

Draft Final

Land Use Control Implementation Plan

for

Former Camp Elliott - Tierrasanta (FUDS #J09CA006701)

and

Former Camp Elliott - Mission Trails (FUDS #J09CA006702)

San Diego, California



June 2018

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ACRONYMS AND ABBREVIATIONS

ASR	Archives Search Report
CERCLA	Comprehensive Environmental Response, Compensation, and Liabilities Act
CFR	Code of Federal Regulations
CHE	chemical warfare materiel hazard evaluation
CWM	chemical warfare materiel
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DTSC	Department of Toxic Substances Control
EHE	explosive hazard evaluation
EOD	Explosive Ordnance Detachment
FUDS	Formerly Used Defense Sites
HHE	health hazard evaluation
IC	institutional control
INPR	Inventory Project Report
LUC	land use control
LUCIP	Land Use Control Implementation Plan
MC	Munitions Constituents
MCAS	Marine Corps Air Station
MEC	Munitions and Explosives of Concern
MMRP	Military Munitions Response Program
MRSPP	Munitions Response Site Priority Protocol
MTRP	Mission Trails Regional Park
NCP	National Contingency Plan
OE	ordnance and explosives
ROD	Record of Decision
SDCWA	San Diego County Water Authority
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UU/UE	Unlimited Use/Unrestricted Exposure
UXO	Unexploded Ordnance

EXECUTIVE SUMMARY

This Land Use Control Implementation Plan (LUCIP) describes the implementation of land use controls (LUCs) at two sites that are in the United States Army Corps of Engineering (USACE) Formerly Used Defense Sites (FUDS) program: former Camp Elliott-Project 01, Tierrasanta (Tierrasanta), FUDS Project Number J09CA006701; and former Camp Elliott-Project 02, Mission Trails (Mission Trails), FUDS Project Number J09CA006702.

These two sites are co-located in San Diego, San Diego County, California and were part of Camp Elliott, which was a military installation since World War I. Through the World War II years, the sites were extensively used as training ranges for all weapons systems that were used by the U.S. Marines Corps. Camp Elliott was closed in 1960 and through a series of exchanges, grants and sales, the property was eventually made available for private and public development. The Tierrasanta community was developed in 1970 and Mission Trails Regional Park development was initiated in the mid-1960's.

Four munition clearance sweeps were conducted prior to 1983. In December 1983, the two boys at the Tierrasanta community were killed when they were playing with an anti-tank shell. The event initiated four more munitions sweeps until 1994. The sites were included in the FUDS program with a Record of Decision (ROD) for Tierrasanta being signed in August 1988.

LUCs have been implemented at both sites to provide the residents of the Tierrasanta community and the recreational users of Mission Trails Regional Park information on the munitions and explosives of concern (MEC) risks and how to avoid and report MEC encounters. The LUCs chosen are:

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

These LUCs are maintained and audited annually by the USACE. The LUCs will remain in place until the site attains unlimited use/unrestricted exposure (UU/UE).

1.0 INTRODUCTION

The Defense Environmental Restoration Program (DERP) Manual (Department of Defense [DoD] 2012) recommends development of a Land Use Control and Implementation Plan (LUCIP) for sites where contamination is left in place. The purpose of this policy is for the selection and implementation of land use controls (LUCs) that minimize the potential for human exposure to site contaminants and hazards and protect the integrity of the selected remedy for current and future land use. LUCs are used to ensure that land use activities in the future remain compatible with the restrictions identified as a result of the environmental restoration process. Development, documentation, and maintenance of LUCs are consistent with management of environmental restoration sites in the DERP.

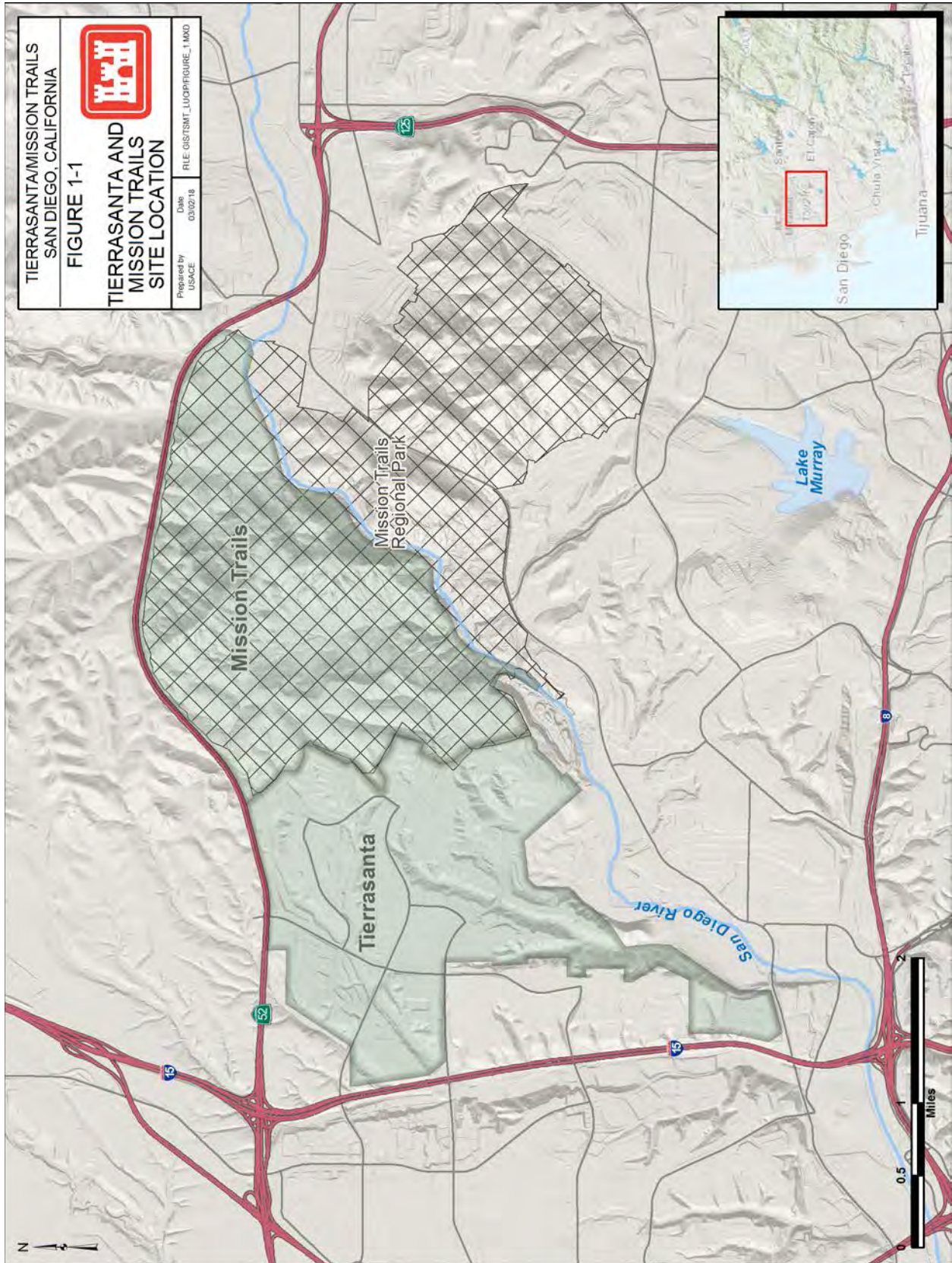
The U.S. Army Corps of Engineers (USACE) has prepared this LUCIP for two sites that are in the Formerly Used Defense Sites (FUDS) program: former Camp Elliott-Project 01, Tierrasanta (Tierrasanta), FUDS Project Number J09CA006701; and former Camp Elliott-Project 02, Mission Trails (Mission Trails), FUDS Project Number J09CA006702. These two adjacent sites are located in San Diego, California. This LUCIP describes all LUCs required at the Tierrasanta and Mission Trails project sites. This LUCIP is a management tool that explains the establishment of LUCs and documents and defines who shall be responsible for inspecting, enforcing, and maintaining LUCs.

LUCIP information will require periodic updates when existing site information and/or conditions change, or when the remedy changes and an existing LUC is impacted. Updates can also include the addition of new areas of concern within the existing site boundaries. This LUCIP provides site-specific information that can be used for future planning and development.

This LUCIP for the Tierrasanta and Mission Trails project sites has been established under the Military Munitions Response Program (MMRP), which addresses munitions and explosives of concern (MEC) located on current and former defense sites. This LUCIP was prepared by the USACE – Sacramento District for the USACE – Los Angeles District, who maintains program management responsibility for the two sites.

1.1 Project Background

Tierrasanta and Mission Trails are located in the City of San Diego County, California, approximately 10 miles east of the Pacific Ocean (see Figure 1-1). The two sites are bordered by Marine Corps Air Station (MCAS) Miramar to the north and west, the City of Santee to the east and south, and Camp Elliot to the northeast (USACE 2016).



The Tierrasanta project site is 1,897 acres bounded to the north by State Route 52, on the west by Interstate 15, on the south by Friars Road and Mission Gorge Road, and on the east by the Mission Trails Regional Park (MTRP).

The Mission Trails project site is 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 the Tierrasanta community, on the south by Mission Gorge Road, on the northeast by the City of Santee (USACE 2016). The Mission Trails site is entirely contained within the MTRP, which extends beyond the boundaries of the Mission Trail site (see Figure 1-1).

1.2 Site Description and History

The community of Tierrasanta and the Mission Trails area are located within the former Camp Elliott Reservation in the City of San Diego. The land on which Camp Elliott stood provided artillery and machine gun training ranges for the U.S. Army during World War I. The area was not used extensively between World War I and World War II; however, considerable information is available on the use of this area since World War II.

In 1941, the Navy obtained 30,500 acres for Camp Elliott and made it home of the Fleet Marine Force Training Center, West Coast, and the Troop Training Unit, Amphibious Training Command, Pacific Fleet, among other commands. Nearly 90 percent of all personnel stationed at Camp Elliott were, however, attached to Training Center organizations. Camp Elliott contained three permanent subsidiary camps, four bivouac areas, and forty-one combat or firing ranges. The site was used for tank and parachute training, and infantry, scout, mortar, and sniper schooling until 1944.

During World War II, the area was used by the U.S. Marines for weapon training and practice with a variety of weapons. Weapons used on the range included every weapon used by the Marines at the time from .22 caliber rifles to 155-mm field artillery pieces, as well as all types of demolitions, mines, and explosives.

In 1944, the Marines relocated to Camp Pendleton. The area passed back to Navy control 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; 7,710 acres were transferred to Miramar Naval Air Station; 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. The property was disposed of through land exchanges, grants, and sales during the 1960s.

1.2.1 Tierrasanta

In 1962 the General Services Administration announced that it would solicit bids for the sale of 3,950 acres of former Camp Elliott land the following year. By this time, the City of San Diego had developed a master plan that projected a population of 40,000 residents for the Tierrasanta community when fully developed. The City wanted to acquire 405 acres for neighborhood and community parks, 1,220 acres for Fortuna Mountain Park and 155 acres as rights-of-way for major streets into the area. In addition, the San Diego Unified School District wanted 383 acres for 11 school sites. In 1965 it was announced that an additional 1,080 acres of surplus land on Camp Elliott was for sale.

By 1968 the majority of the mesa tops north of Mission Valley that lie within the site had been sold and were slated for development. A Navy housing complex had been built on portion of the western mesa top adjacent to Murphy Canyon and the surrounding area was owned by Christiana Community Builders who held 2,800 acres. In the spring of 1970, Christiana announced proposed construction of the Tierrasanta community, a master planned community expected to contain 11,000 dwellings. In October 1970, the subdivision was formally opened, and months later approximately 1,200 single family homes worth \$436 million had been sold. To date, over 6,000 homes have been constructed with an estimated value in excess of \$1 billion.

1.2.2 Mission Trails

The Mission Trails site (2,100 acres) was conveyed to the City of San Diego by quitclaim deed on 10 January 1964. This deed restricted the use to historic monument/public recreational purposes for 20 years. The City planned to make a park and recreation area. The city developed the property closer to Fortuna Mountain as MTRP adjacent to the Tierrasanta community on the east. The site is easily accessible to joggers, hikers, bicyclists, motorcycles, and 4-wheel drive vehicles.

1.3 Site Chronology

Important events and milestones for Tierrasanta, Mission Trails, and other adjacent FUDS project areas as appropriate, are listed in Table 1-1, below. This table also provides a chronology of site-related actions and documents.

Table 1-1. Chronology of Significant Site Studies and Cleanups - Tierrasanta and Mission Trails

Event	Date
A warning was issued to builders in the Tierrasanta Community by the City of San Diego to use “caution in their excavation of the area”.	1964
Quitclaim deed restricted the use of Mission Trails Regional Park to historic monument/public recreational use for 20 years.	10 JAN 1964
Defense Environmental Restoration Program for Formerly-Used Sites, Findings and Determination of Eligibility, Tierrasanta (Camp Elliott), San Diego, CA, Project No. J09CA006701. (USACE-SPL)	17 SEP 1985
“Report of Ordnance Contamination, Risk Assessment and Clearance Alternative Analysis on the Former Camp Elliot (DGJ Inc., Dynamic Systems Inc., UXB International)” was completed.	SEP 1987
Visual Site Inspection – Mission Trails (USACE – SPL)	25 MAR 1988
Defense Environmental Restoration Program, Formerly Used Defense Sites, Inventory Project Report (INPR) for the former Camp Elliott. “Feasibility Study of Remedial Action Alternatives for Conventional Explosive Ordnance Items on the former Camp Elliott (DGJ Inc., Dynamic Systems Inc., UXB International)” was completed.	27 APR 1988
Record of Decision (ROD) – former Camp Elliott (Tierrasanta Community) (Deputy Assistant SEC DEF (Environmental))	19 AUG 1988
Defense Environmental Restoration Program, Formerly Used Defense Sites, Inventory Project Report, Mission Trails Regional Park (Camp Elliott), San Diego, CA Project No. J09CA006702	16 FEB 1989
Defense Environmental Restoration Program, Formerly Used Defense Sites, Findings and Determination of Eligibility, Mission Trails Regional Park (Camp Elliott), Project No. J09CA006702.	29 JAN 1990
“Final Environmental Assessment Ordnance Clearance, Mission Trails Regional Park, San Diego, California” completed (Dames & Moore)	SEP 1991

Table 1-1. Chronology of Significant Site Studies and Cleanups - Tierrasanta and Mission Trails

Event	Date
USACE updated Inventory Project Report for the former Camp Elliott, included the Defense Environmental Restoration Program, Formerly Used Defense Sites, Findings and Determination of Eligibility, Camp Elliott, Project No. J09CA006700.	27 AUG 1991
USACE conducted MEC clearance to three feet in Tierrasanta	29 NOV 1990 – 24 AUG 1993 (Contract DACA87-90-C-0052); 23 AUG 1993 – 02 MAY 1994 (Contract DACA87-92-D-0126)
USACE conducted MEC clearance to three feet in Mission Trails	15 MAY 1992 - 12 SEP 1995 (Contract DACA87-92-D-0126)
Final Ordnance Report, Tierrasanta California	FEB 1995
Final Removal Report, Camp Elliott Ordnance Removal Project, Mission Trails Regional Park, San Diego, California, Volumes 1 and 2.	OCT 1995
MEC Surface Removal at Mission Trails Regional Park.	1997
Ordnance and Explosives Long Term Monitoring Report for the Tierrasanta Community and the Murphy Canyon Naval Housing Area, San Diego, Calif. (1st Five-Year Review Report for Tierrasanta and Mission Trails)	NOV 1999
Interim Archives Search Report (ASR) produced for former Camp Elliott. (USACE St. Louis)	SEP 2003
Ordnance and Explosive Recurring Review, Mission Trails Regional Park, San Diego, California. (Second Five-Year Review Report for Mission Trails)	MAY 2003
Archives Search Report Revision (USACE St. Louis)	MAY 2004
Technical Advisory Group Review of ASRs and Fact Sheets for the former Camp Elliott	17 AUG 2004, Finalized 30 SEP 2004
Second Five-Year Review Report Former Camp Elliott – Tierrasanta	SEP 2009
Third Five-Year Review Report Former Camp Elliott – Tierrasanta and Former Camp Elliott - Mission Trails	AUG 2016

Several ordnance clearances had been conducted in the Tierrasanta community and in the MTRP property before the ROD was signed. These clearances are described in Table 1-2.

