



**Draft Program Environmental Impact Report  
for the Mission Trails Regional Park  
Master Plan Update**

City of San Diego  
Project No. 349988  
SCH No. 2014041011  
January 20, 2017



**PLANNING DEPARTMENT**

Date of Notice: **January 20, 2017**

PUBLIC NOTICE OF A

DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT (PEIR)

WBS No. S-01014.02.06

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**PUBLIC NOTICE:** The City of San Diego Planning Department has prepared a draft PEIR for the following project and is inviting your comments regarding the adequacy of the document. The draft PEIR and associated technical appendices have been placed on the City of San Diego Planning Department website under the heading "Draft CEQA Documents" and can be accessed using the following link:

<https://www.sandiego.gov/planning/programs/ceqa>

The DEIR public notice has also been placed on the City Clerk website at:

<http://www.sandiego.gov/city-clerk/officialdocs/notices/index.shtml>

**Your comments must be received by March 8, 2017** to be included in the final document considered by the decision-making authorities. Please send your written comments to the following address: **Myra Herrmann, Environmental Planner, City of San Diego Planning Department, 1010 Second Avenue, MS 413, San Diego, CA 92101** or e-mail your comments to [PlanningCEQA@sandiego.gov](mailto:PlanningCEQA@sandiego.gov) with the Project Name and Number in the subject line. Please note only written comments, received either via US Mail, hand-delivered, or via email, will be considered official comments in the Final EIR.

**PROJECT NAME:** Mission Trails Regional Park Master Plan Update/ Natural Resources Management Plan/Community Plan Technical Amendments

**PROJECT No.** 349988 / SCH No. 2014041011

**COMMUNITY AREAS:** East Elliott, Navajo, Tierrasanta, Rancho Encantada

**COUNCIL DISTRICTS:** 5 & 7

**APPLICANT:** City of San Diego, Planning Department

**PROJECT DESCRIPTION: CITY COUNCIL APPROVAL and ADOPTION** of the Mission Trails Regional Park Master Plan Update (MPU), Natural Resources Management Plan (NRMP) and Community Plan Technical Amendments (collectively, the Plans) for the Mission Trails Regional Park (Park). The Plans have been developed as an integrated set of management guidelines for the Park, with the MPU focusing on public access and recreation and the NRMP focusing on natural resources. The Plans were prepared concurrently in order to coordinate the recommendations and management actions for the six (6) areas that comprise MTRP – Lake Murray, Cowles Mountain, Mission Gorge, Fortuna Mountain, East Elliott, and West Sycamore. The East Elliott and West Sycamore areas are the park expansion areas further described in the Plans and Draft PEIR.

The MPU provides updated recommendations to the 1985 Master Plan (Recommendations). The Recommendations range from broad overarching policy and management-related topics that affect the entire Park, to specific physical improvements within the areas listed above. The Recommendations are focused on improving overall land/resource management, the safety and sustainability of recreational trails, improving recreational access, and eliminating conflicts between recreational uses and natural habitat.

The MPU identifies conceptual projects that may be implemented after adoption of the Plans. These are referred to as “subsequent projects” throughout the PEIR. Such projects recommended by the MPU include (but are not limited to) trail improvements, trailheads, picnic and shade areas, restrooms, parking lots, and interpretive overlooks. Subsequent projects identified in the MPU are conceptual, including trail alignments discussed below. Subsequent projects also include recommendations for the proposed location of improved and additional parking areas. The MPU does not provide for any specific location or design for subsequent projects that may potentially be implemented. These subsequent projects would require further design and review as they are proposed.

The NRMP sets forth adaptive management actions to ensure long-term, viable populations of sensitive species and habitats within the Park. It also sets forth protocols (e.g., data collection methods, success criteria) to evaluate the effectiveness of these management actions. The NRMP fulfills a requirement identified in the City’s Multiple Species Conservation Program (MSCP) Subarea Plan to set forth an adaptive management framework in order to protect sensitive biological resources at the Park. The NRMP also details minimization measures that would be required to be followed prior to implementation of any future project in the Park.

The project also includes amendments to the Navajo, Tierrasanta, and East Elliott Community Plans, as well as to the Rancho Encantada Precise Plan. The amendments are required to update or correct maps and community plan language where the plans reference outdated information regarding the Park and the Master Plan. These amendments would ensure that the future facilities proposed under the MPU are consistent with the respective Community Plans and/or Precise Plan and that any policy recommendations with regards to the management of the Park are consistent with updated policies in the Plans or simply make reference to the Plans.

**PROJECT LOCATION:** The area of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) for Mission Trails Regional Park (Park) is located near the center of metropolitan San Diego, 8 miles northeast of Downtown San Diego, midway between the Pacific Ocean and the Cleveland National Forest. The Park is almost entirely within the City; however, it is within or near several jurisdictions, including the Cities of La Mesa, Santee, and El Cajon to the east; the City of Poway to the north, and unincorporated San Diego County to the northeast. With the addition of the proposed expansion areas, the Park would be bisected by Marine Corps Air Station Miramar. The existing 5,830-acre Park is split into four areas: Lake Murray, Cowles Mountain, Mission Gorge, and Fortuna Mountain. Two expansion areas—East Elliott and West Sycamore—would be incorporated into the official Park boundaries after approval of the Plans and bring the Park’s total area to approximately 9,780 acres.

