate personnel 250 feet away from item.
- Contact the following, in order:
  - **San Diego Metro Arson Strike Team (MAST) – 911**
  - **Your Supervisor**
  - **Tom Calhoun or Paul Garcia**
  - **Let SDUSD Public Information Office handle media inquiries**

## Questions?

## **APPENDIX B**

### **Fact Sheets**

# Former Camp Elliott, Tierrasanta and Mission Trails

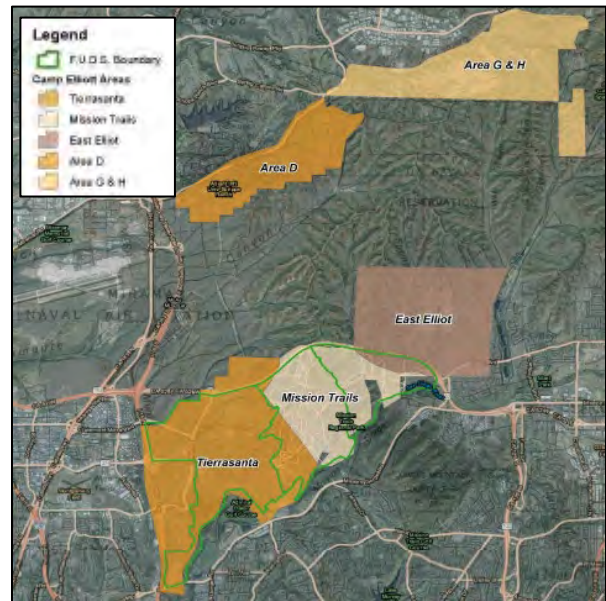
## Formerly Used Defense Sites

The Tierrasanta community and the northern portion of the Mission Trails Regional Park (MTRP) were once part of the former Camp Elliott, used by the U.S. Marine Corps (USMC) for artillery, anti-aircraft, and machine gun training. The munitions used ranged from 37 millimeter (mm) high explosive (HE) to 155mm HE and shrapnel projectiles.

Military use of Camp Elliott began in 1917 and continued to 1960. In 1961, the Navy declared 15,000 acres of the former Camp Elliott, including the area that became the Tierrasanta community and MTRP, to be excess land. This land was sold over several years by the General Services Administration to real estate developers and private individuals. Additionally, property was transferred to local municipalities. The remainder of Camp Elliott was retained by the military and is part of Marine Corps Air Station Miramar.

Portions of the former Camp Elliott have been subject to several clearance actions, including one in 1964 by the U.S. Navy, one in 1965 by the USMC, and one in 1973 by the U.S. Army. Even after the multiple surface clearances, two boys from the Tierrasanta community were killed by accidental detonation of a 37mm HE projectile in 1983. Additional investigations have been conducted at the former Camp Elliott since 1984 through the Formerly Used Defense Site (FUDS) Program. Since that time, the former Camp Elliott has been divided into four FUDS project areas: Tierrasanta (comprises the Tierrasanta community); Mission Trails (comprises the northern portion of MTRP); East Elliott; and Areas D, G, and H.

Even though multiple surface and subsurface clearances have been performed, there is still a potential for encountering munitions and explosives of concern (MEC) in the Tierrasanta community and MTRP. While the chances of encountering unexploded ordnance or MEC items are slim, the risk does exist and you should be wary of any type of old metal you might find within the Tierrasanta community and the MTRP. Protect yourself, your family, your friends, and your community in the unlikely event you encounter potential munitions, and learn and follow the **3Rs**:



### Recognize

Recognize when you may have encountered a munition. Do not touch or pick up suspicious items, whether they are whole or in fragments.

### Retreat

Mark a location near the item and carefully move away on the same path you entered – do not run.

### Report

**Call 911.** Notify local law enforcement that you found a suspect ordnance item. Tell them what you saw and where you saw it.