Table 1-2. Chronology of Significant Site Events - Tierrasanta and Mission Trails

Summary Of Ordnance Clearance Operations In <u>Tierrasanta</u> & Mission Trails								
	1964 ³	1965 ³	1973	1983	1984	1985	1986	1990-1994
Type of Operation			Clearance	Surface sweep	Clearance	Clearance	Clearance	Clearance
Organization	Navy	Marine Corps	Army (Ft. McArthur)	Army	Navy (EODMU3)	Navy (EODMU3)	DJG, <u>Inc</u> (UXB)	ECC Inc.
SURFACE								
Ordnance Related Items Found on Surface			93	Unknown	147 ¹	158	1,343	5,057 ²
Number of Acres Searched			5,160	Unknown	326	322.4	185	1,904.24 ²
General Location			All of Mission Trails and most of <u>Tierrasanta</u>	<u>Tierrasanta</u> Community	Sub-Areas C, E, F ⁴	Sub-Areas C, E, F ⁴	Sub-Areas A, B, C, E, F ⁴	Sub-Areas A, B, C, E, F ⁴
SUB-SURFACE								
Ordnance Related Items Found	No subsurface search	No subsurface search	No subsurface search	No subsurface search	31 ¹	56	521	
Number of Acres Searched	No subsurface search	No subsurface search	No subsurface search	No subsurface search	5,4 reported	None reported	20	
General Description	No subsurface search	No subsurface search	No subsurface search	No subsurface search	Roads and Trails in C, E, F ⁴	Roads and Trails in C, E, F ⁴	Sub-Areas A, B, C, E, F ⁴	Sub-Areas A, B, C, E, F ⁴

¹ Historical document (Commander, Naval Base San Diego 1984) states that 202 ordnance items were recovered, of which 41 were HE and 161 were inert or expended

² Clearance activities were not separated between surface and sub-surface. Therefore, numbers provided are for both.

³ Details of these clearance efforts were not located.

⁴ See Figure 1-2.

References: Commander, Naval Base San Diego 1984; DJG, et. al. 1988; Environmental Chemical Corporation 1995a, 1995b.

1.4 Current and Anticipated Future Land Use

The portion of the former Camp Elliott that now includes the Tierrasanta community was declared surplus property and transferred to developers in 1968. The Mission Trails portion of the property is a portion of MTRP; it was declared surplus by the U.S. Government and was deeded to the City of San Diego. No restrictions were placed on the development of the property and no hold harmless clauses were included in the land transfers (USACE 2016).

1.4.1 Current Land Use at Tierrasanta

At the time of the writing of this document, the Tierrasanta community is home to over 31,000 residents and over 11,000 households, with both single-family and multi-family dwellings; small to medium commercial buildings; ten public and private schools; the City of San Diego Library, Tierrasanta Branch; the Tierrasanta Recreation Center; open space areas; and on the southwest, military housing at MCAS Miramar (USACE 2016).

1.4.2 Future Land Use at Tierrasanta

The Tierrasanta community is a planned residential neighborhood, with some commercial facilities, light industrial use, open space, schools, a library, and convenient access to the MTRP. There is no indication that the land use will change in the future.

The City of San Diego and the Tierrasanta community have planned for potential future development and improvements, with the goal of maintaining the natural beauty of the area and the feeling of community. For the Tierrasanta community, there are minor improvements planned for the open space areas, plans to expand the recreational facilities and road improvements to widen lanes and add bike trails and sidewalks (USACE 2016).

1.4.3 Current Land Use at Mission Trails

MTRP is home to populations of wildlife with snakes, mountain lions, coyote, rabbits, various water fowl, foxes, and other animal species. Some of these have been designated as "Sensitive Species" and many areas are marked as off-limits to preserve their natural habitat and to promote their well-being.

At MTRP, the Visitors and Interpretive Center receives tens of thousands of visitors annually. About 61 miles of the approximate 112 miles of roads and trails are considered to be part of the park's official trail system. Of these, about 51 miles are designated for hiking and bicycle usage,

with an additional 10.5 miles of hiking only trails. Paved multi-use paths total about five miles, and multi-use trails, such as equestrian/hiking/biking trails) make up about 10 miles. The Kumeyaay Campground was recently re-opened for overnight camping.

The City of San Diego and San Diego County are the largest landowners of the MTRP. Smaller parcels of property are owned by the San Diego County Water Authority (SDCWA), and San Diego State University. There are gas, water, electricity, and sewer lines within the MTRP boundaries.

The SDCWA operates several pipelines and its associated facilities in MTRP, including the San Vicente Pipeline, the Mission Trails Pipeline, Pipeline 3 (a 69-inch diameter water pipeline), Pipeline 4 (an 84-inch diameter pipeline), and the Scripps Ranch Pipeline. The Mission Trails Flow Regulatory Structure is located along the Mission Trails Pipeline near the western ridgeline in the Fortuna Mountain area.

The City of San Diego Public Utilities Department operates and maintains several water pipelines and associated facilities in the park including the Murray First Pipeline, El Cajon Pipeline, College Ranch Feeder Pipeline, and the San Carlos Water Reservoir. The City of San Diego Public Utilities Department also operates and maintains major sewer facilities in MTRP.

A major high pressure San Diego Gas and Electric gas transmission line runs from the main system backbone near Interstate 15 east through MCAS Miramar across SR-52 into the park where it continues east through the northern edge of the Fortuna Mountain Area until it leaves the park near the Equestrian Staging Area, providing gas to the City of Santee and to portions of nearby cities.

Several San Diego Gas & Electric high voltage electrical transmission lines traverse portions of the park. These transmission lines interconnect three substations located just outside the park. The three substations are the Elliott, Sycamore, and Carlton Hills substations (USACE 2016).

1.4.4 Future Land Use at Mission Trails

MTRP is administered by the City of San Diego Parks and Recreation Department. Almost 50 percent of the land has slopes steeper than 25 percent grade, and 87 percent of the land area is included within the Multiple Species Conservation Program's Multi-Habitat Planning Area, evidence that most of the park will remain in a natural or near-natural state.

The MTRP Citizens Advisory Council and Task Force have a "Good Neighbor Policy Agreement" with the SDCWA, which outlines the protocol for how the SDCWA will handle their projects

within MTRP boundaries; utility projects are closely monitored. There are additional trails planned to be built within the park and they will connect to other trails, both existing and proposed, in nearby communities. Several have been proposed, per the MTRP Master Plan Update, but only one, the proposed San Diego River Trail, tentatively planned to extend from the Pacific Ocean to the Cleveland National Forest, will be a part of the Project 02 – Mission Trails’ footprint. This trail anticipates utilizing existing and proposed routes within the Mission Gorge and Fortuna Mountain areas.

Within MTRP, United States Fish and Wildlife Service (USFWS) has areas designated as “Critical Habitat Areas”. The Endangered Species Act uses this term and defines it as a specific geographical area that contains features essential for the conservation of a threatened or endangered species and may require special management and protection if a project is proposed within its boundaries. It requires that Federal agencies conduct their activities in such a way as to conserve species, and also requires that they must consult with USFWS to conserve listed species on USFWS lands and “to ensure that any activity they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species”. It is anticipated that these areas will not be modified or developed (USACE 2016).

1.5 Previous Investigations

The portion of the former Camp Elliott that now includes the Tierrasanta community was declared surplus property and transferred to developers in 1968. The Mission Trails portion of the property is a portion of MTRP; it was declared surplus by the U.S. Government and was deeded to the City of San Diego. No restrictions were placed on the development of the property and no hold harmless clauses were included in the land transfers (USACE 2016).

1.5.1 Human Health and Ecological Risks from Munitions Constituents

Sampling and analyses for munitions constituents (MC) have not been performed for the project area. Because of this, data are unavailable to characterize the potential human health and ecological risks posed by MC. Therefore, human health and ecological risk assessments have not been performed for the project area. Although the risks associated with MC for the project area are unknown, they are likely to be negligible given the length of time since any munitions activities (*e.g.*, weathering), and vegetation limiting human access to large portions of the project area (USACE 2015).

1.5.2 Munitions Response Site Prioritization Protocol

The Munitions Response Site Priority Protocol (MRSPP) was published as a rule (35 Code of Federal Regulation [CFR] Part 179) on October 5, 2005, in response to direction from Congress that DoD identify and then prioritize their sites. The protocol was designed to incorporate the most current site-specific data. The protocol assigns a relative priority to each location in the DoD inventory of defense sites known or suspected of containing MEC or MC, and prescribes procedures for prioritizing the defense sites. The MRSPP is generated in accordance with Army policy and for Army use.

The site priority ranking is based on the risk posed by potential hazards captured in data entered for three hazard evaluation modules of the MRSPP: the explosive hazard evaluation (EHE) module, the chemical warfare materiel (CWM) hazard evaluation (CHE) module, and the health hazard evaluation (HHE) module.

Site priorities range from 1 (highest priority) to 8 (lowest priority). Alternative module rates can include “evaluation pending,” “no longer required,” or “no known or suspected (explosive, CWM, and/or MC) hazard.”

For the Tierrasanta site, multiple surveys, sweeps and clearances have been conducted with ordnance and explosive (OE) related items being uncovered each time (see Section 1.5). No OE problems due to erosion, new construction, recreational or other activities, storm damage or changes in land uses were found during the 1999 Final Ordnance and Explosives Long Term Monitoring Report and vegetation at the Tierrasanta site has increased soil stability. No known CWM items were historically present or used and no CWM items have been recovered. Therefore, the alternative rating “No Known or Suspected Hazard” is selected for the CHE module. Because the project is in Long Term Management, the alternative rating “No Longer Required” is selected for the EHE and HHE modules (USACE 2014a).

For the Mission Trails site, multiple clearance efforts have been conducted with OE being recovered during each (see Section 1.7). A 1985 clearance effort concluded that ordnance would continue to be found in both swept and unswept areas due to erosion and changing vegetation patterns. During the 2003 field visit in support of the OE Recurring Review, no OE was found due to erosion, new construction, recreational or other activities, storm damage, or changes in land use. The field team also observed that vegetation has increased soil stability at the Mission Trails site and limits human access to portions of the site. No known CWM items were historically present or used, and no CWM items have been recovered. Therefore, the alternative rating “No Known or

Suspected Hazard” is selected for the CHE module. Because the project is in Long Term Management, the alternative rating “No Longer Required” is selected for the EHE and HHE modules (USACE 2014b).

1.6 Record of Decision (Decision Document)

The ROD (see Appendix A) for the Former Camp Elliot Training Range was signed in August 19, 1988. This ROD described the selected following alternatives:

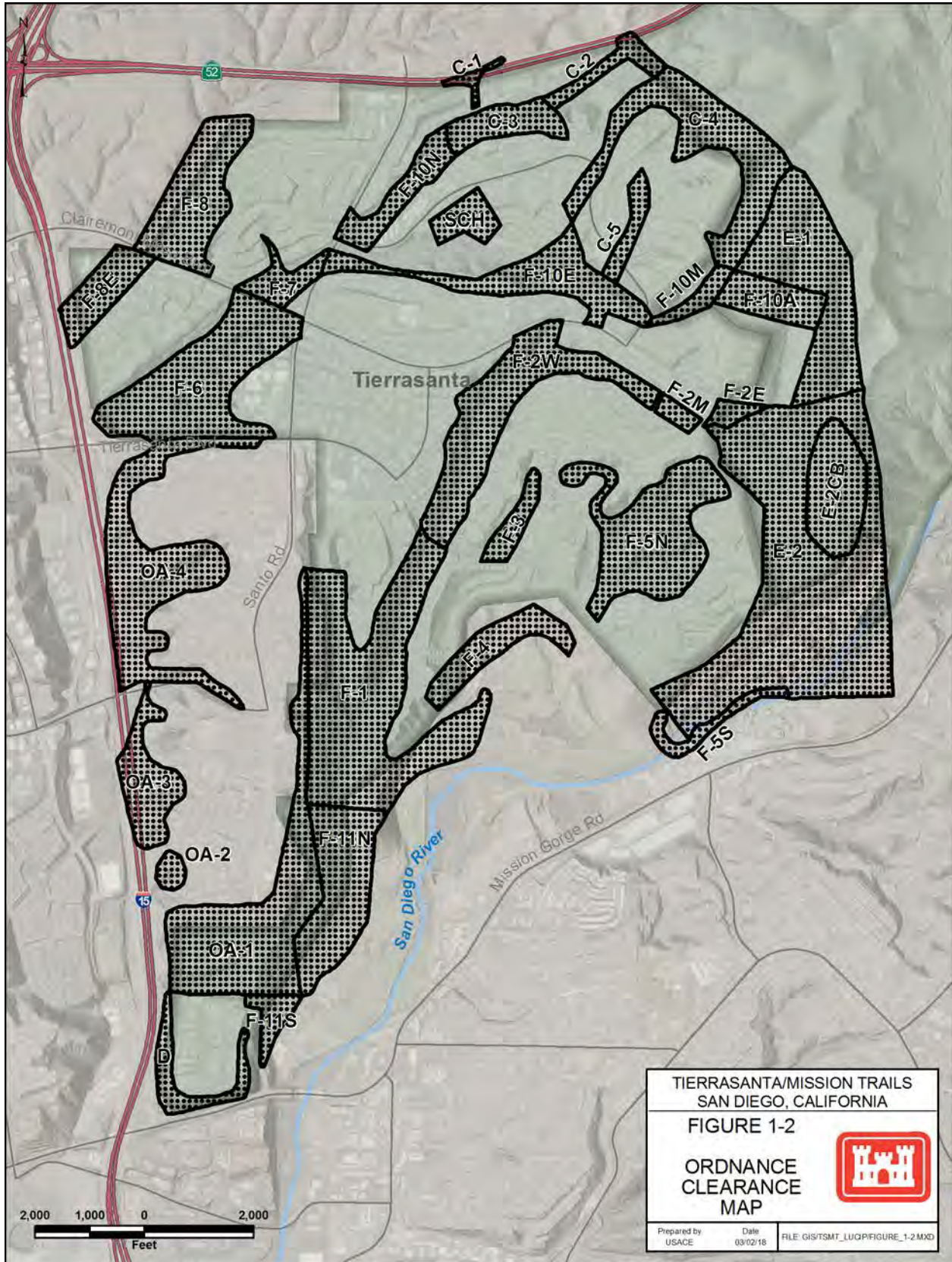
- 1). Ordnance clearance using electromagnetic ordnance locators after selective manual removal of vegetation, and;
- 2). Ordnance clearance using electromagnetic ordnance locators after prescribed burning.