The Mission Trails Regional Park Master Plan Update and Natural Resources Management Plan can be found on at the following location:

[http://www.mtrp.org/master\\_plan](http://www.mtrp.org/master_plan)

**Recommended Finding:** The draft PEIR concludes that the proposed project would result in significant environmental impacts in the following areas: **Land Use (MSCP/MHPA), Biological Resources, Historical and Tribal Cultural Resources, Human Health/Public Safety/Hazardous Materials, Hydrology/Water Quality, Paleontological Resources, Traffic, and Public Utilities** and can be mitigated below a level less than significant. All other impacts analyzed in this EIR were found to be less than significant.

**Availability in Alternative Format:** To request this Notice, Draft PEIR and/or supporting documents in alternative format, call the Planning Department at (619) 235-5200 (800) 735-2929 (TEXT TELEPHONE).

**Additional Information:** For environmental review information, contact Myra Herrmann at (619) 446-5372 or via email at [mherrmann@san Diego.gov](mailto:mherrmann@san Diego.gov). The Draft EIR and supporting documents may be reviewed, or purchased for the cost of reproduction, at the Planning Department. For information regarding public meetings/hearings on this project, contact the Project Manager, Jeff Harkness, at (619) 533-6595 or via email at [jharkness@san Diego.gov](mailto:jharkness@san Diego.gov).

This notice was published in the SAN DIEGO DAILY TRANSCRIPT and distributed on **January 20, 2017**.

Alyssa Muto  
Deputy Director  
Planning Department

## DRAFT

# ENVIRONMENTAL IMPACT REPORT

Project No. 349988

SCH No. 2014041011

**SUBJECT: CITY COUNCIL APPROVAL and ADOPTION** of the Mission Trails Regional Park Master Plan Update (MPU), Natural Resources Management Plan (NRMP) and Community Plan Technical Amendments (collectively, the Plans) for the Mission Trails Regional Park (Park). The Plans have been developed as an integrated set of management guidelines for the Park, with the MPU focusing on public access and recreation and the NRMP focusing on natural resources. The Plans were prepared concurrently in order to coordinate the recommendations and management actions for the six (6) areas that comprise MTRP – Lake Murray, Cowles Mountain, Mission Gorge, Fortuna Mountain, East Elliott, and West Sycamore. The East Elliott and West Sycamore areas are the park expansion areas further described in the Plans and Draft Program Environmental Impact Report (PEIR).

The MPU provides updated recommendations to the 1985 Master Plan (Recommendations). The Recommendations range from broad overarching policy and management-related topics that affect the entire Park, to specific physical improvements within the areas listed above. The Recommendations are focused on improving overall land/resource management, the safety and sustainability of recreational trails, improving recreational access, and eliminating conflicts between recreational uses and natural habitat.

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The NRMP sets forth adaptive management actions to ensure long-term, viable populations of sensitive species and habitats within the Park. It also sets forth protocols (e.g., data collection methods, success criteria) to evaluate the effectiveness of these management actions. The NRMP fulfills a requirement identified in the City’s Multiple Species Conservation Program (MSCP) Subarea Plan to set forth an adaptive management framework in order to protect sensitive biological resources at the Park. The NRMP also details minimization measures that would be required to be followed prior to implementation of any future project in the Park.

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The project area is located near the center of metropolitan San Diego, 8 miles northeast of Downtown San Diego, midway between the Pacific Ocean and the Cleveland National Forest. The Park is almost entirely within the City; however, it is within or near several jurisdictions, including the Cities of La Mesa, Santee, and El Cajon to the east; the City of Poway to the north, and unincorporated San Diego County to the northeast. With the addition of the proposed expansion areas, the Park would be bisected by Marine Corps Air Station Miramar. The existing 5,830-acre Park is split into four areas: Lake Murray, Cowles Mountain, Mission Gorge, and Fortuna Mountain.

Two expansion areas—East Elliott and West Sycamore—would be incorporated into the official Park boundaries after approval of the Plans and bring the Park’s total area to approximately 9,780 acres.

**Applicant:** City of San Diego, Planning Department

**ENVIRONMENTAL DETERMINATION:**

Based on the analysis conducted for the project described above, the City of San Diego has prepared the following PEIR in accordance with the California Environmental Quality Act (CEQA). The analysis conducted identified that the project could result in significant impacts to the following issue area(s): **Land Use (MSCP/MHPA), Biological Resources, Historical (including Built-Environment and Archaeological Resources) and Tribal Cultural Resources, Human Health/Public Safety/Hazardous Materials, Hydrology/Water Quality, Paleontological Resources, Traffic, and Public Utilities.**

The purpose of this document is to inform decision-makers, agencies, and the public of the significant environmental effects that could result if the project is approved and implemented, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

**PUBLIC REVIEW DISTRIBUTION:**

The following agencies, organizations, and individuals received a copy or notice of the Draft PEIR and were invited to comment on its accuracy and sufficiency. Copies of the Draft PEIR, the Mitigation Monitoring and Reporting Program and any technical appendices may be reviewed in the offices of the Planning Department, or purchased for the cost of reproduction.