Currently, the U.S. Army Corps of Engineers, Los Angeles District, is performing a Five-Year Review of the former Camp Elliott for Tierrasanta and Mission Trails to evaluate whether previously implemented munitions response actions continue to minimize explosives safety risks and remain protective of human health and safety and the environment. Please visit <https://www.surveymonkey.com/r/6LS7CCV> if you would like to participate in a brief survey to provide input for the Five-Year Review. The survey will be available through October 31, 2020.

*Additional information about the former Camp Elliott can be found at:*

<https://www.spl.usace.army.mil/Missions/Formerly-Used-Defense-Sites/Camp-Elliott/>

and the information repositories:

**Tierrasanta Branch Library**  
4985 La Cuenta Drive  
San Diego, CA 92124

**Mission Trails Regional Park Visitor Center**  
One Father Junipero Serra Trail  
San Diego, CA 92119



**US Army Corps  
of Engineers**  
Los Angeles District



## Additional Information for Contractors and Homeowners

Former Camp Elliott,  
Tierrasanta and Mission  
Trails FUDS  
San Diego, CA

This fact sheet has been developed to provide additional information to the contractor and homeowner regarding potential historical military munitions that could remain in the subsurface at the former Camp Elliott, Tierrasanta and Mission Trails Formerly Used Defense Sites (FUDS). Former Camp Elliott, now known as the Tierrasanta community and Mission Trails Regional Park (MTRP) (refer to Figure 1), operated as a tank, anti-tank, and artillery training/practice range from World War I to the Korean War.

Since the 1980s, the U.S. Army Corps of Engineers (USACE) has conducted extensive ordnance investigations and cleanup efforts at the former Camp Elliott.

### Suspicious items can be encountered while:

- \* Installing underground pools;
- \* Installing posts for decking and fencing projects;
- \* Digging foundations;
- \* Excavating and installing utilities (e.g., cables, piping); and
- \* Any other ground disturbing activity.

While the chances of encountering old shells, mortars, and other munitions are slim, you should be cautious of any type of old metal object you may find in the area. Regardless of age, ordnance can still be explosive. With time, these items can become more sensitive and detonations could occur with even the slightest touch or vibration.

Homeowners, and contractors and their personnel should be aware of these hazards before digging in the Tierrasanta community or the MTRP. If any suspicious metal items are found, stop digging immediately, remove yourself and/or personnel from the immediate area, and call 911 to report the findings to local authorities.



These images show only a few of the types of ordnance that could be found at Tierrasanta and MTRP. Not all ordnance types are represented. ANY old metal object could be ordnance.



### Safety Counts!

If you suspect that you have encountered any military munitions, be sure to follow the 3Rs of explosives safety.