The declaration of the Tierrasanta project site as surplus property and eventual transfer to developers in 1968 meant there was significant population that needed to be educated about the presence of the MEC in and around their community. The subsequent munitions clearance work done for Tierrasanta also included areas of Mission Trails so both sites eventually needed a public education effort, which was accomplished through the implementation of non-engineered LUCs (*i.e.*, signs). This education effort was required per the ROD (see Appendix A, page 2, “Other Action”). Although LUCs were not formally selected as part of the final alternatives for Tierrasanta and Mission Trails project sites, the use of non-engineered LUCs is warranted given the access that large populations have to these sites.

1.7 Summary of Remedial Actions

1.7.1 Ordnance Clearance – Tierrasanta

The USACE contractor performed an ordnance surface and subsurface clearance on the Tierrasanta site between November 1990 and May 1994. During this time, 1,904.24 acres were swept, 171,559.9 pounds of ferrous debris, 28,491.7 pounds of ordnance scrap, 3,991 hazardous small arms, and 1,066 hazardous items larger than small arms were located and removed. During the contract period, the community consisted of more than 7,000 homes, office complexes, commercial establishments and other structures. This area is shown on Figure 1-2 (ordnance clearance areas are shaded). The Area of Concern for the 1990-1994 removal action was divided into six Sub-Areas with different remedies applied to each. The areas were characterized as Sub-Areas A through F.



As reported in the Unexploded Ordnance (UXO)/MEC clearance report, Sub-Areas C through F within the Tierrasanta site were surface and subsurface cleared to three feet (electromagnetic ordnance locators capable of locating ordnance and ordnance debris to a depth of three feet were used). The MEC discovered during project activities was present in low densities over most of the site, with a few areas of high density and several areas were completely devoid of UXO. Overall, 3,787 small arms-related items and 1,016 other ordnance items were removed. One exception to the clearance area was a portion of Area D. Because the La Mirage Condominium Association refused to grant the USACE a rights-of-entry to access its property, “only the 9 northern most [sic] grids (19,325 square feet)” were swept (USACE 2016).

- **Sub-Area A, Action Taken:** The property was reacquired by the U.S. Government for use by the U.S. Navy and fenced as required. However, portions designated as OA-1, OA-3, and OA-4 were swept by the USACE Contractor, who found and removed 13 small arms items and no MEC/UXO. The area cleared consisted of 19,481,432 square feet (447.23 acres).
 - **Area OA-1** – Located north of Sub-Area D, on the southern end of the contract. Two MK-13 signal flares were found and removed from this area; no other ordnance was found.
 - **Area OA-3** – An area that is bordered by Aero Drive on the north, Highway 15 to the west, the Murphy Canyon housing project to the east, and OA-2 to the south. Only 33 grids of 116 were swept, and three shotgun shells were found, no other ordnance.
 - **Area OA-4** – An area located on the western side of the Project 01 area, with Tierrasanta Boulevard on the north, Murphy Canyon’s housing area to the east, Aero Drive on the south, and I-15 on the west. Ten small arms items were found in this area.
- **Sub-Area B, Action Taken:** Fencing was completed by the USACE, after the California Department of Transportation obtained right-of way and after the area had been cleared of ordnance by the USACE contractor. According to the Final Removal Report, no MEC/UXO was found.
- **Sub-Area C, Action Taken:** The ordnance clearance sweep was completed, with 370 small arms-related items, 118 items other than small arms found and removed in 5,156,959 square feet (118.39 acres).
- **Sub-Area D, Action Taken:** The ordnance clearance sweep was not completed because the property owners (cited as the La Mirage Association) did not permit the clearance sweep to

occur. The final clearance report documented 42 pounds of scrap were recovered in 19,325 square feet (0.444 acres) of the property (9 grids in the northern portion of the sub-area).

- **Sub-Area E, Action Taken:** The ordnance clearance for this area was completed using electromagnetic locators, after selective manual brush clearing in areas requiring brush clearing. According to the Final Report, a “significant amount of ordnance was removed” in Area E-1, which was owned by the U.S. Navy at the time, but being held in escrow to be turned over to the City of San Diego in order to be incorporated into the City’s holdings at MTRP. In E-1, 267 small arms and 170 items other than small arms were found and removed (three items had to be blown-in-place). No controlled burns were permitted by the San Diego Fire Marshal, based upon the existing conditions at the time of the clearance and because of the sensitive species found in Sub-Area E. The USACE Contractor, in Area E-2, swept 519 grids or 9,236,181 square feet (212.034 acres) of this area in the Tierrasanta contract, and the remainder (17 grids or 276,440 square feet (6.346 acres)) were made a part of the Mission Trails clearance project. In Area E-2, 311 small arms items and 67 other than small arms items were found.
- **Sub-Area F, Action Taken:** The area was cleared, with portions designated as F-1 through F-11 (including F-10A, F-10E, F-10M, F-10N, F-11N, and F-11S). These areas are described below:
 - **F-1** – A large deep canyon running north/south with two smaller canyons, and the primary watershed for the Tierrasanta community, extending north from the driving range at Admiral Baker Field. In this area, 23 small arms items and 4 items other than small arms were found.
 - **F-2** – An L-shaped canyon located in the center of the Tierrasanta site. There were 537 small arms items and 217 items other than small arms found in this area, including items containing White Phosphorus.
 - **F-3** – A centrally located portion of the Tierrasanta site described as a dead-end canyon with no access from the north. Twelve small arms and 3 items other than small arms were found and removed.
 - **F-4** – A canyon area located east and north of Area F-1. No ordnance was found in this area.

- **F-5N** – Described as “Independence Canyon” in the Final Removal Report, located west of Area E-2, with extremely steep terrain and a habitat for several sensitive species. Over 1,100 small arms items and 196 other than small arms items were found in this area, with nine blow-in-place events, some as consolidated shots.
- **F-5S** – An L-shaped canyon area at the southern end of sub-area E-2 that was the first area where clearance occurred. No ordnance was found in this area.
- **F-6** – A long, wide canyon located at the western edge of the contract, designated as Shepherd’s Canyon, situated between I-15 and Santo Road, and a habitat for sensitive species. There were 417 small arms items and 11 other than small arms found in this area.
- **F-7** – A part of Shepherd’s Canyon located in the northeastern portion of the Project 01 property. During clearance activities, 36 small arms items and 81 other than small arms items were found and removed.
- **F-8** – An area located west on the project, bordered on the west by I-15, to the north by Clairemont Mesa Boulevard, and on the south by Highway 15. There were 14 blow-in-place operations in this area on the extreme northern end of the canyon.
- **F-9** – A canyon area that is a part of Elanus Canyon (which runs through MCAS Miramar), in the northwestern corner of the Project 01 area. Mostly small arms were found in this area.
- **F-10A** – The “gateway for many Tierrasantans to access Mission Trails Regional Park”, was begun as a part of the Tierrasanta community contract and completed under the Mission Trails contract. Thirty small arms items were found and 67 items other than small arms were found and removed from the project.
- **F-10E** – A large canyon with an east/west axis, east of Santo Road and south of Antigua Boulevard. With two blow-in-place operations, there was otherwise light ordnance density.
- **F-10M** – A canyon area located in the eastern portion of the contract for Tierrasanta and a portion of Shepherd’s Canyon that is in the transition area between Tierrasanta and MTRP. One blow-in-place demolition was performed in this area.
- **F-10N** – A canyon area located in Shepherd’s Canyon, oriented along a northeast/southwest axis. Twelve large ordnance items were removed from this area.

- **F-11N** – A canyon area located in the southern portion of Project 01, between Sub-Area D and F-1. No ordnance was found in this area.
- **SCH** – An area located between Area C-3 and F-10E, belonging to the San Diego Unified School District, comprising 537,834 square feet. The area was contaminated with hazardous waste, with only two military-related items found (a .50 caliber round and one .30 caliber clip without bullets).

1.7.2 Ordnance Clearance – Mission Trails

The City of San Diego Fire Department records indicate that “8 OE items (7-75mm AP and 1-105mm HE) were found near Fortuna Mountain” in 1984/1985. Thus, the MEC clearance was initially focused on the West Fortuna area, and included a 1667-acre area of MTRP, not the entire MTRP. It also included portions of the Tierrasanta community that had not been cleared under the previous contract.

The MEC clearance to three feet at Mission Trails was performed by a USACE contractor with the assistance of a biologist, who ensured that sensitive plants, birds, and animals were not adversely affected by the clearance activities. Demolition was done by the 70th Explosive Ordnance Detachment (EOD), Fort Rosecrans or the Navy EOD Mobile Unit 3. Over 150 disposal operations were performed, with 27 items deemed unacceptable-to-move, and as a result, were blown-in-place. This contract included 15 Delivery Orders (now called “Task Orders”), including some work done in Tierrasanta community, to complete the work begun in the Tierrasanta canyons. A "Certificate of Ordnance Clearance" was provided to the U.S. Army Corps of Engineers, Los Angeles District on October 24, 1995. Demilitarized items were turned over to the Defense Reutilization and Marketing Office. (USACE 2016).

2.0 LAND USE CONTROLS

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 (ICs) 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.

2.1 Objectives and Descriptions of Existing LUCs

The objective of existing LUCs at Tierrasanta and Mission Trails are to minimize the exposure of residents and recreational users to MEC items through the use of provided information and notification, and if encountered, to properly educate people on avoidance and reporting procedures.

These objectives are met by implementing LUCs that warn of potential hazards and supply up-to-date information on how to recognize and report encounters with MEC items. Multiple efforts have been undertaken by branches of the military to clear the site of MEC over the years. These clearances have been done prior to the establishment of the Tierrasanta community and MTRP. Recognizing that these clearances cannot provide an absolute guarantee of removing all MEC items, the USACE has implemented the following LUCs.

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

Public awareness programs were first implemented at Tierrasanta and Mission Trails in 1984 and 1985. Alternatives evaluated in the 1988 Feasibility Study included several public awareness programs. The ROD recommended preferred alternative consists of combinations of alternatives for the various sub-areas of the project area. The ROD also states that efforts will be made to expand educational programs on unexploded ordnance within the community. Although not expressly defined as LUCs in these documents, these programs were the precursors to the current project LUCs.

2.2 Descriptions of LUCs

2.2.1 Warning/Informational Signs in Open Spaces

Warning/informational signs have been placed at strategic points throughout both the Tierrasanta community and MTRP. Figures 2-1 and 2-2 and Photos 2-1 to 2-4 show the location of the signs at Tierrasanta and Mission Trails, respectively.

At Tierrasanta, warning signs are distributed throughout the community along the paths that wind through the community. Some signs are at trailheads and others are located along paths and in open areas where recreational users are likely to frequent. At MTRP, signs are also located at trailheads throughout the park and are generally located along the perimeter of the park. At both sites, the warning signs provide information about the history of the site, the type of MEC that may be found and directions to call 911 if a suspected MEC item is found. Currently, signs are in English only, it is recommended that all signs be replaced with signs in both English and Spanish.

2.2.2 Public/Community Education/Awareness

2.2.2.1 USACE FUDS Program Websites

Specific information for Tierrasanta and Mission Trails project sites (as subsites to the larger Camp Elliott) can be found at the links listed below. These links also provide general information on the USACE FUDS program, contact information in the Los Angeles district and additional information and maps for all sub areas of the former Camp Elliott site.

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

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

2.2.2.2 Mission Trails Regional Park Visitor Center MEC Display

The MTRP Visitors and Interpretive Center has a display area where a sample of recovered munitions (inert) is available for public viewing (see Photo 2-5). Handouts are also available that describe the safety risks associated with unexploded munitions, and the use of the 3R's of explosive safety; Recognize, Retreat, and Report. See Appendix B for examples of the type of educational material that has been produced and is available to the general public.

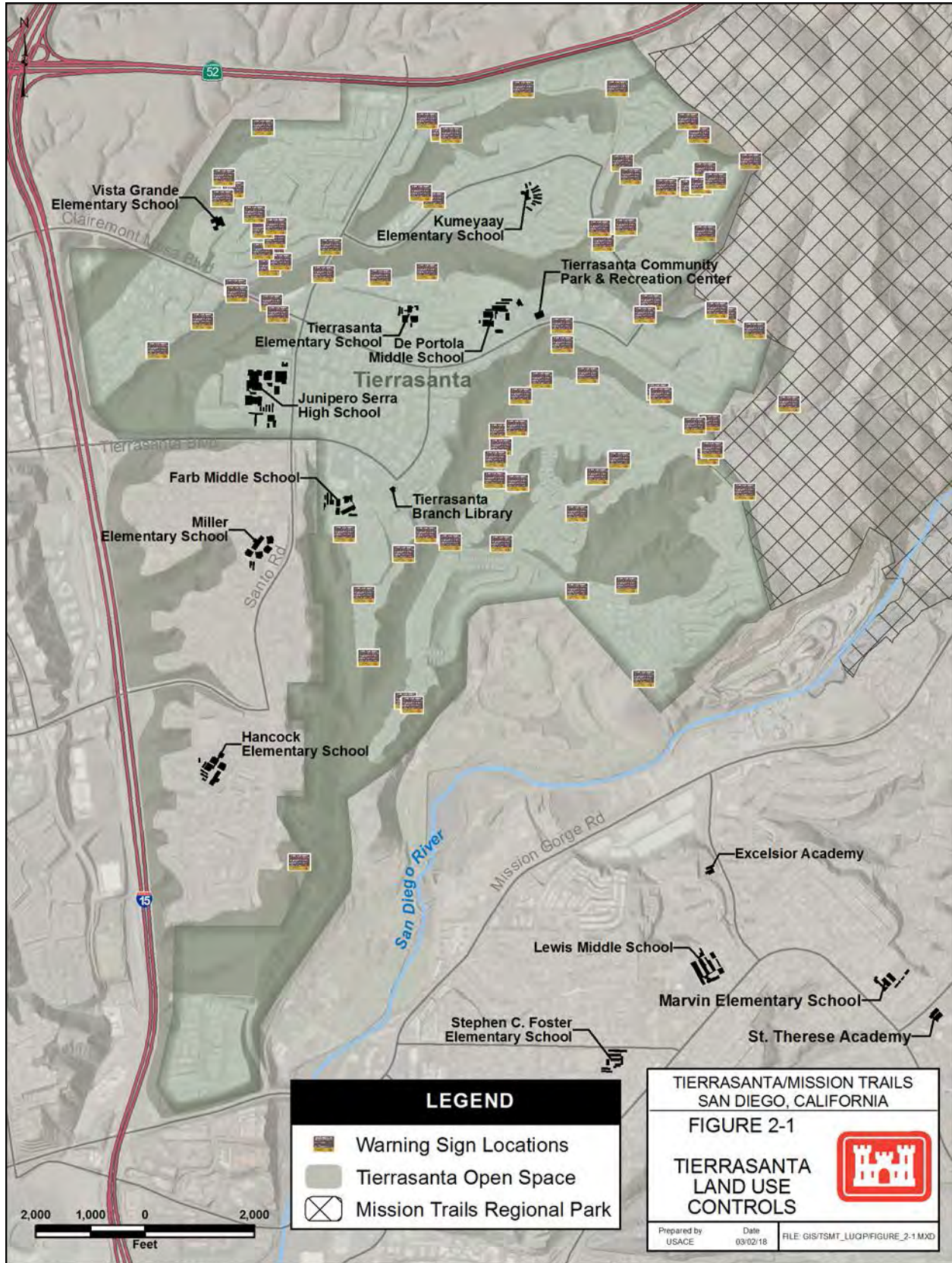


Photo 2-1. Tierrasanta Warning Sign (typical)