**Federal Government**

- Federal Aviation Administration (1)
- Naval Facilities Southwest - Environmental Planning Division Naval Facilities (12)
- U.S. Environmental Protection Agency (19)
- U.S. Fish and Wildlife Service (23)
- MCAS Miramar Air Station (24)
- U.S. Army Corps of Engineers (26)
- U.S. Army Corps of Engineers – FUDS Project Manager, Lloyd Goddard

**State of California**

- CALTRANS District 11 (31)
- California Department of Fish and Game (32)
- CAL Recycle (35)
- California Environmental Protection Agency (37A)
- Department of Toxic Substance Control (39)
- Office of Historic Preservation (41)
- California Natural Resources Agency (43)
- California Regional Water Quality Control Board, Region 9 (44)
- State Clearinghouse (46A)
- California Coastal Commission (47)
- California Transportation Commission (51)
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- California State Coastal Conservancy (54)
- Native American Heritage Commission (56)
- California Energy Commission (59)
- California Department of Conservation (60)

**County of San Diego**

Vector Control (63)  
Air Pollution Control District (65)  
Planning and Development Services (68)  
Parks and Recreation Department (69)  
Water Authority (73)  
Hazardous Materials Management Division (75)  
Department of Public Works (70)  
Department of Environmental Health – Land and Water Division (76)

**City of San Diego**

Mayor's Office (91)  
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    David Graham  
Council President Cole, District 4  
Councilmember Bry, District 1  
Councilmember Zapf, District 2  
Councilmember Ward, District 3  
Council President Pro Tem Kersey, District 5  
Councilmember Cate, District 6  
Councilmember Sherman, District 7  
Councilmember Alvarez, District 8  
Councilmember Gomez, District 9

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Inga Lintvedt, Deputy City Attorney

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Alyssa Muto, Deputy Director  
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Larry Trame  
Michelle Abella-Shon

San Diego Police Department

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Mike Pridemore  
Dawn Summers

City Libraries

Central Library, Government Documents (81 & 81A)  
Benjamin Branch Library (81D)  
San Carlos Branch Library (81DD)  
Scripps Miramar Branch Library (81FF)  
Tierrasanta Branch Library (81II)

City Advisory Committees and Boards

Airports Advisory Committee (MS 14)  
Historical Resources Board (87)  
Park & Recreation Board (89)  
Wetlands Advisory Board  
Community Forestry Advisory Board

### **Other City Governments**

City of El Cajon (97)  
City of La Mesa (100)  
City of Poway (103)  
City of Santee (104)  
San Diego Association of Governments (108)  
San Diego County Regional Airport Authority (110)  
Metropolitan Transit System (112/115)  
San Diego Gas & Electric (114)

### **School Districts**

Poway Unified School District (124)  
San Diego Unified School District (125/132)  
San Diego Community College District (133)  
UCSD Library (134)

### **Community Groups, Associations, Boards, Committees and Councils**

Mission Trails Regional Park CAC (341)  
Navajo Community Planners Inc. (336)  
San Carlos Area Council (338)  
Scripps Ranch Community Planning Group (437)  
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College Area Community Planning Board (456)  
Tierrasanta Community Council (462/464)

### **Other Agencies, Organizations and Individuals**

Jennifer Campos, RECON (Environmental Consultant)  
Mark Carpenter, KTU&A (Park Planning Consultant)  
Helix Water District  
Padre Water District  
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Bob Allen (460)  
Dave Dilday (460A)  
David Hogan, Chaparral Lands Conservancy  
Van Collinsworth  
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Arnold Veldkamp, J.J.B. Land Company, L.P.  
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Beth Simon  
Jan & Bob Hartwig  
Bill Winans  
Lois Day  
Bill Sefton  
Mohammad Ali  
Allyson Boyd  
Carol Cox  
Chuck Edgin  
Chris Hubbard  
Mollie Bigger

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Carlos Orsco  
Nate Bondi  
Patty Mooney  
Phil Moses  
Philip Aman  
Philip Erdelsky  
Rich Julien  
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Robin Keightley  
Ron Graves

Renee Schlocker  
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Robert Hunt  
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Basil Jones  
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Andy George  
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Jonny Holt  
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Bill Simmons  
Wayne Hay  
Ben Stone  
Kevin Loomis  
Mike Moore  
Kevin Walsh  
Bernie Parmer  
Dian Stum  
Daniel Newton  
Diana Johnson  
Joanne Thompson  
John Bellora  
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California Invasive Plant Council (Cal-IPC):  
Friends of Tierrasanta Canyons  
San Diego Mountain Biking Association  
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James McAndrew  
Richard Quincey  
Sean Berry  
Yen Family Trust  
Norman Peterson  
Selna & Mongini Investments  
Ramsey L Najor  
CCC Construction Co  
Strand Family Trust  
M&A Gabaee  
Callahan Family Trust  
Horning Family Revocable Trust  
Ishihara Trust  
Plumb Family Trust  
Richard Green Trust  
Donald Walker Trust  
Stanley & Rita Zemer Trust  
John Murphy Trust  
Jack & Jeannette Zarour  
East Elliot Land Co LLC  
Ingrid Fowler