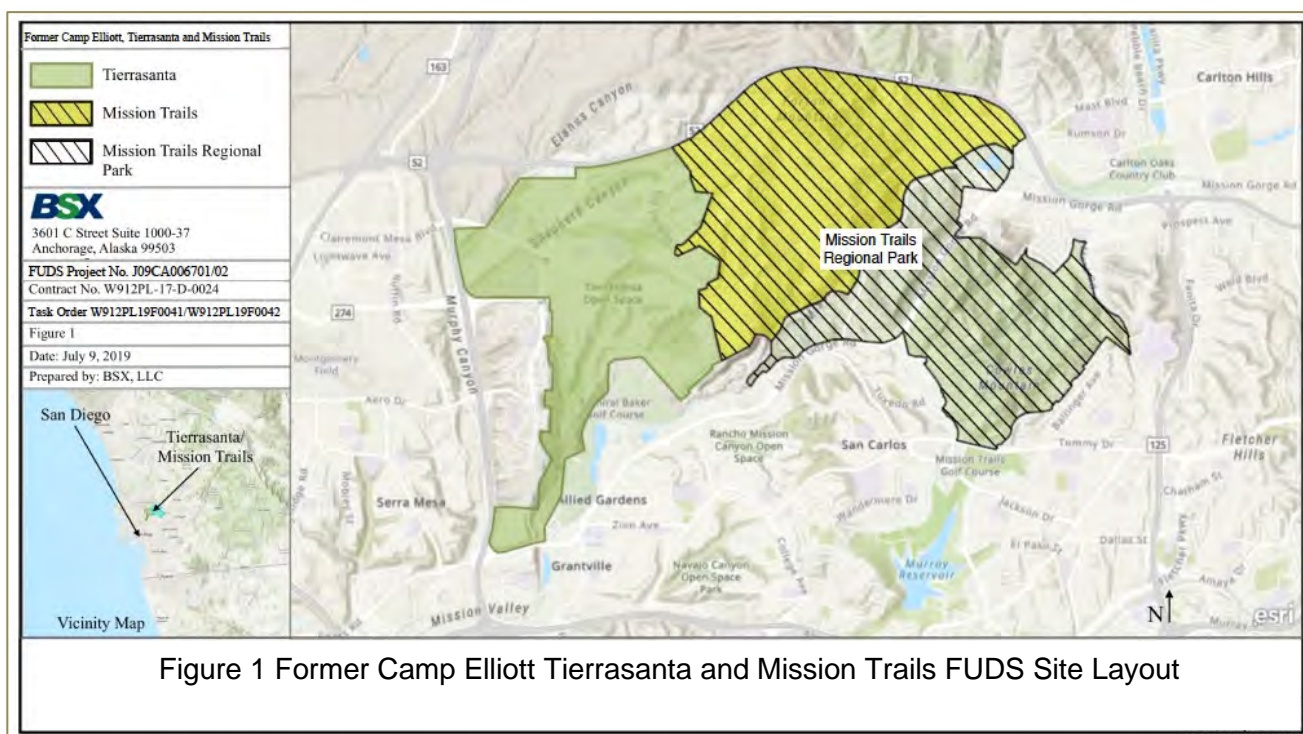


**Recognize** you may have encountered a munition.

**Retreat** from the munition. Do not touch or disturb it; instead move away carefully, walking out the same way you entered the area.

**Report** what you saw and where you saw it, by calling 911.





## Point of Contact



U.S. Army Corps of Engineers, Los Angeles District  
 Public Affairs Office  
 915 Wilshire Blvd.  
 Los Angeles, CA 90017  
 213-452-3921

Additional information about former Camp Elliott; the Tierrasanta and Mission Trails Formerly Used Defense Sites; and ordnance safety awareness can be found at the following USACE websites:

<https://www.spl.usace.army.mil/Missions/ and Formerly-Used-Defense-Sites/Camp-Elliott/Mission-Trails/>

and

<https://www.spl.usace.army.mil/Missions/Formerly-Used-Defense-Sites/Camp-Elliott/Tierrasanta/>

**APPENDIX C**  
**Updated Websites**



# Mission Trails Regional Park Safety Notice



Some areas of the **Mission Trails Regional Park** are located on what was once a military training/practice range called Camp Elliott. Although the U.S. Navy, the U.S. Marine Corps and the U.S. Army have conducted surface and subsurface investigations of this formerly used defense site (FUDS), it is important that the children and adults who visit and work in the Mission Trails Regional Park are aware that there is the potential to find unexploded ordnance (UXO) or Munitions and Explosives of Concern (MEC). Chances are you may never see UXO or MEC, but if you do, you should be careful. If you find any type of old metal containers in the park, it may be a UXO or MEC item. **All UXO is dangerous—the potential to injure or kill does not diminish with age or the item's size. If you find a suspect item:**



## Recognize - Do Not Touch!

Remember, UXO/MEC items were designed to hurt or kill. Changes in temperature, pressure or movement may trigger an explosion.



## Retreat - Mark the location!

If it is safe to do so, mark the area with a piece of cloth, hat, rock, etc. Carefully move away using the same path that you entered on—do not run.



## Report - Call 911!

Notify local law enforcement that you have found a UXO or MEC item. Tell them what you saw and where you saw it.