Photo 2-2. Tierrasanta Warning Signs Placement (typical)



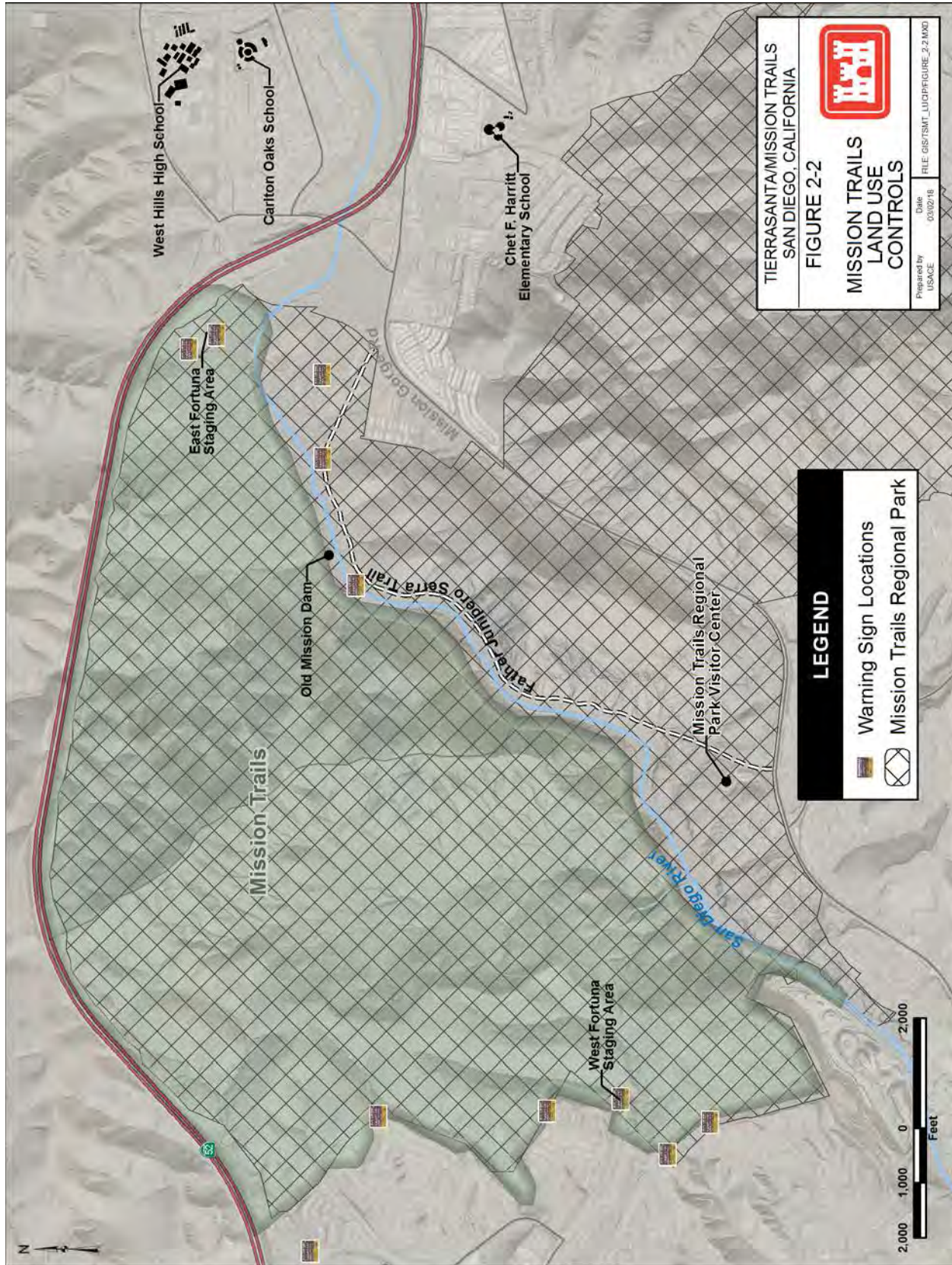


Photo 2-3. Mission Trails Warning Signs (typical)



Photo 2-4. Mission Trails Warning Signs (typical)



Photo 2-5. Mission Trails Interpretive Center Unexploded Munitions Display



Additional potential public information sources are local public school events, City and County of San Diego websites and social media.

2.2.2.3 Local Public Schools

The USACE will provide information (in both English and Spanish) to local public schools that can be used to educate students on the past use of these sites, the potential dangers of encountering MEC and the proper response if suspected MEC items are encountered. The information can be supplemented with handouts that students can take to their homes and share with family members. Schools that this information will be supplied to include:

- Hancock Elementary School
- Vista Grande Elementary School
- Tierrasanta Elementary School
- Excelsior Academy
- Marvin Elementary School
- Miller Elementary School
- Kumeyaay Elementary School
- De Portola Middle School
- Lewis Middle School
- St. Therese Academy

- Henry High School
- Myron B. Green Elementary School
- Pershing Middle School
- Our Lady of Grace Catholic School
- Prospect Avenue Elementary School
- Sycamore Canyon School
- Idea Center & Chaparral High School
- Northmont Elementary
- Farb Middle School
- Gage Elementary School
- Sierra and Springall Academies
- Dailard Elementary School
- Benchley-Weinberger Elementary
- Murray Manor Elementary School
- Chet F Harritt Elementary School
- Carlton Oaks School
- West Hills High School
- Flying Hills Elementary School
- Stephen C. Foster Elementary School
- Junipero Serra High School
- Magnolia Science Academy

2.2.2.4 City of San Diego Websites

The City of San Diego has a website that can be used to post Tierrasanta and Mission Trails LUC and general community education information. Point of contact for posting LUC related information on the City of San Diego website is Patrick Bouteller (phone: 619-236-6597 email: pbouteller@sandiego.gov). The section of the City of San Diego website that can contain a link that takes a viewer to LUC related information is at the screenshot webpages showed on Figures 2-3 and 2-4.

2.2.2.5 Tierrasanta Community Council Website

The Tierrasanta Community Council has a website that can be used to post Tierrasanta LUC and general community education information. Point of contact is President, Deanna Spehn (phone: 858-565-4018 email: dspehn1@san.rr.com). The section of the Tierrasanta Community Council website that can contain a link that takes a viewer to LUC related information is at the screenshot webpages showed on Figure 2-5. The Tierrasanta Community Council does maintain a Facebook page that can be used to post information on LUCs. The page is maintained by volunteers and may require more time to get things posted. Deanna Spehn is also the point of contact for the Facebook page.

Figure 2-3. City of San Diego Website for Tierrasanta

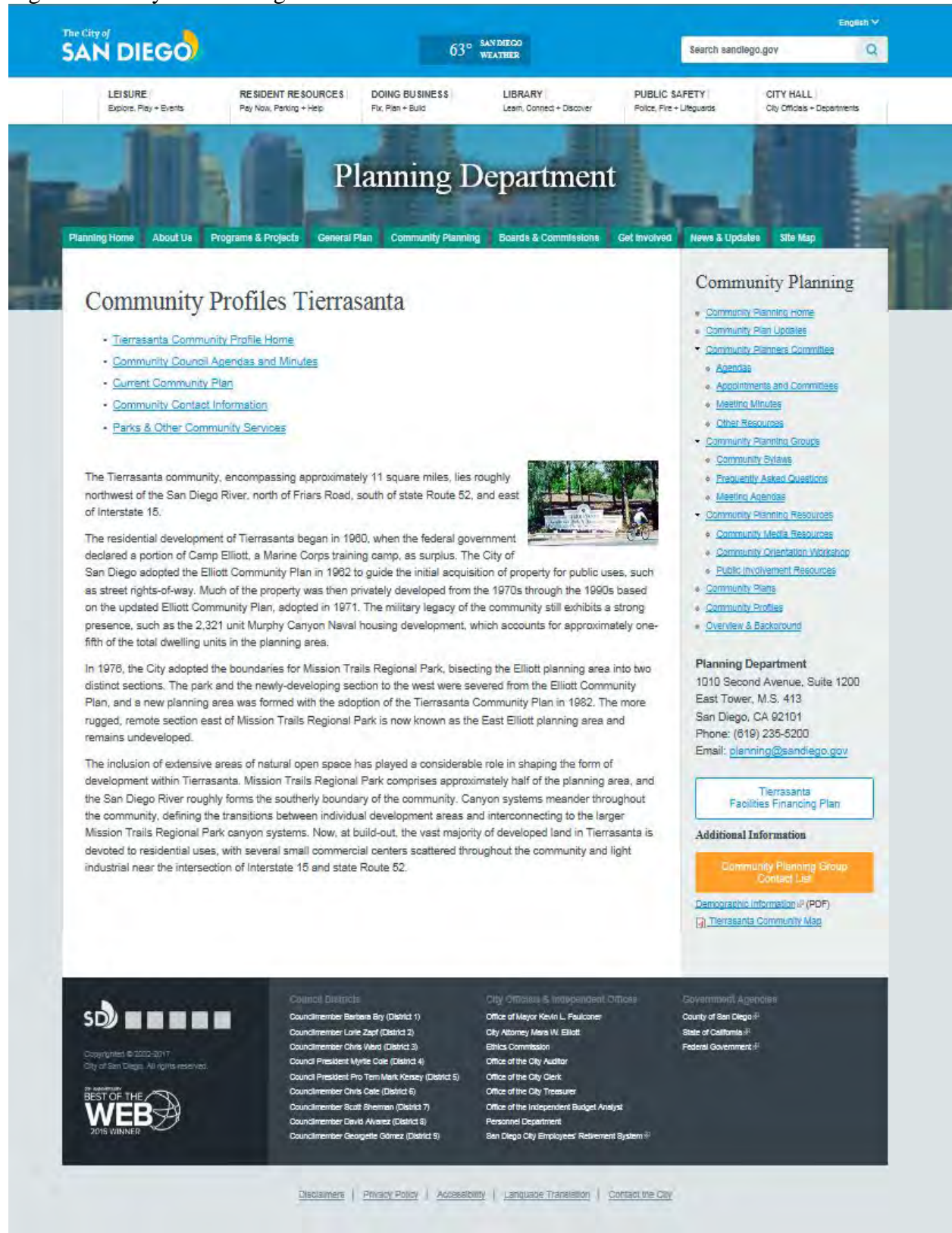


Figure 2-4. City of San Diego Website for Mission Trails

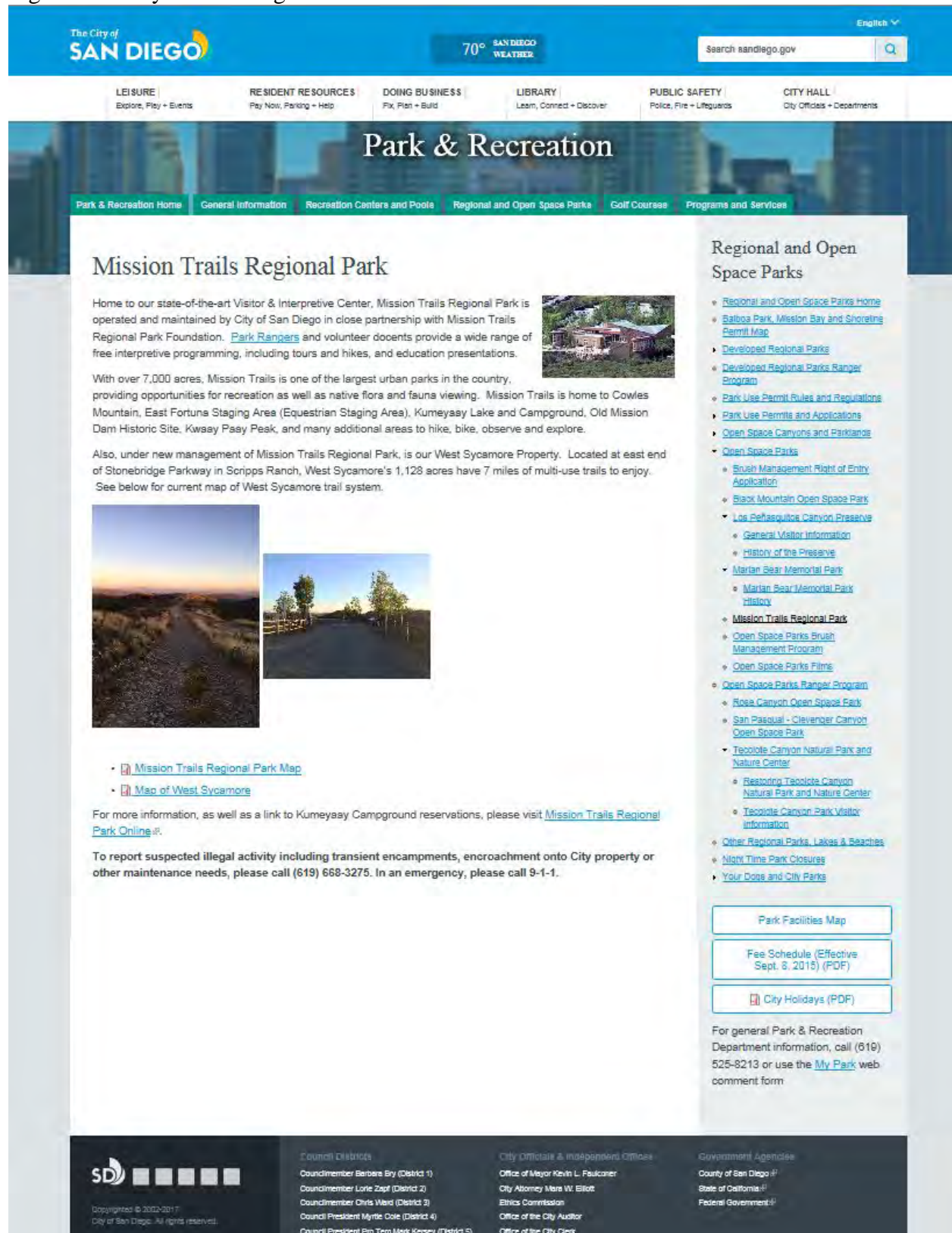


Figure 2-5. Tierrasanta Community Council Website

The screenshot shows the website for the Tierrasanta Community Council. At the top, there is a search bar and a navigation menu with links for Home, About Us, Documents, Contact, Calendar, Meetings, and Tierrasanta. The main content area features a section titled "History of Tierrasanta" with a circular logo on the left. The text describes the community's origins and key events:

- 1941. The U.S. military purchased the land in 1941 as Camp Elliott, a Marine Corps training facility.
- 1944. The Marines moved out and the land was transferred to the Navy.
- 1946. Deactivated in 1946.
- 1961. The U.S. Government sold the area that is now Tierrasanta and a portion of neighboring Mission Trails Regional Park to the City of San Diego.
- 1962. The Elliott Community Plan was issued to serve as a roadmap for development.
- 1971. Tierrasanta was founded.
- 1982. The current Tierrasanta community plan was issued, and included both the currently developed area and much of what is now Mission Trails Regional Park. By 1982 approximately one-half of the private residential area had been developed, with the area called Tierrasanta Norte, in the northeastern part of town, being one of the locations still to be developed.
- 1990's. Tierrasanta has been fully built out since the early 1990s.
- 2000. Population reached 30,187 (ZIP code 92124).