Doris M Howser  
Max & Miriam Waisler  
Robert Hammond Jr Trust  
Artemiza Pringle  
Coad Investments  
Pardee Homes  
Ernst & Alice Kaminsky Family Trust  
Frances E Johnston Family Trust  
Allan Family Trust  
James M Andrews Family Trust  
Alfred & Joyce Imhof  
Lawrence Maday  
Schafer Surviving Spouse Trust  
Edwin Johnston 1979 Trust  
Felizardo & Belen Barcarse  
Margaret Petitjean  
Keystone Trust  
Akiko Kashiwagi  
Ayoub Sesar  
Norber Family Trust  
Martha Lind  
Mongini Revocable Trust  
Churchill Family Trust  
Alice Kenniston Revocable Trust  
Andrew Asaro Trust  
Poway Unified School District  
Midwest Television Inc.  
Mitri Barghout  
Dan Cashion  
Marlin Burke  
Chuck Malar  
Richard Breisch  
Boyd Conklin  
Cheryl Martin  
Jasmine Guffey  
Caroline Harrod  
Dustin Sharp  
Mark Schulze  
Frank Hass  
Patty Mooney  
Steve Blanchard  
Eric Scherch  
Stephen Houlahan  
Kim Wiley  
Liz Swain  
Herb Dallas  
Kirk Bennett  
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Pauline Kedward  
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Dustin Sharp  
Linda Hassakis  
Jason Showalter  
Stuart Creed  
David Cooksy  
Diego Aldrete  
Chuck Muell  
Allison Harmon  
Michael Coad  
Brian Cox  
Ryan Vallee  
Paul Schlitt

**RESULTS OF PUBLIC REVIEW:**

- ( ) No comments were received during the public input period.
- ( ) Comments were received but did not address the accuracy or completeness of the draft environmental document. No response is necessary and the letters are incorporated herein.
- ( ) Comments addressing the accuracy or completeness of the draft environmental document were received during the public input period. The letters and responses are incorporated herein.



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Alyssa Muto, Deputy Director  
Planning Department

January 20, 2017  
Date of Draft Report

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Date of Final Report

Analyst: Myra Herrmann

Draft  
Program Environmental Impact  
Report for the  
Mission Trails Regional Park  
Master Plan Update  
San Diego, California  
Project No. 349988  
SCH No. 2014041011

January 20, 2017

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- H: Traffic and Parking Memorandum
- I: Public Utilities

## Acronyms and Abbreviations

°F	Degrees Fahrenheit
AB	Assembly Bill
ADT	Average Daily Traffic
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMSL	Above Mean Sea Level
APCD	San Diego County Air Pollution Control District
APE	Area of Potential Effect
ASMD	Area-Specific Management Directives
ASTM	American Society for Testing and Materials
B.P.	Before Present
BAU	Business As Usual
BMP	Best Management Practice
CAA	Clean Air Act
CAC	Citizens' Advisory Committee
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
C&D	Construction and Demolition
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
City	City of San Diego
CNCCPA	California Natural Communities Conservation Planning Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CPA	Community Planning Area

CPIOZ	Community Plan Implementation Overlay Zone
CRHR	California Register of Historical Resources
CUP	Conditional Use Permit
CWA	Clean Water Act
CWMA	Coastal Cactus Wren Management Area
DEH	Department of Environmental Health
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
ED	Environmental Designee
EIR	Environmental Impact Report
EO	Executive Order
ESA	Endangered Species Act of 1973
ESL	Environmentally Sensitive Lands
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Map
Foundation	Mission Trails Regional Park Foundation
FRS	Flow Regulatory Structure
FUDS	Formerly Used Defense Site
GHG	Greenhouse Gas
GWP	Global warming potential
HA	Hydrologic Area
HCP	Historical Commemorative Program
HRG	Historical Resource Guidelines
HRR	Historical Resource Regulations
HSA	Hydrologic Subarea
HU	Hydrologic Unit
I-8	Interstate 8
IA	Implementing Agreement
IBC	International Building Code
ITA	Incidental Take Authorization
ITP	Incidental Take Permits
ITS	Intelligent Transportation System
JRMP	Jurisdictional Runoff Management Plan
LDC	Land Development Code
LEA	Local Enforcement Agency
LID	Low Impact Development
LOMR-F	Letter of Map Revision based on Fill
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MCAS	Marine Corps Air Station
MDP	Master Development Plan
MHPA	Multi-Habitat Planning Area
MMRP	Mitigation Monitoring and Reporting Program
MMTCO <sub>2</sub> E	Million Metric Tons of Carbon Dioxide Equivalents
MOU	Memorandum of Understanding

mpg	Miles Per Gallon
MPU	Master Plan Update
mph	Miles Per Hour
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
MTCO <sub>2</sub> E	Metric Tons of Carbon Dioxide Equivalents
MTDDO	Mission Trails Design District Ordinance
MTRP	Mission Trails Regional Park
MTS	San Diego Metropolitan Transit System
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NDP	Neighborhood Development Permit
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NO <sub>2</sub>	Nitrogen Dioxide
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRMP	National Resources Management Plan
O <sub>3</sub>	Ozone
OES	Office of Emergency Services
OHWM	Ordinary High Water Mark
Park	Mission Trails Regional Park
PEIR	Program Environmental Impact Report
Plans	Mission Trails Regional Park Master Plan Update and Natural Resources Management Plan
PM <sub>10</sub>	Particulate Matter With an Aerodynamic Diameter of 10 Microns or Less
PRC	Public Resources Code
PUD	Public Utilities Department
RAQS	Regional Air Quality Standards
RAWP	Remedial Action Work Plan
REC	Recognized Environmental Concern
RCRA	Resource Conservation and Recovery Act
ROG	Reactive Organic Gas
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	San Diego Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAB	South Coast Air Basin
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SDFD	San Diego Fire-Rescue Department