# REPORT AT ONCE!



*Photographic examples of UXO that may be encountered in Mission Trails Regional Park*





## The American Period

### Background

California's wealth had been noticed by the United States. By 1842, U.S. Navy ships were regularly cruising offshore, and by 1845 Americans were openly expounding the idea of a United States that stretched "from sea to shining sea." Mexican California came to an end within two years. After a series of battles, including Kearny's battle at San Pasqual, the United States laid claim to the territory.

By 1850, California was a state. Americans settling in California after 1848 brought their own ideas about land ownership. According to American tradition, they could settle on public land, build a farm, and then, after making some improvements, buy the land for a modest price. The Mexicans viewed them as squatters. During the American period, the land in and around Mission Trails Regional Park came under a variety of new uses, as well as new owners. Ranching, farming, mining, recreation, and military activities were initiated, but much of the land remained undeveloped

### Ranching and Farming

In 1885, the former mission lands were opened up for settlement and a number of ranches and farms were purchased in the area. One of the most notable tracts was Rancho Fanita, owned by the Scripps family; dairy farming was represented by the Edgemoor Dairy. Beans were regularly planted for years between Cowles Mountain and Lake Murray.

### Mining in Mission Gorge

Beginning in 1873, granite mines appeared in Mission Gorge. Light gray in color, the granodioritic rock extracted from these mines was used to construct roads, buildings, jetties, and dams. Blocks of granite from the Gorge were used in the construction of a breakwater in San Diego Bay and are still in place today. The family of Robert Waterman, Governor of California from 1887 to 1891, built the San Diego and Cuyamaca Eastern Railroad, which allowed the granite to be shipped economically from the mines. Modern mining industries, which provide sand, gravel, and decomposed granite products, evolved out of the early granite mining business. Many firms extracted sand and gravel on lands now part of Mission Trails Regional Park, including J.B. Stringfellow, the Kenneth Golden Company, H.G. Fenton, and the V.R. Dennis Company. In addition, the Morse Construction Company operated a dynamite magazine on park premises in the 1960s. Kumeyaay Lake and other nearby ponds are the by-products of these mining operations, created by the removal of rock materials in the late 1940s.

### Military Presence - *Information from US Army Corps of Engineers Los Angeles District Fact Sheets*

Military use of the land that has become the Fortuna area of Mission Trails Regional Park began in 1917 and continued to 1960 – from World War I to the Korean War. Most of the land was used for live-fire artillery and tank exercises by the U.S. Army from 1917 to 1919 and by the U.S. Marine Corps from 1941 to 1944. The munitions used ranged from 37 millimeter (mm) to 155 mm High Explosive and shrapnel projectiles. It is part of the former Camp Elliott Training Area which encompassed 30,500 acres of land including the Fortuna area of Mission Trails and extending north of SR52 through East Elliott and most of Marine Corps Air Station (MCAS) Miramar. With the establishment of Camp Pendleton for the Marine Corps, Camp Elliott was transferred to the Navy, and served as a Training and Distribution Center until 1960, when it was deactivated.

Nearly half of Camp Elliott was declared excess land in 1961, including the area that became the Tierrasanta community and Mission Trails Regional Park, and was sold over several years to real estate developers, private individuals, and government entities. The remainder of Camp Elliott was retained by the military and most is part of MCAS Miramar. The majority of the Fortuna area of Mission Trails Regional Park was transferred to the city of San Diego in January 1964. The deed restricted its use to historic monument/public recreational purposes for 20 years.

[Unexploded ordnance](#) was an unfortunate legacy of the military period. After Camp Elliott closed in 1960, the Navy and the Marine Corps cleared ordnance from portions of the former camp. In 1983 three children discovered a 37mm unexploded round in an open area near their Tierrasanta homes, and while playing with it the round detonated. This accident prompted action by the U.S. Navy and searches for unexploded ordnance in the area of the Tierrasanta community, extending into the southwest boundary of Mission Trails were conducted in 1984 and 1985. Additional searches and removal actions were conducted from 1992 through 1995 and the Corps of Engineers removed ordnance items, small arms, munitions debris and trash. The Fortuna area of Mission Trails is under Long-Term Management by the U.S. Army Corps of Engineers. The site is investigated every five years to evaluate if previous removal actions and remediation activities are still protective of human health and the environment.