Significant Events:

- Because of the area's history as a military training base, some military debris including unexploded ordnance remained in the area when it was developed, in spite of multiple cleanup efforts by different branches of the services. In 1983 two 8-year-old Tierrasanta boys were killed after discovering unexploded ordnance in a canyon near their home. The Navy performed surface clearance operations in 1984 and 1985. Between 1990 and 1995 the U.S. Army Corps of Engineers removed several tons of ordnance and debris under its FUDS (Formerly Used Defense Sites) program. The Corps continues to monitor the area.
- In October 2003, Tierrasanta, among other communities in San Diego, was affected by what was known as "Firestorm 2003." This was a conglomeration of the Cedar Fire and numerous other wildfires that converged on Southern California. The residents of Tierrasanta were forced to evacuate. Nearly a dozen homes were lost to the blaze. Shortly after, in 2004, the Tierrasanta Community Emergency Response Team (T-CERT) was created for rapid local response to natural disasters. A similar scare swept through Tierrasanta in the fall of 2007, though residents were not required to evacuate.

Tierrasanta is situated like an island, not directly bordered by any other community. It is bounded on the north by the Hwy 52 Freeway and the sprawling southern fields of MCAS Miramar; on the east by the 5,800-acre Mission Trails Regional Park, which has numerous hiking and mountain biking trails; on the west by bluffs bordering the Interstate 15 corridor, and on the south by steep canyons overlooking the San Diego River and Mission Valley. Community activities focus on the Tierrasanta Recreation Center, which includes lighted sports fields, a large swimming pool, tennis courts, a gymnasium, and meeting rooms. Numerous green belts with walking paths run through the canyons of Tierrasanta. The community has tree-lined streets and a secluded "small town" atmosphere, though it is centrally located with a 20 minute drive to downtown San Diego.

At the bottom of the page, there are three columns: "Recent Posts" listing articles about operations at MCAS Miramar, airport standards, street re-sealing, and prescribed burns; "Archives" listing dates from December 2016 to July 2015; and "Links" listing various local organizations and centers.

2.2.2.6 Mission Trails Regional Park Website

The MTRP has a website that can be used to post LUC and general community education information. Point of contact is Jay Wilson, Executive Director (phone: 619-405-0177 email: jwilson@mtrp.org). In the near future, when Jay Wilson retires, the new point of contact will be Leslie Perkins (phone: 619-582-4502 email: lperkins@mtrp.org). The home page of the MTRP website where a recreational user can access Mission Trails LUC related information is at the screenshot webpages showed on Figure 2-6.

2.2.2.7 County of San Diego Website

The County of San Diego has been contacted and to date has not responded with a point of contact for posting LUC related information to their website.

2.2.3 Notification of Individuals (*e.g.*, Contractors, Homeowners Potentially Contacting MEC)

Notifying new construction projects that are planned for the Tierrasanta community and MTRP will be done by making LUC information available to the San Diego County Building Department. This information should be included as part of the review process when a project includes any type of intrusive, subsurface activity. As part of the approval process, the building department can attach the LUC information to the prospective builder/developer so they can be made aware of the potential to encounter MEC. In addition, the Tierrasanta Community Council provides a newsletter that is distributed to all residents on a regular basis.

2.2.4 Establishment of Document Repositories

Repositories for documents that pertain to the LUCs at Tierrasanta and Mission Trails will be kept at the Tierrasanta Branch Library and at the Mission Trails Regional Park Visitor and Interpretive Center. Contact information for each repository is below:

Tierrasanta Branch Library
4895 La Cuenta Drive
San Diego CA 92124
858-573-1384

[http://publiclibraryhours.com/library/3607/
CA/San+Diego](http://publiclibraryhours.com/library/3607/CA/San+Diego)

Mission Trails Regional Park
Visitor and Interpretive Center
One Father Junipero Serra Trail
San Diego, CA 92119
619-668-3281

http://www.mtrp.org/visitor_center

Figure 2-6. Mission Trails Regional Park Website

Mission Trails Regional Park

Home | The Park | Visitor Center | Campground | Events | Nature Study | Contact Us | Trail Maps

Explore Mission Trails Day | CAC/Task Force | Master Plan | Contact Us | Foundation | **DONATE**

You Are Invited to Shape Public Art for the Mission Trails Field Station
 Saturday, June 24 - 10AM - 2PM.
 Mission Trails Regional Park Visitor Center Lobby
 One Father Junipero Serra Trail, San Diego, CA 92119
 Artist Roman de Salvo has been selected to create a permanent public artwork for the new Mission Trails Field Station.
[READ MORE](#)

Book your next meeting or after-hours event at the Visitor Center.
[Click to learn how](#)

Take the Mission Trails Regional Park 5-PEAK CHALLENGE
 Click here to find out how!

MORE NEWS
[You Are Invited to Shape Public Art for the Mission Trails Field Station](#)
[MTRP CAC meeting scheduled for June 28, 2017 canceled](#)
[Summer Camps for children ages 8 to 12](#)
[25th Annual Amateur Photo Contest Entries are now on display through July 14](#)
[Free Concert-July 02 - Peter Sprague - Guitarist](#)
[Big Rock Trails are now open](#)
[Amateur photo contest entries on display - June 17 to July 14, Reception & Awards, June 25 at 2-4pm](#)
[Nature Adventures! for children 4 and up returns in September 2017](#)
[8 Year Old "Sienna Hiker" conquers the 5-Peak Challenge - watch her YouTube video](#)
[2018 Call for Artists for shows at the MTRP Visitor Center](#)
[Mountain Bike Guided Nature Ride Series- Ride #1 is Saturday, Oct. 7, 2017!](#)
[Enjoy Virtual Tours of the Kumeyaay Lake Campground and the MTRP Visitor Center](#)
[Mission Trails Regional Park Master Plan Update](#)
[Butterflies & Dragonflies of Mission Trails by David Cooksey](#)
[5-Peak Challenge - One of the 15 outdoors challenges in April issue of San Diego Magazine](#)
[Amazon Smile - Amazon will donate 0.5% of your purchase price to the MTRP Foundation](#)
[Kumeyaay Lake Campground is open for weekend camping](#)
[When it is HOT outside, hike with plenty of WATER and pay attention to your dog!](#)

[View all past news](#)

Mission Trails eNewsletter
 Subscribe to eNews
 Receive the latest information about our programs, events, and interesting things about the park.
 Enter Email Address

Mission Trails Regional Park
 It 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](#)

Location
 One Father Junipero Serra Trail
 San Diego, CA 92119
 (619) 688-3281
mtrp@mtrp.org
[Trail Maps](#) [Directions](#)

DONATE | Home | CAC Task Force | The Park | Visitor Center | Events | Nature Study | Contact Us | Foundation | Newsletter | FAQs | Related Links |

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 Website sponsored by: Mission Trails Regional Park Foundation
 Funded in part by the City of San Diego Special Promotional Programs
 and the County of San Diego Community Enhancement Funds

2.3 Army LUC Requirements

2.3.1 LUC Implementation Plan Distribution

Recipients of the LUCIP and all future reporting associated with LUC management and maintenance is shown in Table 2-1.

Table 2-1. List of Project Delivery Team and Stakeholders

PROJECT DELIVERY TEAM MEMBERS	
U.S. ARMY CORPS OF ENGINEERS	
Ms. Karen Oden, PMP CESPL Project Manager 5205 Comanche Street, Building 1605 Davis-Monthan AFB, AG 8507 Tucson, AZ 85707 Phone: (520) 584-1667 email: karen.l.oden@usace.army.mil	Mr. Jim Hug CESPL OE Safety Administrator 13960 Eagle Street Luke Air Force Base Glendale, AZ 85309 Phone; (623) 282-9868 email: james.w.hug@usace.army.mil
Mr. Mark Jones CESPCK Risk Assessor/Toxicologist 1325 J Street Sacramento, CA 95814 Phone: (916) 557-6948 email: mark.k.jones@usace.army.mil	
PROJECT STAKEHOLDERS	
CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)	
Mr. Mustapha Guerbaz CA DTSC Project Manager Cypress Field Office 5796 Corporate Avenue Cypress, CA 90630-4732 Phone: (714) 484-5430 email: mustapha.guerbaz@dtsc.ca.gov	

MISSION TRAILS REGIONAL PARK	
<p>Ryan Robertson Senior Park Ranger Developed Regional Parks Division, Parks & Recreation 2125 Park Blvd, MS 39 San Diego, CA 92101 email: rrobertson@sandiego.gov</p>	<p>Ms. Dorothy Leonard POC for MTRP CAC MTRP Foundation One Father Junipero Serra Trail San Diego, CA 92119-1008</p>
TIERRASANTA COMMUNITY COUNCIL	
<p>Ms. Deanna Spehn, UXO Liaison ATTN: Tierrasanta Community Council 1350 Front Street, Room 6054 San Diego, CA 92101 Phone: 858-565-4018 email: Dspehn1@san.rr.com</p>	
CITY OF SAN DIEGO	
<p>Mr. Dan Monroe, Senior Planner City of San Diego, Tierrasanta 1222 First Avenue, MS 413 San Diego, CA 92101</p>	<p>CPT John Wood, Commander SD Fire Department, Metro Arson Strike Team (MAST) 1222 First Avenue San Diego, CA 92101</p>
<p>Mr. Dan Foley City of San Diego Parks Department - Tierrasanta Community 202 C Street, 5D San Diego, CA 92101</p>	<p>Officer Adam McElroy, Community Service Officer SD Police Department, Eastern Division 9225 Aero Drive San Diego, CA 92123</p>
MCAS MIRAMAR	
<p>Mr. Juan Lias, Public Affairs MCAS Miramar PO Box 452001 San Diego, CA 92145-2001</p>	<p>Ms. Kristin Camper, Public Affairs MCAS Miramar PO Box 452001 San Diego, CA 92145-2001</p>

SAN DIEGO UNIFIED SCHOOL DISTRICT (SDUSD)	
Ms. Cindy Marten, Superintendent San Diego Unified School District (SDUSD) 4100 Normal Street, ED CTR 2219 San Diego, CA 92103	Mr. Sergio Salinas, SDUSD Facilities Physical Plant Operations Center 4860 Ruffner Street San Diego, CA 92211
Mr. Kevin Beiser, President & Sub-District B Representative SDUSD Board of Education Board of Education Office, SDUSD 4100 Normal Street, Room 2231 San Diego, CA 92103	

2.3.2 LUC Maintenance Requirements

2.3.2.1 Agency Responsibilities

The USACE is the lead agency. DTSC is anticipated to continue to be lead regulatory authority into the future. USACE and DTSC staff will be responsible for implementation and administration of all LUCs.

Breakout of responsibilities of the USACE and DTSC are as follows;

1. USACE is responsible for overall safety, which will include adherence to LUCs;
2. USACE and/or authorized representatives will perform annual inspections of the LUCs;
3. USACE will fund as necessary, maintenance of all LUCs; and
4. DTSC will review and comment on a future proposal for removal of LUCs and subsequent amendment to the ROD or applicable decision document.

Annual LUC Audit Checklist inspections include the inspection for the presence and condition of signs. The inspection reports for years 1 through 4 will be provided to the DTSC for review during the Five Year Review Report cycle.

2.3.2.2 Education

Adherence to LUC warnings at the Tierrasanta and Mission Trails sites is a matter of personal responsibility by the inhabitants and users of the property where MEC may still be encountered. The USACE has strategically placed the necessary educational information for safety and reporting of MEC so that users can be well informed. There are no engineered LUCs, such as fences, at either site that keep human receptors from MEC contaminated areas.

Public information and educational controls are used to inform and educate the general public of the danger of encountering MEC. The information provided is in the form of strategically placed warning signs located throughout both sites and handouts that are available at MTRP Visitors Center (see Appendix B). Residents and recreational users of the Tierrasanta community and recreational users of the MTRP are expected to voluntarily self-restrict their interaction with the potential MEC items that may be encountered.

Additional methods of informing the general public in proximity to the two sites includes, short briefing events for local public schools, training for MTRP new employees, and social media websites for the city and county of San Diego.

2.3.2.3 Recording

The USACE maintains the administrative record that contains all records for the Tierrasanta and Mission Trails sites. These records include all studies, cleanup and clearance actions, ROD, LUCs, annual LUC inspections and Five Year Review reports. The administrative record, including underlying documents, can be accessed with permission from the USACE points of contact listed in Table 2-1.

2.3.2.4 Notification Should Actions Interfering With LUC Effectiveness Be Discovered

Regardless of whether the USACE, USACE authorized representative, or general public makes the initial discovery of LUC noncompliance, the USACE will be responsible for notifying DTSC within two weeks about the discovery of any conditions that interfere with LUC effectiveness. A two week period will provide the USACE ample time to perform a site visit and gather additional information on the situation before advising DTSC.

2.3.2.5 Annual LUC Audit Checklists Inspections

See Appendix C for a copy of the Annual LUC Audit Checklist form. The USACE, or authorized representatives, will perform annual visual inspections of both Tierrasanta and Mission Trails sites to confirm LUCs are performing as designed. The inspections will also require a review of the public education material provided to the City and County of San Diego, local schools and community associations and confirmation that the material is available and up-to-date. Authorized representatives for the USACE may be contractors, Tierrasanta Community Council and/or staff at MTRP.

USACE will incorporate year 1 through 4 Annual LUC Audit Checklists into the Five Year Review Report. USACE will review each Annual LUC Audit Checklist and determine if there are any findings in the audit that may impact the LUCs and take appropriate action.

2.3.2.6 Metrics to Measure Success of LUC Effectiveness

The annual LUC audit will be an important measure of successful LUC implementation. A discovery of a LUC element (*i.e.*, sign, website page, LUC related material provided to schools or other public organizations) that is not functioning as designed, should be considered unsuccessful for the review period.