SDG&E	San Diego Gas and Electric
SDMC	San Diego Municipal Code
SDMMP	San Diego Mitigation Monitoring Program
SDNHM	San Diego Natural History Museum
SDP	Site Development Permit
SDPD	San Diego Police Department
SDRAA	San Diego County Regional Airport Authority
SDRMP	San Diego River Park Master Plan
SDSU	San Diego State University
SFHA	Special Flood Hazard Area
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
SO <sub>2</sub>	Sulfur Dioxide
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCM	Transportation Control Measures
TCP	Traditional Cultural Properties
TDM	Transportation Demand Management
TMDL	Total Maximum Daily Load
UDC	Unified Disaster Council
U.S. EPA	United States Environmental Protection Agency
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UXO	Unexploded Ordnance
VHFHSZ	Very High Fire Hazard Severity Zone
VPHCP	Vernal Pool Habitat Conservation Plan
VPMMP	Vernal Pool Management and Monitoring Plan
WMA	Watershed Management Area
WMI	Watershed Management Initiative
WRCC	Western Regional Climate Center
WTI	Western Tracking Institute
WQIP	Water Quality Improvement Plan



# Executive Summary

## ES.1 Proposed Project

### Project Location and Setting

The area of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for Mission Trails Regional Park (Park) is located near the center of metropolitan San Diego, 8 miles northeast of Downtown San Diego, midway between the Pacific Ocean and the Cleveland National Forest. The Park is almost entirely within the City; however, it is within or near several jurisdictions, including the Cities of La Mesa, Santee, and El Cajon to the east; the City of Poway to the north, and unincorporated San Diego County to the northeast. With the addition of the proposed expansion areas, the Park would be bisected by Marine Corps Air Station Miramar.

The Park is operated and maintained by the City of San Diego (City) in close partnership with the Mission Trails Regional Park Foundation (Foundation). The existing 5,830-acre Park is split into four areas: Lake Murray, Cowles Mountain, Mission Gorge, and Fortuna Mountain. Two expansion areas—East Elliott and West Sycamore—would be incorporated into the official Park boundaries upon approval of the Plans and certification of this Program Environmental Impact Report (PEIR), which would bring the Park's total area to approximately 9,780 acres. All of these areas represent the study area for this PEIR.

The Park contains a variety of topographic features, including canyons, valleys, mountains, hills, and low-lying areas. The topography is generally very rugged, with elevations ranging dramatically, from approximately 100 feet above mean sea level (AMSL) along the San Diego River to 1,593 feet AMSL at the summit of Cowles Mountain. A little more than 10 percent of the study area has slopes steeper than 50 percent. The Park is within two watersheds: San Diego River and Los Peñasquitos Creek. The majority of the Park is within the San Diego River watershed, which has its headwaters in the Cuyamaca Mountains near Julian and its terminus in San Diego near Mission Bay.

## Project Description

The Project comprises the implementation of the Plans for the Park. The Plans have been developed as an integrated set of management guidelines for the Park, with the MPU focusing on public access and recreation and the NRMP focusing on natural resources. The Plans were prepared concurrently in order to coordinate the recommendations and management actions for the six areas that comprise the study area—Lake Murray, Cowles Mountain, Mission Gorge, Fortuna Mountain, East Elliott, and West Sycamore.

The MPU provides updated recommendations to the 1985 Master Plan. The MPU recommendations range from broad overarching policy and management-related topics that affect the entire Park, to specific physical improvements. The MPU recommendations are focused on improving overall land/resource management, the safety and sustainability of recreational trails, improving recreational access, and eliminating conflicts between recreational uses and natural habitat.

The MPU identifies conceptual projects that may be implemented after adoption of the Plans. These are referred to as “subsequent projects” throughout the PEIR. Such projects recommended by the MPU include, but are not limited to, trail improvements, trailheads, picnic and shade areas, restrooms, parking areas, and interpretive overlooks. Subsequent projects identified in the MPU are conceptual, including trail alignments discussed below. The MPU does not provide for any specific location or design for subsequent projects that may potentially be implemented. These subsequent projects would require further design and review as they are proposed.

The NRMP sets forth adaptive management actions to ensure long-term, viable populations of sensitive species and habitats within the Park. It also sets forth protocols (e.g., data collection methods, success criteria) to evaluate the effectiveness of these management actions. The NRMP fulfills a requirement identified in the City’s Multiple Species Conservation Program (MSCP) Subarea Plan to set forth an adaptive management framework in order to protect sensitive biological resources at the Park.

Other NRMP management actions—such as monitoring, weeding, or restoration—may have the potential to in turn cause environmental impacts. However, the NRMP also details minimization measures that would be required to be followed prior to implementation. Therefore, the NRMP would generally not result in environmental impacts, but is analyzed where necessary throughout the PEIR.

## ES.2 Project Objectives

The Plans address the long-term protection of natural resources and development goals in support of recreation and interpretation within the Park. For the purposes of this PEIR, the goals of the Plans are the objectives of the Project as defined by the California Environmental Quality Act (CEQA) Guidelines:

1. Provide a structure for ongoing land and resource management actions required to maintain the Park and protect its resources.