[Learn more about unexploded ordnance](#)

### Water Issues

As San Diego grew, the need for a reliable water source became as critical to the City Fathers as it once had been to the Mission padres. In 1920, the San Diego River was the only river flowing through the city, so the choice for the source was limited. But where along the river to site a dam and just who owned the rights to the water was destined to be fought over throughout the decade and into the next. Two powerful San Diegans, Colonel Ed Fletcher, owner of the Cuyamaca Water Company which held title to a mile and a half of the San Diego River, and wealthy magnate John D. Spreckels, each championed different sides of the debate. Fletcher wanted to sell his water interests to the City for \$1,400,000 and argued that the best place for a new dam was below the old Mission Dam, on land he owned. Spreckels, represented by the City Attorney, was outraged, claiming that the City already held all of the river's water rights as established under Spanish law, which subsequently passed to Mexico and then to the United States. This view was later upheld by the County Superior Court and again in the Supreme Court. With regard to a dam site, Fletcher's opponents argued for an upriver location, at El Capitan, on El Cajon Mountain.

In 1924, in a special election citizens voted down a bond measure to construct the dam in Mission Gorge, but later that year approved a bond issue to construct the dam at El Capitan by a three-to-one margin. It was ten years before El Capitan Dam was finally built. In 1930, a second bond measure was put before the voters, who were asked to fund the construction of a dam one-half mile below the old Mission Dam - it too failed, and this time by an even greater margin than the first. If a dam had been built anywhere in Mission Gorge the 1920s or 30s, large portions of the land that became Mission Trails Regional Park would have disappeared beneath its waters. By the mid-1950s the area had become far too developed and populated to seriously consider a dam project, and by the 1960s it had become impossible.

### Recreational Uses


As San Diego grew, the back country along the San Diego River provided an outlet from stress and an opportunity to get away from city life. As late as the mid-1920s, enough unfenced land remained to allow unhindered treks all the way from the Cuyamaca foothills westward to the coast. Hunters, hikers, and naturalists alike shared this "wilderness" area so close to home. Climbing Cowles Mountain for the view from the top was a favorite local pastime, and for 40 years, from 1931 to 1971, San Diego State College freshman classes repainted the "S" (which stood for San Diego State) on the southwest side of the mountain.

More articles: 

The American Period

GO

**Mission Trails eNewsletter**




Receive information about MTRP programs, events, and news from around the park.

**Sign Up >**

Photo: David Cooksy

**Mission Trails Regional Park**



The park encompasses 7,220 acres of both natural and developed recreational acres. Its rugged hills, valleys, and open areas represent a San Diego prior to the landing of Cabrillo in San Diego Bay in 1542. **Read more >**

Photo: Chris Szwedo

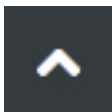
**MTRP Visitor Center**



One Father Junipero Serra Trail  
San Diego, CA 92119  
(619) 668-3281  
**mtrp@mtrp.org**

**Trail Maps · Directions**

Photo: Gerry Tietje





[5-Peak Challenge](#)[CAC/Task Force](#)[Master Plan](#)[MTRP Foundation](#)[DONATE](#)

## Unexploded Ordnance at Mission Trails

Warning signs, such as the one shown in the photo, have been installed in several locations in Mission Trails Regional Park (and throughout the neighboring Tierrasanta community). A [safety notice](#) is also available at trail kiosks in the park.