Receipt of a LUC non-compliance report from an outside source (*i.e.*, resident or recreational user) that is checked by USACE, or authorized representative, and found to be in need of repair, should also be considered as unsuccessful/non-compliant for that particular LUC. This unsuccessful/non-compliant status will extend from the time the report was received until the condition is repaired. Examples of LUC non-compliance:

1. Warning/information signage in open spaces;
 - a. if a sign was not readable or visible for any reason.
2. Public/community education;
 - a. Electronic media/social media – if periodic review of the websites showed that the material was not viewable;
 - b. Schools – if educational materials provided to schools has not been distributed to students.
3. Notification of individuals (*e.g.*, contractors, homeowners) potentially contacting MEC;

- a. Building permits – if notifications when applying for building permits are not provided to prospective applicants.
4. Establishment of document repositories;
 - a. The repository does not have up-to-date documents;
 - b. The repository is not accessible during normal business hours (M-F 8am-5pm).

Other than annual monitoring, LUCs are not continually monitored in a formal manner and no physical control of the site is implied. Unsuccessful/non-compliant LUC implementation should not be assumed if it is learned that an individual disobeys direction on avoidance and reporting when a MEC item is encountered. If a report is received that a MEC item was discovered and improperly handled, the USACE will immediately review the LUCs and determine if a LUC modification is necessary.

2.3.2.7 Modification or Termination of LUCs

LUCs will be in place at the Tierrasanta and Mission Trails sites until the sites reach unlimited use and unrestricted exposure (UU/UE). Modification or termination of LUCs established in an approved ROD, or applicable decision document, can only be accomplished by one or both of the following:

- Mutual signed agreement by the USACE and DTSC
- An initiative during the Five-Year Review process

For example, if the site(s) is(are) restored to conditions that allow unrestricted land use, then LUCs will be removed via a mutually-signed agreement between the USACE and DTSC. The USACE will seek concurrence from DTSC to terminate LUCs. In addition, the USACE will seek concurrence before any anticipated action that may disrupt the effectiveness of the LUCs, or any action that may alter or be inconsistent with the land use assumptions or land uses described in the ROD, or applicable decision document. Any LUC termination will be reflected as an amendment to the ROD or applicable decision document, which will be entered into the administrative record.

2.4 Five-Year Review

The USACE will conduct Five-Year Reviews consistent with Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA) Section (§)121 and the National Contingency Plan (NCP; 40 CFR 300). CERCLA §121, as amended, states that:

“If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such Site in accordance with [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.”

The requirement was further interpreted in the NCP (300.430(f)(4)(ii) of Title 40 CFR 300), which states that:

“If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.”

The USACE will conduct an annual site inspection and a review every five years to verify compliance with the ROD remedial alternative and conformance to the remedy by all future users of the property. The purpose of a Five-Year Review is not to reconsider decisions made during selection of the remedy, as specified in the ROD, but to evaluate the implementation and performance of the selected remedy. As part of the Five-Year Reviews, the USACE will determine if the existing LUCs remain protective of human health and the environment. Evaluation of the remedy and the determination of protectiveness should be based on and sufficiently supported by data and observations.

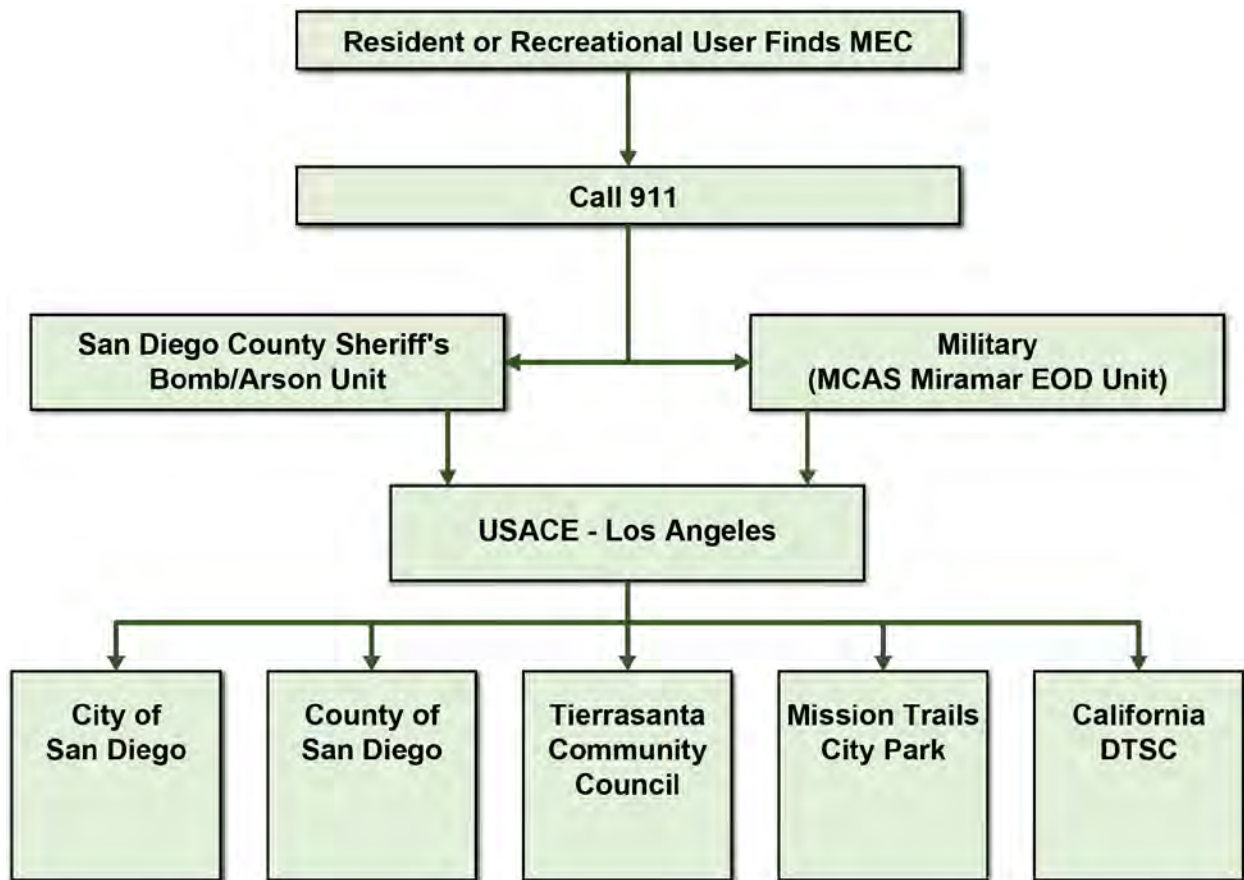
Detailed instructions and procedures for conducting Five-Year Reviews are provided in the U.S. Environmental Protection Agency (USEPA) Comprehensive Five-Year Review Guidance (USEPA 2001) and the USEPA Evaluation of Institutional Controls: Supplement to the

Comprehensive Five-Year Review Guidance (USEPA 2011). As of the date of publication of this LUCIP, the next five year review will be completed in 2021.

2.5 MEC Reporting

In the event that a MEC item is discovered on either of the Tierrasanta or Mission Trails sites, the communications that should be followed are shown on Figure 2-7. Calling 911 is the important notification that must happen, which is consistent with the information on the warning signs and the information available to users of MTRP (see Appendix B).

Figure 2-7. Communication Path for MEC Reporting



3.0 REFERENCES

United States Department of Defense (DoD). 2012. Defense Environmental Restoration Program (DERP), Manual 4715.20.

United States Army Corps of Engineer (USACE). 2014a. Munitions Response Site Priority Protocol. J09CA0067 Camp Elliot - 01 - MMRP - Camp Elliot – Tierrasanta.

USACE. 2014b. Munitions Response Site Priority Protocol. J09CA0067 Camp Elliot - 02 - MMRP - Camp Elliot – Mission Trails.

USACE. 2015. Remedial Investigation/Feasibility Study Report Former Camp Elliott, East Elliott MRS 01 – Range Complex (Project 03). Los Angeles District.

USACE. 2016. Third Five-Year Review Report, Former Camp Elliott- Tierrasanta, FUDS #J09CA006701 and Former Camp Elliott - Mission Trails, FUDS #J09CA006702, San Diego, San Diego County, California Los Angeles District. September 16.

United States Environmental Protection Agency (USEPA). 2001. Comprehensive Five-Year Review Guidance. Office of Emergency and Remedial Response, Washington, DC. OSWER No. 9355.7-038-P. June.

USEPA. 2011. Recommended Evaluation of Institutional Controls: Supplement to the “Comprehensive Five-Year Review Guidance”. OSWER Directive 9355.7-18.

APPENDIX A
DECISION DOCUMENT/RECORD OF DECISION

RECORD OF DECISION

FORMER CAMP ELLIOTT SAN DIEGO, CALIFORNIA

BACKGROUND

Pursuant to Council on Environmental Quality Regulations implementing the National Environmental Policy Act (NEPA), this document records the remedial action decision for the unexploded ordnance and related debris contamination caused by previous DOD-related activities on a portion of the Former Camp Elliott Training Range. A Feasibility Study of Remedial Action Alternatives and an Environmental Impact Statement have been prepared for the site. Camp Elliott Reservation operated as a tank, anti-tank, and artillery training/practice range during the World War II-Korean War era. A portion of the Former Camp Elliott Reservation that now encompasses Tierrasanta was declared surplus property and transferred to developers in 1968. The community currently comprises over 6,000 residential units plus ancillary office, commercial and public service facilities. The project area includes 1897 acres of remaining open space in the Tierrasanta community. To facilitate comparison and analysis of alternatives, the open space within the project area was divided into sub-areas A, B, C, D, E, and F.

DECISION

During the conduct of the study, it became apparent that no single alternative was appropriate for the entire project area. Therefore, the recommended plan or preferred alternative consists of a combination of alternatives for the various sub-areas. Based on the findings and conclusions of the Feasibility Study, Environmental Impact Statement, and associated correspondence received in response to coordination of this document I have decided that the plan as recommended below be conducted.

Sub-Area A: The plan for this area involves reacquisition and fencing by the U.S. Government of the 167 acres adjacent to the Naval Air Station Miramar, North of the project area. The reacquisition will be accomplished pursuant to a non-CERCLA authority.

Sub-Area B: The plan for this area, which encompasses 85 acres, involves fencing along the southern right-of-way line of the proposed State Route 52. Fencing would occur once the California Department of Transportation (CALTRANS) has obtained legal right-of-way. This will effectively isolate both Sub-Areas A and B from the rest of Tierrasanta to the South.

Sub-Area C: The plan for this area (Tierrasanta Norte residential development, approximately 358 acres) involves ordnance clearance sweeps using electromagnetic ordnance locators, after selective manual removal of vegetation, in areas to remain as permanent open space (approximately 75 acres), and ordnance clearance sweeps using electromagnetic ordnance locators in the remaining undeveloped area disturbed by the developer.

Sub-Area D: The plan for this area (Regency Hill residential development, 58 acres) involves an ordnance clearance sweep, using electromagnetic ordnance locators, of approximately 23 acres which surround the developing area and form the faces for the mesa, and no action in the remaining area disturbed by the development.

Sub-Area E: The plan for this area (approximately 454 acres located along the eastern project boundary) involves 209 acres, presently U.S. Navy owned, and is not eligible for funding under the DERP formerly used sites program, and 245 acres where 3 separate actions are planned. The plan for the 245 acres is as follows: approximately 56 acres, previously burned, involves ordnance clearance using electromagnetic ordnance locators; 129 acres involves ordnance clearance using electromagnetic ordnance locators after selective manual removal of vegetation; and 60 acres involves ordnance clearance sweeps using electromagnetic ordnance locators and controlled burning for vegetation removal.

Sub-Area F: The plan for this area (approximately 774 acres of remaining open space in canyons adjacent to developed residential or commercial areas) involves ordnance clearance using electromagnetic ordnance locators after selective removal of brush by manual cutting and removal. This area will be given first priority for implementation.

OTHER ACTION

In addition to the plans identified above, a follow-up ordnance test sweep will be conducted one year after the initial clearance effort to monitor and/or verify the clearance effectiveness. Follow-up ordnance sweeps will be conducted based on the results of the one year follow-up test sweep efforts. Also efforts will be made to expand educational programs on unexploded ordnance within the community.

ALTERNATIVES CONSIDERED

In arriving at the decision to implement the various preferred remedial actions, several alternatives were considered. They were as follows: (1) Ordnance clearance using electromagnetic ordnance locators after selective manual removal of vegetation, (2) Ordnance clearance using electromagnetic ordnance locators after prescribed burning, (3) Limitation of certain types of development and/or placement of additional development restrictions, (4) Visual sweeps in conjunction with sub-surface electromagnetic detection, where possible without vegetation removal, (5) Restriction of access through signs and fencing, (6) Reacquisition of property by the Government, and (7) No action.

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. Environmental issues included biological resources, cultural resources, land-use, esthetics, air quality, water quality/erosion, recreation, socioeconomics, safety, and construction impacts. Alternatives that were considered to be environmentally preferable are alternatives listed in items 3, 4, 5, 6, and 7 above.

Based on the primary objective of the project (to protect public health, safety, and general welfare) and the alternatives analyses, the preferred alternatives listed in items 1 and 2 above are recommended for most sub-areas. Even though these alternatives were the more costly and presented significant, but short term, adverse impacts to the vegetation and wildlife, it was not technically feasible to effectively locate and remove ordnance items from the areas without the associated short term impacts.

MITIGATION

All practicable means to avoid or minimize environmental harm from the selected alternatives have been adopted. A preliminary cutting plan which minimizes impacts to vegetation has been developed. Prior to implementation, a comprehensive cutting plan will be prepared to assure that all feasible measures to minimize environmental impacts are incorporated into the project. A preliminary prescribed burn plan, considering fire intensity, frequency, duration, species composition, size, pattern, season, extent, weather, fuel, soil and site of the burn, and which minimizes impacts to vegetation, has been developed. Prior to implementation, a comprehensive burn plan will be prepared to assure that all feasible measures to minimize impacts are incorporated into the project.

Vernal pools which may contain the Federally endangered San Diego mesa mint will be avoided in any fence construction or prescribed burn activity. Prior to the unlikely event that vernal pool complexes containing the mesa mint need to be manually cleared of vegetation, coordination with the USFWS pursuant to the Endangered Species Act will be undertaken. Coordination with the USFWS will be conducted regarding those vernal pools containing mesa mint and ordnance contamination.

Every effort will be made to preserve the sensitive southern oak woodland, sycamores, and scrub oaks. All willow and post oak woodlands will be flagged by a biologist during project implementation. Precautions to keep these areas in an undisturbed condition will be taken. A qualified biologist will be on-site during project implementation to minimize adverse impacts on biological resources and to enforce the environmental mitigation commitments of the project.

Vehicle access within the project area will be limited to existing paved and dirt roads and foot paths. Cultural resource sites were found in Sub-areas A, B, and E. No impact from construction will occur in sub-areas A and B. A qualified archaeologist will be present during project implementation in sub-area E to assure that significant impacts to the site are avoided.