2. Identify unsafe or unsustainable sections of recreational trails and provide guidance for the types of management action required.
3. Identify missing or constrained linkages within the Park and provide new or alternative routes to improve the recreational connectivity while protecting the Park's natural and cultural resources.
4. Integrate the management actions identified in the NRMP with the recreational trails network throughout the Park.
5. Provide amenities that support the recreational uses that currently exist or are proposed as part of the MPU.

### **ES.3 Areas of Controversy**

Areas of controversy associated with the Plans center around striking a balance between resource conservation and providing enhanced recreational amenities for Park users (i.e. trail, mountain bike, and equestrian).

### **ES.4 Project Alternatives**

In order to fully evaluate the environmental effects of proposed projects, CEQA mandates that alternatives to the proposed project be analyzed. Section 15126.6 of the state CEQA Guidelines requires the discussion of "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project" and the evaluation of the comparative merits of the alternatives. The alternatives discussion is intended to "focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project," even if these alternatives would impede to some degree the attainment of the project objectives.

Alternatives to the adoption and implementation of the Plans are evaluated in Chapter 10 of this PEIR for the Park. The evaluations analyze the ability of each alternative to further reduce or avoid significant environmental effects of the proposed Plans. Each major issue area included in the impact analysis of this PEIR has been given consideration in the alternatives analysis. This PEIR evaluates two alternatives to the proposed Plans and associated discretionary actions including: (1) No Project Alternative and (2) Reduced Project Alternative.

#### **No Project Alternative**

The No Project Alternative would include limited implementation of the 1985 Master Plan, which provides guidance for the development of an urban regional park to meet current and future recreational, educational, and cultural needs of the San Diego region. The No Project Alternative represents limited implementation of the 1985 Master Plan because a number of proposals in the 1985 Master Plan for construction of structures and amenities would no longer be feasible under the existing regulatory framework since current regulations provide additional protections for

biological resources compared to when the 1985 Master Plan was adopted. For example, restrictions under the City of San Diego MSCP Subarea Plan, environmentally sensitive lands (ESL) regulations and brush management regulations would restrict development of some of the larger uses identified in the 1985 Master Plan such as a multi-use center in the West Fortuna area, an interpretive center in East Fortuna area, and multiple developed day use and camp areas. Proposals in the 1985 Master Plan that could be implemented under the existing regulatory framework include the extension of Clairemont Mesa Boulevard and Jackson Drive into the Park boundaries, providing connections to Mission Gorge Road.

More specifically, since adoption of the 1985 Master Plan, areas within and surrounding the Park have taken on greater significance as a core area for the region's sensitive biological resources and are subject to greater levels of protection under the City of San Diego MSCP Subarea Plan. Although proposed passive recreational uses envisioned by the 1985 Master Plan would be considered compatible with the Subarea Plan (Multi-Habitat Planning Area [MHPA] Guideline B10), development of the larger future uses would not be allowed under the current MSCP. For example, Subarea Plan MHPA Guideline B4 states that "[A] condition of coverage for San Diego ambrosia requires 90 percent preservation of the population at the Mission Trails Regional Park site". This requirement creates environmental constraints beyond what existed when the existing Master Plan was approved in 1985 and limits full implementation of all proposals in the existing Master Plan.

Implementation of the No Project Alternative would not avoid any of the identified significant and mitigable impacts of the Project, nor would it reduce any impacts associated with the Project. The No Project Alternative would also slightly increase impacts associated with land use, visual effects, biological resources, traffic/circulation, hydrology/water quality, and geology/soils.

Under the No Project Alternative, the proposed Plans would not be adopted by the City and the integrated set of management guidelines focusing on public access and recreation under the MPU and natural resources under the NRMP would not be implemented. The expansion areas (East Elliott and West Sycamore areas) would not be officially incorporated into the Park boundaries and the associated Community Plan amendments would not occur. Under the No Project Alternative, the Park would not be subject to the updated policies and management recommendations in the Plans that would minimize environmental impacts. The No Project Alternative would not provide updated management recommendations that would preserve sensitive biological resources with the Park, and unauthorized use of existing trails within the Park would continue.

## **Reduced Project Alternative**

Under the Reduced Project Alternative, the proposed trail plan would be modified within the East Elliott area. The proposed trail plan for all other areas would remain the same. Adoption of the NRMP would occur under this Alternative, similar to the Project. The Reduced Project Alternative was developed based on input provided by California Department of Fish and Wildlife and United States Fish and Wildlife Service (Wildlife Agencies). The Reduced Project Alternative would remove the proposed Sycamore Canyon connection and the trail alignment that would extend along the western boundary of the Park. This would result in two smaller trail loops in the western portion of the East Elliott area. The Wildlife Agencies requested the removal of these trail components to protect existing intact habitat, decrease the potential for the incursion of exotics species, and avoid

disruption of wildlife movement, restriction of wildlife refuge areas, and negative effects to wildlife composition. Similarly, the Wildlife Agencies requested removal of the trail alignment that would pass through the Oak Canyon/State Route 52 area due to the potential for human-caused habitat disturbances to alter wildlife movement through this area. The Reduced Project Alternative would also remove the proposed east-west trail alignment south of Sycamore Landfill and would result in a reduction of associated trail amenities due to elimination of trails. The smaller footprint of the Reduced Project Alternative would reduce the amount of active use areas that would be constructed compared to the project and increase the amount of land preserved as natural habitat.