The sign reads:

### Mission Trails – Formerly Camp Elliott

This area of San Diego known as Mission Trails, once was a part of Camp Elliott. It was a 13,000 acre Marine Corps Training Camp used during World War II by the Second Marine Division for artillery and tank training in addition to other specialist training. In one period, at the height of the war, 50,000 officers and men were dispatched to combat zones from Camp Elliott in a little over a year. As part of their training, weapons ranging in size from 22 caliber rifles to 155 mm field artillery pieces were extensively fired in this area.

Salvage work has been done over the years to remove unexploded shells that might still exist. It is possible that some shell could surface due to natural erosion or other causes.


These shells which vary in size and shapes were fired over 40 years ago and may be rusty. They could still explode if mishandled.

**If you should discover any suspicious object DO NOT TOUCH IT: mark its location and call 911 immediately and wait for arrival of emergency crew**

For more information on the past military use of the area, please visit the [U.S. Army Corps of Engineers, Los Angeles District's website for the Camp Elliott project](#).

Information is also available at the [Visitor's Center](#), and at the Tierrasanta Library (4985 La Cuenta Drive, San Diego, CA 92124).

Mission Trails eNewsletter



Receive information about MTRP programs, events, and news from around the park.

Sign Up >

Photo: David Cooksy

Mission Trails Regional Park



The park encompasses 7,220 acres of both natural and developed recreational acres. Its rugged hills, valleys, and open areas represent a San Diego prior to the landing of Cabrillo in San Diego Bay in 1542. [Read more >](#)

Photo: Chris Szwedo

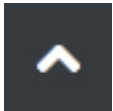
MTRP Visitor Center



One Father Junipero Serra Trail  
San Diego, CA 92119  
(619) 668-3281  
[mtrp@mtrp.org](mailto:mtrp@mtrp.org)

Trail Maps · Directions

Photo: Gerry Tietje





[Sign Up Now](#)

Tierrasanta Community Council  
Information Email List

### Categories

- 1 Annual Reports
- 2 Committees
- 3 Community Development Committee
- 4 Concerts in the Park
- 5 Important Community Information and Documents
- 6 Meetings
- 7 Miramar Marine Corps Air Station
- 8 Open Space
- 9 Public Notices
- 10 Tierrasanta Community Council
- 11 Tierrasanta Schools
- 12 Uncategorized

### ADVERTISE

The Tierrasanta Community Council is starting a new Community Partners section on its website.

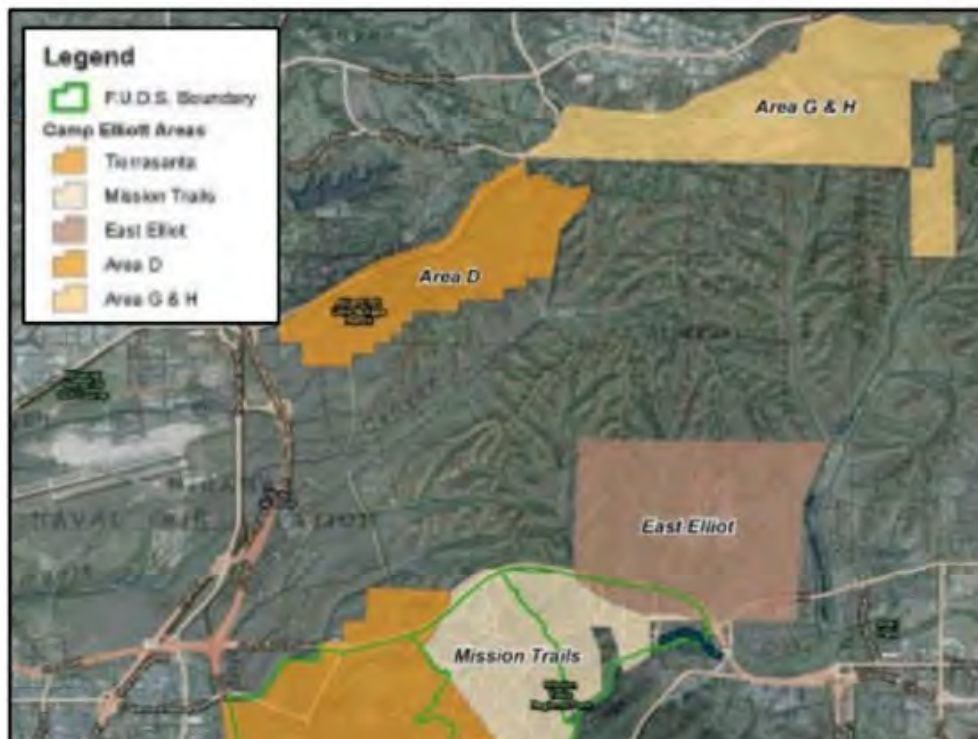
[Click here for details](#)