PUBLIC INVOLVEMENT

A thorough public involvement program has been conducted throughout the site evaluation process. Public concerns, such as safety, socioeconomic and environmental effects have all been carefully considered.

ENVIRONMENTAL COMPLIANCE

The environmental documentation has been prepared in accordance with NEPA. The project has appropriately considered all applicable environmental laws, executive orders, and other policies as required.

AUTHORITY

My decision as detailed above has been carefully made in consideration of environmental impacts and other essential parameters as described. The goals of the Defense Environmental Restoration Program for formerly used sites, public safety, fiscal responsibility, and environmental protection are best served by selection of the preferred alternatives presented in this document.

AUG 19 1988

Date



William H. Parker, III, P.E.
Deputy Assistant Secretary of Defense
(Environment)

APPENDIX B

PUBLIC EDUCATION INFORMATION AVAILABLE AT MTRP



Mission Trails Regional Park - VOLUNTEER FACT SHEET -

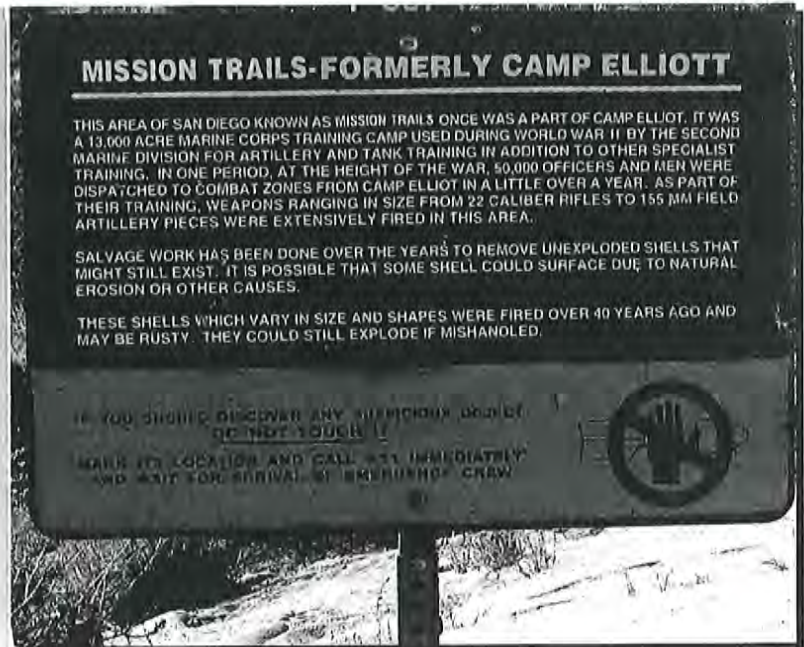
What You Should Know

Some areas of the Mission Trails Regional Park (MTRP) once were a part of the former Camp Elliott, a tank, anti-tank and artillery training/practice range for U.S. military forces from World War I to the Korean War. Camp Elliott closed in 1960, and at that time, some of the property was transferred to the U.S. Air Force and the U.S. Navy reported 13,277 acres as excess to the General Services Administration for disposal. Later, the excess property was acquired by the City of San Diego, the San Diego Unified School District, developers and private parties. The Mission Trails Regional Park was conveyed to the City of San Diego by quitclaim deed on 10 January 1964.

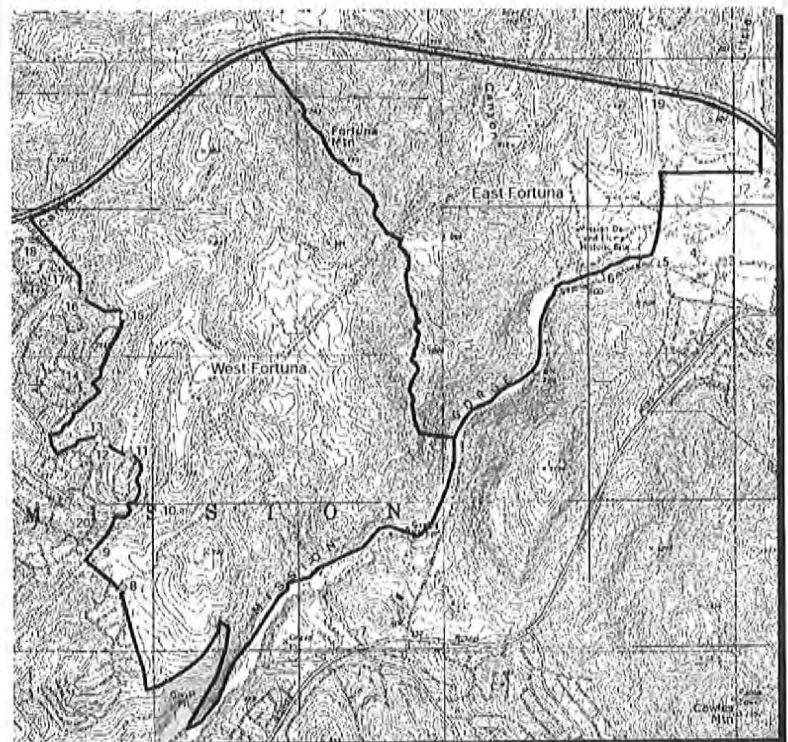
There have been several surface and subsurface unexploded ordnance (UXO)/munitions and explosives of concern (MEC) clearance operations in the area to minimize the potential for UXO/MEC hazards. The last UXO/MEC clearance in the MTRP area was completed in 1993.

While the chances of encountering UXO or MEC items are slim, the risk does exist. As a Volunteer in the Mission Trails Regional Park, you should be informed of the former military use of the area and be particularly cautious of any metal items found while digging.

If you find an item that you suspect to be a UXO or MEC item, DO NOT touch it. Mark the area near its location, move slowly and carefully to a safer area, and then call 911 to report location of the suspect item(s).



Mission Trails UXO/MEC Warning Sign.



Mission Trails Regional Park that was once part of Camp Elliott Training Grounds

Mission Trails Regional Park – VOLUNTEER FACT SHEET-



105 mm
~15" long



75 mm
~8" long



37 mm
~5" long

Examples of UXO and
their approximate
lengths (in inches)

Suspicious items can be encountered while:

- Installing posts for fencing projects
- Digging foundations
- Excavating and installing utilities (cables, piping, etc.)

Suspicious items can look like :

- A baseball
- Rusted car mufflers
- Old pipes
- Oversized bullets

Suspicious items can be found:

- Inches below the surfaces
- Underneath parking lots or roads
- Partially unearthed due to weather and erosion
- On land or in water

No matter what they look like, how old they are, or where they are found, UXO/MEC items should ALWAYS be considered a safety hazard!

In 1993, more than 150 high explosive tank shells were unearthed and properly disposed of because an alert construction worker reported suspicious metal objects that were being unearthed when they were digging a trench in a former training area. Protect yourself, your employees and your colleagues by following the 3 Rs of UXO Safety:

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 on—do not run.

Report

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

This fact sheet has been developed to assist you in meeting the OSHA Hazard Communication Standard (Right to Know). Inform your workers about these hazards before digging in the Mission Trails Regional Park. We also recommend that you clearly post on your jobsite the UXO Safety information provided with your construction permit. If you find any suspicious metal items, immediately stop digging, remove workers from the immediate area and call 911 to report the findings to local authorities.



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

Additional information regarding the former Camp Elliott can be found at:
www.spl.usace.army.mil

For more safety information visit the UXO Safety Education Website at:
<https://www.denix.osd.mil/uxosafety>

and the Formerly Used Defense Sites Program Website at:
https://environment.usace.army.mil/what_we_do/fuds

UXO Background Information

Former Camp Elliott offers a rich culture and natural history to residents of California and visitors for a variety of opportunities to enjoy the outdoors. Hiking, camping, sightseeing, gardening, horseback riding and fishing are only some of the reasons that Californians and their guests treasure the state.

California has also played a vital role in our national defense, since 1917. During World War II, the military conducted extensive training to prepare our Nation's forces for combat and to protect us from outside attacks.

Key to meeting this national defense role was the military's conduct of live-fire training with military munitions. Because of this training and for other reasons, **it is possible to encounter munitions, on both land and in water.** When encountered by the public, these munitions present a potential hazard that can easily end in tragedy.

Munitions come in a variety of sizes and shapes, may be found on land or in water, and might be easy or hard to recognize. **UXO should always be considered dangerous no matter what they look like.** They can explode if you disturb or handle them.

To protect yourself, your family, your friends and your neighbors learn and follow the 3Rs (Recognize, Retreat, Report).

NEVER TOUCH, DISTURB OR MOVE A MUNITION



Example projectiles, similar to what has been found in former Camp Elliott



For more information, visit the UXO Safety Education Website at:

<https://www.denix.osd.mil/uxosafety>

and the Formerly Used Defense Sites Program Website at:

https://environment.usace.army.mil/what_we_do/fuds

Further information about the former Camp Elliott can be found in the information repositories at:

San Diego City Library, Tierrasanta Branch

4978 La Cuenta Drive
San Diego, CA 92101
(619) 573-1384

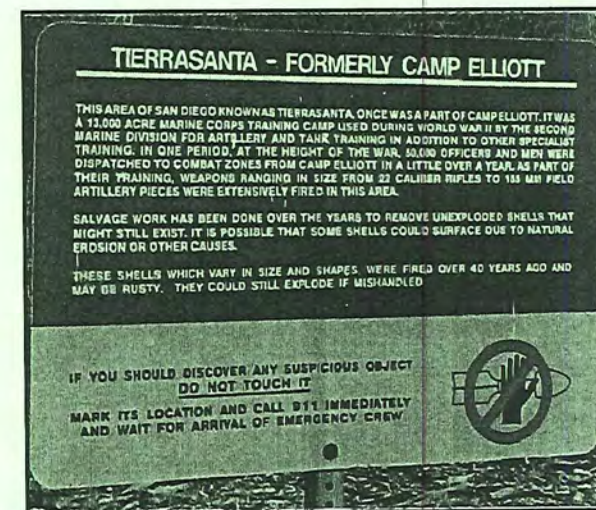
San Diego County Library, Santee Branch

9225 Carlton Hills Blvd
Santee, CA 92071
(619) 448-1863



US Army Corps of Engineers, Los Angeles District
Public Affairs Office
915 Wilshire Blvd, Suite 980
Los Angeles, CA 90071
Phone: 213- 452-3717

Explosives Safety Guide for the Former Camp Elliott



*Awareness Education on Unexploded
Ordnance (UXO)/
Munitions and Explosives of Concern
(MEC)*

RECOGNIZE

Recognizing that you may have encountered a munition is one of the most important steps in reducing the risk of injury or death. UXO/MEC items present a risk to anyone in the vicinity and should never be touched, moved or disturbed. UXO/MEC items:

- May be various sizes and shapes
- Some may look new, while others look old and rusty
- Some may look like bullets or bombs; others look like pointed pipes, soda cans, balls, or even an old car muffler
- May be easy or difficult to identify
- Are dangerous regardless of size or age

UXO/MEC items and their components may contain high explosives, propellants or pyrotechnics and, in rare cases, chemical agents. **Remember, munitions are designed to injure, maim or kill people and to destroy equipment in times of war.** All UXO/MEC items and suspect UXO/MEC items, whether whole or in pieces, should be considered extremely dangerous.

UXO/MEC items may be:

- Found almost anywhere
- Not clearly visible on the surface
- Underwater, in lakes, streams or the ocean
- Exposed by erosion after heavy rains
- Difficult to recognize, because they can be partially or completely hidden by dirt, mud, rust, ant nests or other animal life, embedded in rock formations or covered with vegetation.

Warning signs often mark areas where UXO/MEC may be present.



37mm, 75mm, 76mm, and 8 inch projectiles

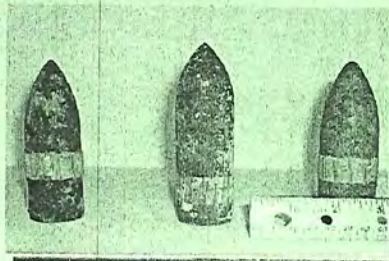
RETREAT

The best way to avoid danger is to stay out of areas marked with warning signs or charted as restricted areas. Hiking or sightseeing on or near battlegrounds or training areas can lead to an encounter with munitions that, depending on your actions, may prove deadly.

*** WARNING ! Collecting UXO/MEC Items as Souvenirs is Dangerous and Has Caused Serious Injury and Death**

UXO/MEC Items are not to be collected as souvenirs; they do not become safer with age, they often become more dangerous. Retrieving a UXO/MEC item for a keepsake presents a real danger to you and your family. Should you or your family have a souvenir that is or may be a UXO/MEC item, please call 911 and **report it before someone gets hurt.**

Avoid death or injury when you may have encountered a UXO/MEC item; carefully retreat from the area by retracing your steps.



Examples of UXO/MEC items

Never:

- Touch, move or disturb a suspect or identified UXO/MEC item
- Go near UXO/MEC items; some are sensitive to changes in temperature, movement or pressure
- Throw anything at a UXO/MEC item (it can become unstable over time and explode with the slightest touch)
- Explore or scavenger hunt in areas where UXO/MEC items may be or are confirmed to be present.

REMEMBER: If you encounter what you believe to be a UXO/MEC item, do not touch, move or disturb it. Instead, immediately and carefully leave, retracing your steps out of the area in the same direction by which you entered it. Once safely out of the area, mark the path with a piece of clothing if possible.

REPORT

Protect yourself, your family, your friends and your neighbors by immediately reporting suspect or identified UXO/MEC items to the police. Tell children to immediately report any suspicious items to the police, a teacher, their parents or an adult. Provide as much information as possible about what you saw and where you saw it. This will help the police and Explosive Ordnance Disposal (EOD) personnel find, evaluate and destroy the UXO/MEC item.

If you believe you have encountered a UXO/MEC item, call 911 and report the following:

- The area where you encountered it
 - A general description of the munition, to include:
 - Its size
 - Its shape
 - Visible markings
- ⇒ Place a landmark near the UXO/MEC item and
- Note the name or location of the area where you saw the UXO/MEC item; and
 - If you marked the area near the suspect munition, provide a description of how you marked it (e.g., with a piece of clothing).
 - Your exact position (use the World Geodetic System 1984 [WGS-84], if known)
 - If your exact position is unknown, give its "popular" name or approximate coordinates or a range and bearing from a charted feature
 - The activity (e.g., hiking, bike or horseback riding) you were conducting

The best thing to do is leave a UXO/MEC item where you found it.



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.



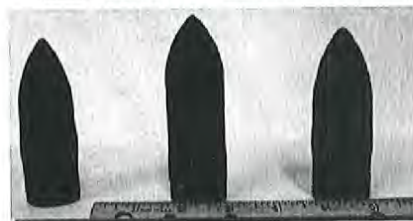
Report - Call 911!

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



- Recognize
- Retreat
- Report



Follow Sergeant Woof as he shows you what to do if you see ammo.

To parents and teachers:

This coloring book was developed to promote safety awareness to children who may encounter remnants of military munitions (ammo) while playing or exploring. Discuss with your children any areas where the military may have used munitions or installations on which the military currently trains. You are encouraged to teach your children the 3Rs (Recognize, Retreat, Report) safety message.