Implementation of the Reduced Project Alternative would not avoid any of the identified significant and mitigable impacts of the Project. However, this alternative would slightly reduce impacts associated with land use, visual effects, air quality, greenhouse gas emissions, biological resources, historical resources, hydrology and water quality, geology and soils, paleontological resources, public services, and public utilities.

However, this alternative would not meet all of the Project objectives to the same degree as the project. Specifically, the Reduced Project Alternative would not improve recreational connectivity to the same degree as the Project because it would not provide the Sycamore Canyon trail connection or the proposed trail extending along the western boundary of the Park which would reduce trail connectivity and access for Park patrons. The MPU would still contain updated recommendations necessary to provide a structure for ongoing land and resource management and establish a framework for identifying unsafe or unsustainable sections of recreational trails. It would, however, provide fewer trails and recreational amenities, which would reduce public access. The NRMP would still be implemented, which would in turn serve to protect biological resources within the Park.

## **ES.5 Summary of Significant Impacts and Mitigation Measures that Reduce the Impact**

Table ES-1 summarizes the results of the environmental analysis including the potentially significant environmental impacts of the proposed Plans and proposed mitigation measures to reduce or avoid these impacts. Impacts, including analysis of cumulative impacts, and mitigation measures are organized by issue in Chapter 6.0, Environmental Analysis. Chapter 6.0 also includes discussions of proposed policies that would reduce identified impacts.