## Unexploded Ordnance in Tierrasanta

The Tierrasanta community and the northern portion of the Mission Trails Regional Park (MTRP) were once part of the former Camp Elliott, used by the U.S. Marine Corps (USMC) for artillery, anti-aircraft, and machine gun training. The munitions used ranged from 37 millimeter (mm) high explosive (HE) to 155mm HE and shrapnel projectiles.

Military use of Camp Elliott began in 1917 and continued to 1960. In 1961, the Navy declared 15,000 acres of the former Camp Elliott, including the area that became the Tierrasanta community and MTRP, to be excess land. This land was sold over several years by the General Services Administration to real estate developers and private individuals. Additionally, property was transferred to local municipalities. The remainder of Camp Elliott was retained by the military and is part of Marine Corps Air Station Miramar.

Portions of the former Camp Elliott have been subject to several clearance actions, including one in 1964 by the U.S. Navy, one in 1965 by the USMC, and one in 1973 by the U.S. Army. Even after the multiple surface clearances, two boys from the Tierrasanta community were killed by accidental detonation of a 37mm HE projectile in 1963. Additional investigations have been conducted at the former Camp Elliott since 1984 through the Formerly Used Defense Site (FUDS) Program. Since that time, the former Camp Elliott has been divided into four FUDS project areas: Tierrasanta (comprises the Tierrasanta community); Mission Trails (comprises the northern portion of MTRP); East Elliott; and Areas D, G, and H.





Even though multiple surface and subsurface clearances have been performed, there is still a potential for encountering munitions and explosives of concern (MEC) in the Tierrasanta community and MTRP. While the chances of encountering unexploded ordnance or MEC items are slim, the risk does exist and you should be wary of any type of old metal you might find within the Tierrasanta community and the MTRP. Protect yourself, your family, your friends, and your community in the unlikely event you encounter potential munitions, and learn and follow the 3 Rs:

**Recognize:** when you may have encountered a munition. Do not touch or pick up suspicious items, whether they are whole or in fragments.

**Retreat:** Mark a location near the item and carefully move away on the same path you entered – do not run.

**Report:** Call 911. Notify local law enforcement that you found a suspect ordnance item. Tell them what you saw and where you saw it.

Warning signs, as shown in the photo below, have also been installed throughout the Tierrasanta community (and the neighboring Mission Trails Regional Park).



Currently, the U.S. Army Corps of Engineers, Los Angeles District, is performing a Five-Year Review of the former Camp Elliott for Tierrasanta and Mission Trails to evaluate whether previously implemented munitions response actions continue to minimize explosives safety risks and remain protective of human health and safety and the environment. Please visit <https://www.surveymonkey.com/r/6LS7CCV> if you would like to participate in a brief survey to provide input for the Five-Year Review. The survey will be available through October 31, 2020.

For more information on the past military use of the site, please visit the U.S. Army Corps of Engineers, Los Angeles District's website for the Camp Elliott project: <https://www.spl.usace.army.mil/Missions/Formerly-Used-Defense-Sites/Camp-Elliott/>.

Additional information is also available at these information repositories:

- Tierrasanta Library, 4965 La Cuenta Drive, San Diego, CA 92124
- Mission Trails Regional Park, 1 Father Junipero Serra Drive, San Diego, CA 92119