Recognize ○ Realize when you may
○ have found ammo

Retreat ○ Do not touch, move, or
○ disturb ammo — carefully
leave the area, but do not run

Report ○ Tell a parent or other adult
○ to call 911

For more information, visit www.denix.osd.mil/uxo

RECOGNIZE

Sergeant Woof sees old ammo!



RETREAT



Don't touch it!

Sergeant Woof turns and follows his tracks away from the danger.

REPORT

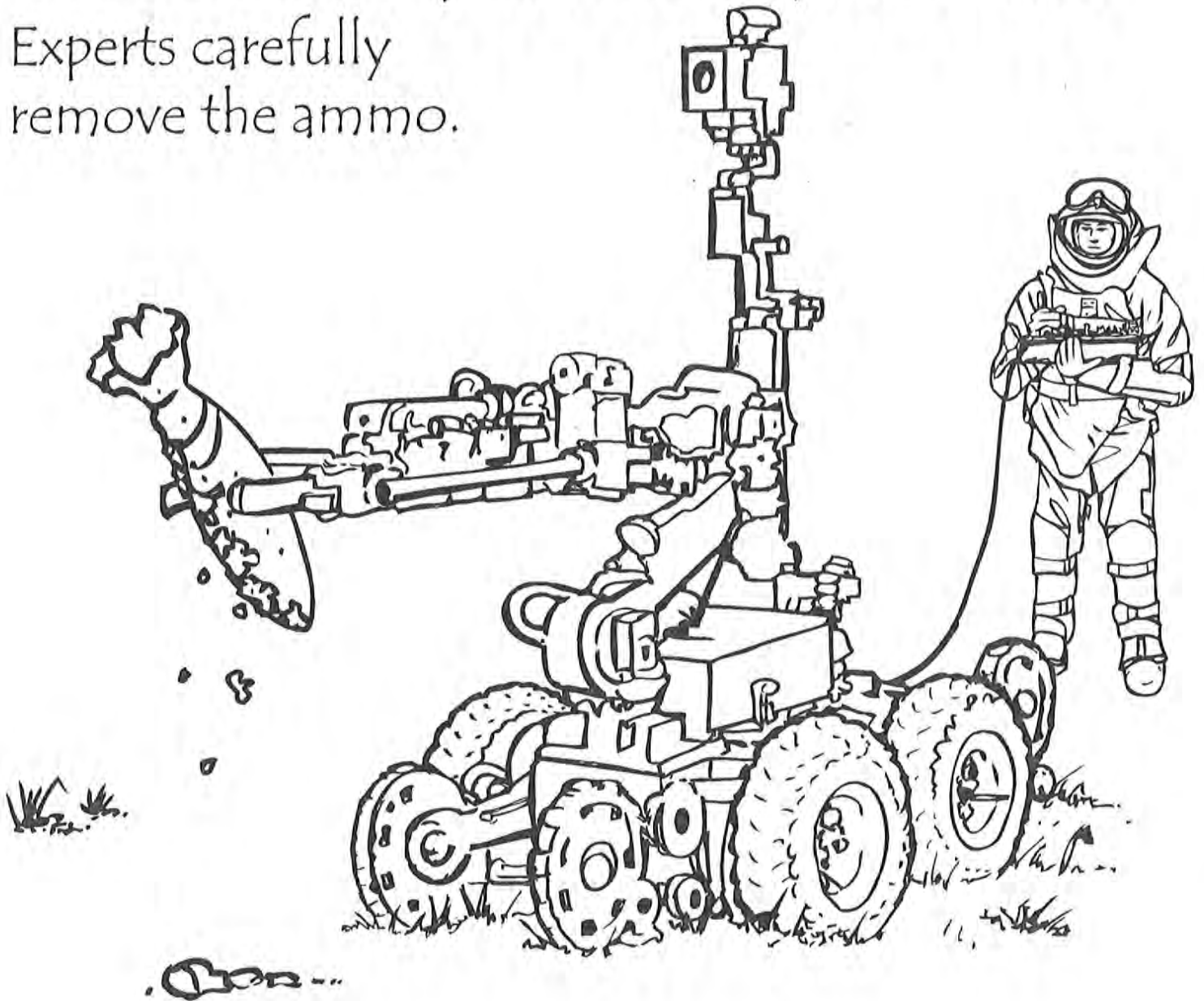
Sergeant Woof, with help from an adult, calls 911 and describes what he saw and where he saw it.



Sergeant Woof has saved the day!
He remembered the 3Rs of explosives safety:

RECOGNIZE, RETREAT, REPORT

Experts carefully
remove the ammo.



Help Sergeant Woof keep your neighborhood safe by quickly reporting any strange items you see.

RECOGNIZE, RETREAT, REPORT



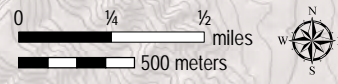
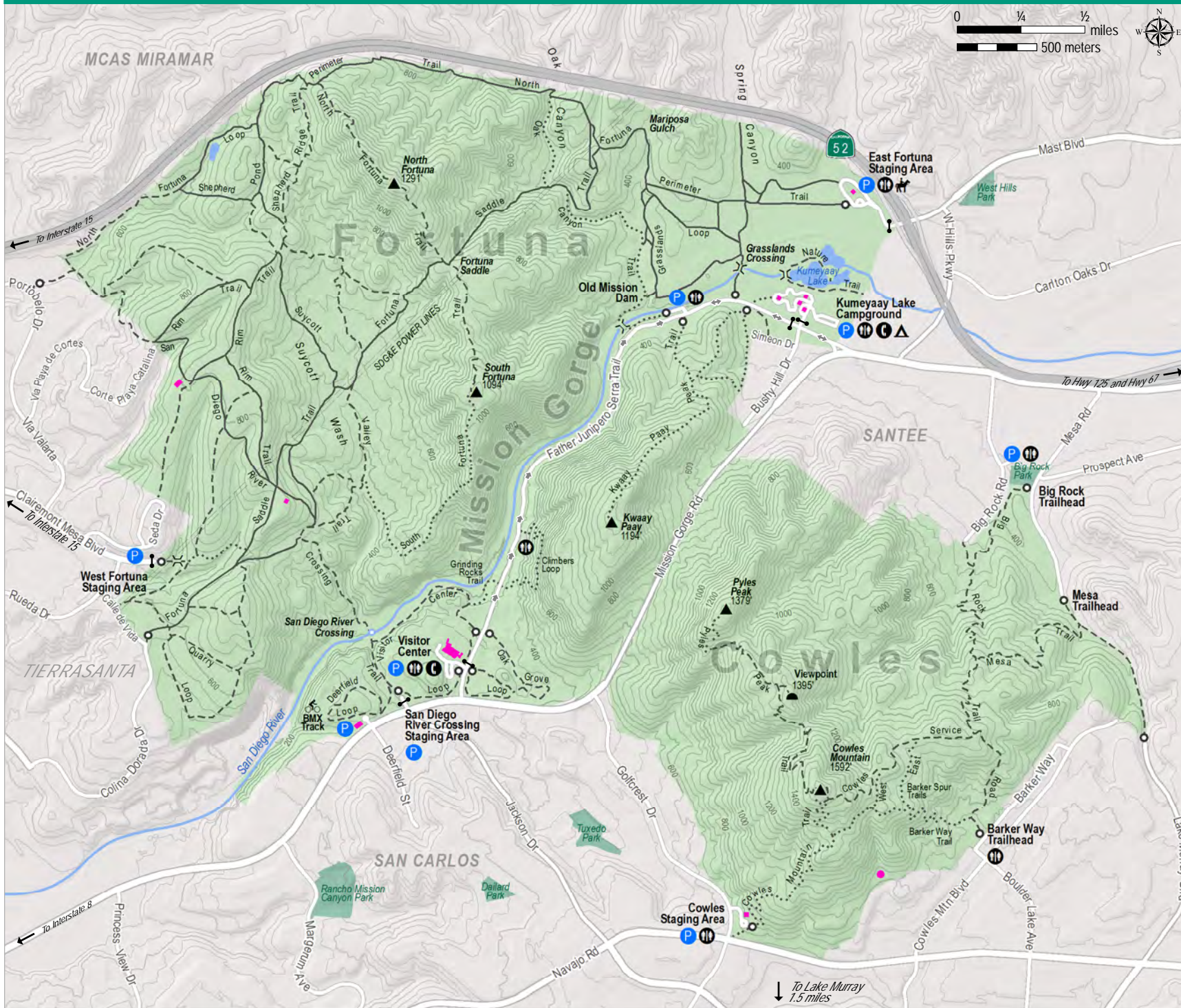
Sergeant Woof, our explosives safety expert says,
follow the 3Rs:



- Recognize
- Retreat
- Report

Mission Trails Regional Park: Fortuna, Mission Gorge, Cowles

TRAIL MAP



Legend

- Parking
- Restrooms
- Telephone
- Trailhead
- Bridge
- Stream crossing *seasonal*
- Elevation contour *20-foot interval*
- Multi-use trail
- Hiking-biking trail
- Hiking-only trail
- One Way
- Both Ways
- Gate *see reverse side for locking times*
- Power lines
- Building/Structure
- Community Park
- Mission Trails Regional Park



Please stay on designated trails
Map prepared by the City of San Diego Department of Park & Recreation, Open Space Division. Last update: 1/25/2016. Sources: MTRP Master Plan Update 2014, SanGIS/SANDAG 2015, USGS 2015.



MISSION TRAILS REGIONAL PARK



Recommended Hikes

CATEGORIES * For your safety, always wear hiking shoes with good tread on trails.

- 1 = EASY:** Mostly level terrain with some gradual inclines; suitable for beginners.
- 2 = MODERATE:** Medium to long distances with good inclines and possible switchbacks. Suitable for physically fit people.
- 3 = DIFFICULT:** Long distances and/or greatest gain/inclines. May require climbing and climbing over boulders. Suitable only for experienced hikers in excellent physical condition.

FORTUNA REGION	Category	Distance (miles)	Elev. Gain
Fortuna Saddle via Visitor Center	3	2.7	740'
Fortuna Saddle via W. Fortuna Stg. Area	3	1.8	440'
Suycott Wash/South Fortuna Mtn.	3	1.2+	734'
North/South Fortuna Mtn. Loop via Fortuna Saddle	3	4.1+	1151'
Rim Trail Loop via W. Fortuna Stg. Area	2	1.5+	300'
Quarry Loop via W. Fortuna Stg. Area	2	1.0+	245'
Shepherd Pond via W. Fortuna Stg. Area	2	2.3	313'
Grasslands Loop	1	1.1+	Minimal
North Fortuna Mtn. via Grasslands Crossing	3	2.0	1198'
Fortuna Saddle via E. Fortuna Stg. Area	3	2.4	662'
Kumeyaay Lake Nature Trail	1	1.0	Minimal
Fortuna Mtns. Loop via Grasslands Crossing	3	3.5+	1932'
MISSION GORGE REGION			
Visitor Center Interpretive Loop Trail	1	0.5+	206'
Father Juniper Serra Trail	1	1.8	47'
Oak Grove Loop Trail	1	0.5	97'
Oak Canyon Trail	2	1.7	240'
Climbers Loop Trail	3	0.5	407'
Deerfield BMX Loop Trail via Visitor Center	1	0.5+	182'
Kwaay Paay Peak Trail via Old Mission Dam	3	0.5	880'
COWLES MOUNTAIN REGION			
Cowles Mtn. summit via Golfcrest Drive	3	1.5	950'
Cowles Mtn. summit via Service Rd.	3	1.6	870'
Cowles Mtn. summit via Big Rock Park	3	2.5	1192'

Rules and Regulations

- For your safety, stay on authorized trails at all times; refer to trail map on other side.
- Obey all posted speed limits. Speed not to exceed 15 mph (5 mph in parking lots and Kumeyaay Lake Campground) unless otherwise posted. SDMC 63.0102 (b) (20)
- Motor vehicles are not permitted on dirt roads, trails or paths. CVC 23127
- All natural features (plants, soil, rocks, etc.), may not be removed, damaged or destroyed. SDMC 63.0102 (b) (4)
- Taking, wounding or disturbing animals is prohibited by law. SDMC 63.0102 (b) (10)
- Fishing is permitted under CA Fish and Game (now Wildlife) codes, with appropriate license for those 16 years of age and older. FGC 7145 (a)
- Possession of fireworks, firearms or weapons of ANY kind are prohibited (including paint-ball guns, sling shots, air rifles, pellet guns, archery devices, etc.) SDMC 63.08
- Fires of any kind (including the throwing of a lighted match or cigarette) are prohibited. SDMC 63.0102 (b) (11) except in fire boxes at the campground and park barbecue grills.
- Smoking and vaping (the use of electronic cigarettes) in park is illegal. SDMC 43.1002 (g)
- Overnight camping is permitted only at the Kumeyaay Lake Campground; anywhere else in the park is prohibited. SDMC 63.0102 (b) (12)
- Bicyclists must keep their speed at 10 mph or less and yield to hikers and equestrians. Hikers must also yield to equestrians.
- All dogs must be kept on leash (not more than 8 feet) and under the handler's control at all times. SDMC 63.0102 (b) (2)
- Dog waste must be disposed of immediately in trash cans. SDMC 44.0304.1
- Anyone under 18 years of age is required to wear a helmet while using a bicycle, scooter, skateboard, roller-skates, etc. CVC 21212 (a)
- Alcoholic beverages are illegal in the park. SDMC 56.54 (a)
- Glass containers of ANY kind are also prohibited. SDMC 63.0102 (b) (7)
- Solicitation, posting of handbills or conducting business of any kind in the park is illegal. SDMC 63.0102 (b) (1)
- All posted park rules and regulations must be followed. SDMC 63.20.13
- Playing any game of ball in the park is prohibited. SDMC 63.0102 (b) (17)
- Groups of 50 or more must obtain a permit before conducting any activity in the park.

MISSION TRAILS REGIONAL PARK VISITOR & INTERPRETIVE CENTER
 ONE FATHER JUNIPERO SERRA TRAIL, SAN DIEGO, CA 92119
Open daily 9 a.m.- 5 p.m., 619-668-3275 or 619-668-3281, www.mtrp.org
 (Closed Thanksgiving, Christmas and New Year's Day)

DON'T GET LOCKED IN!

If you plan on staying past closing time, park **outside** of the gated areas.
 Gates open at **8 a.m.** & close at **5 p.m.** (Nov.-March) & **7p.m.** (April-Oct.)

APPENDIX C
ANNUAL LAND USE CONTROL AUDIT CHECKLIST

TIERRASANTA & MISSION TRAILS
ANNUAL LAND USE CONTROL AUDIT CHECKLIST

Annual Period: Jan 1 - Dec 31, 20_____

Inspection Team/Affiliation: _____

Date of Inspection(s): _____

Names of persons conducting audit: _____

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

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: _____

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

Y N

If no, explain why: _____

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: _____

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

Y N

If no, explain why: _____

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

Y N

If no, explain why: _____

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: _____

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

Y N

If no, explain why: _____

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: _____

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: _____

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: _____

Form completed by: _____ **Date:** _____