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<b>Land Use</b>			
<p>Would implementation of the Plans and associated discretionary actions result in a conflict with the goals, objectives, and recommendations of the General Plan, the Land Development Code (LDC), or the Tierrasanta, East Elliott, and Navajo Community Plans and the Rancho Encantada Precise Plan?</p>	<p>Implementation of the Plans and associated discretionary actions would be consistent with the General Plan, the LDC, or the Tierrasanta, East Elliott, and Navajo community plans and the Rancho Encantada Precise Plan. Implementation of the Plans would not conflict with any applicable land use plan, goal, or objective of the General Plan, Municipal Code, and the Navajo, Tierrasanta, and East Elliott community plans, or the Rancho Encantada Precise Plan. Preparation of the NRMP for the Park was in direct response to the need for consistency with the MSCP. Technical amendments to the community plans (Tierrasanta, East Elliott, Navajo, and Rancho Encantada) required to implement the Plans would result in impacts that would be less than significant. Therefore, no mitigation would be required.</p>	<p>None required.</p>	<p>Less than significant</p>
<p>Would implementation of the Plans and associated discretionary actions be consistent with the density calculations, design standards, use restrictions, and any other development regulations of the City's LDC related to the applicable zoning regulations and as a result, cause an indirect or secondary environmental impact to occur?</p>	<p>The Plans and subsequent projects would not conflict with any aspect of the LDC. None of the contemplated subsequent projects would change any land use designation or intensity, and would be allowable uses within all zoning categories of the study area. Impacts would be less than significant.</p>	<p>None required.</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<p>Would implementation of the Plans and associated discretionary actions result in a conflict with adopted environmental plans, including the City of San Diego’s MSCP Subarea Plan and Multi-Habitat Planning Area (MHPA) adopted for the purpose of avoiding or mitigating an environmental effect for the area?</p>	<p>The Plans and subsequent projects would consist of allowable uses within the MHPA such as public access/passive recreation projects per Section 1.4.1 of the MSCP Subarea Plan (MPU) or scientific and biological activities (NRMP); therefore, there would be no conflict with land use compatibility. Management activities contemplated by the NRMP would not conflict with the MHPA Land Use Adjacency Guidelines per Section 1.4.3 of the MSCP Subarea Plan. However, subsequent projects implemented under the MPU would introduce additional recreational uses within or adjacent to the MHPA. Impacts would be significant (Impact LU-1) and mitigation is required.</p>	<p><b>MM-LU-1:</b> Subsequent projects implemented in accordance with the MPU which are within or adjacent to the designated MHPA areas shall comply with Section 1.4 Land Use Considerations and Section 1.5 Framework Management Plan of the MSCP in terms of land use, drainage, access, toxic substances in runoff, lighting, noise, invasive plant species, grading, and brush management requirements. Mitigation measures include, but are not limited to: sufficient buffers and design features, barriers (rocks, boulders, signage, fencing, and appropriate vegetation) where necessary, lighting directed away from the MHPA. The project biologist for each subsequent project would identify specific mitigation measures needed to reduce impacts to below a level of significance. Subsequent environmental review would be required to determine the significance impacts from land use adjacency and compliance with the Land Use Adjacency Guidelines of the MSCP. Prior to approval of subsequent projects in an area adjacent to a designated MHPA, the City’s Environmental Designee (ED) shall identify specific conditions of approval in order to avoid or to reduce potential impacts adjacent to the MHPA.</p> <p>Specific requirements shall include:</p> <ul style="list-style-type: none"> <li>• <b>Drainage:</b> All new and proposed parking areas and developed areas in and adjacent to the preserve would not drain directly into the MHPA. All developed and paved areas would prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA. This can be accomplished using a variety of methods including natural detention basins, grass swales, or mechanical trapping devices. These systems would be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance would include dredging out sediments if needed, removing exotic plant</li> </ul>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.</p> <ul style="list-style-type: none"> <li>• <b>Toxics:</b> Land uses, such as recreation and agriculture, that use chemicals or generate byproducts such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures would include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance would be provided. Where applicable, this requirement would be incorporated into leases on publicly owned property as leases come up for renewal.</li> <li>• <b>Lighting:</b> Proposed lighting of all developed areas adjacent to the MHPA would be directed away from the MHPA. Where necessary, development would provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.</li> <li>• <b>Noise:</b> Uses in or adjacent to the MHPA would be designed to minimize noise impacts. Berms or walls would be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas would incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures would also be incorporated for the remainder of the year.</li> <li>• <b>Barriers:</b> New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation,</li> </ul>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.</p> <ul style="list-style-type: none"> <li>• <b>Invasives:</b> No invasive nonnative plant species would be introduced into areas adjacent to the MHPA.</li> <li>• <b>Brush Management:</b> New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) would be set back from slope edges to incorporate brush management areas on the development pad and outside of the MHPA. No residential development would occur specifically under the Plans; therefore, this would not be required.</li> <li>• <b>Grading/Land Development:</b> Manufactured slopes associated with site development would be included within the development footprint for projects within or adjacent to the MHPA.</li> </ul>	
<b><i>Visual Effects and Neighborhood Character</i></b>			
<p>Would implementation of the Plans and associated discretionary actions result in a substantial change to the natural topography or other relief features?</p>	<p>Subsequent projects contemplated by the MPU are not expected to result in a substantial change to the natural topography or other ground surface relief features that would create a significant visual impact as a result of a landform modification. Recommendations for recreational amenities, parking areas, and trails assume a design that would generally follow the natural contours of the land and would not require the natural topography to be significantly altered. Impacts would be less than significant.</p>	<p>None required.</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<p>Would implementation of the Plans and associated discretionary actions results in the blockage of public views from designated open space areas, roads, or to any significant visual landmark or scenic vistas? Would Plans adversely affect the existing visual character of the City of community plan areas, particularly with respect to views from major roadways, public viewing areas, vistas, or open spaces?</p>	<p>Various MPU recommendations intend to preserve and enhance the visual environment. Considering this and the relative small scale and low profile of the recreational amenities, park furniture, and parking areas identified in the MPU, implementation of the Plans would not block views of public view corridors or create substantial view blockage to or from the Park or from the Scenic Highway State Route 52. Potential impacts to viewsheds, view corridors, and public viewing areas would be less than significant.</p>	<p>None required.</p>	<p>Less than significant</p>
<p>Would implementation of the Plans and associated discretionary actions result in incompatibility with the surrounding development in terms of bulk, scale, materials, or style?</p>	<p>Subsequent projects contemplated by the MPU would not exceed the allowable height or bulk regulations as no large buildings or habitable structures would be implemented. Recreational amenities such as signs and picnic areas would be required to use similar materials as existing amenities, and would also adhere to the design guidelines within the MPU. No community identification symbols or landmarks would be affected by the MPU, nor would any recommendations starkly contrast with surrounding development or natural topography. Impacts would be less than significant.</p>	<p>None required.</p>	<p>Less than significant</p>
<p>Would implementation of the Plans and associated discretionary actions shed</p>	<p>Exterior lighting that may be required by subsequent projects contemplated by the MPU would be designed to comply with</p>	<p>None required.</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
substantial light onto adjacent, light-sensitive property or land use, or would emit a substantial amount of ambient light into the nighttime sky?	applicable regulations, including the City's Outdoor Lighting Regulations (LDC, Section 142.0740). The lighting would be required to have cut-off shields to direct light away from open space areas and sensitive species, and avoid impact on night sky glare. Impacts would be less than significant.		
<b>Air Quality</b>			
Would implementation of the Plans and associated discretionary actions result in an increased number of automobile trips which would/could potentially affect San Diego's ability to meet regional, state, and federal clean air standards?	<p>Air Quality Plans</p> <p>Implementation of the MPU would not result in a conflict with or obstruct implementation of the applicable air quality plan, nor would it result in population growth or cause an increase in currently established population projections. The MPU would be consistent with the City's General Plan and Regional Air Quality Standards. Impacts would be less than significant.</p> <p>Long-Term Operational Emissions</p> <p>The MPU would not result in a change in long-term operational emissions and would not result in an air quality violation. Therefore, impacts related to long-term operational air emissions would be less than significant.</p>	None required.	Less than significant
Would implementation of the Plans and associated discretionary actions result in air emissions that would substantially deteriorate ambient air quality, including	Construction emissions would be less than the applicable thresholds for all criteria pollutants and would not result in an air quality violation. Therefore, impacts related to short-term construction air emissions associated with subsequent projects implemented in	None required.	Less than significant

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<p>exposure to sensitive receptors to substantial pollutant concentrations?</p>	<p>accordance with the MPU would be less than significant.</p> <p>Air emissions from construction operations would be minimal and short-term. Impacts associated with exposure of sensitive receptors to diesel particulate matter would be less than significant.</p> <p>Due to the low volume of traffic generated by the project, combined with the low traffic volumes at Barker Way, Mission Gorge Road, Mesa Road, and Father Junipero Serra Trail, carbon monoxide (CO) hotspots would not result from the project. Impacts associated with CO hotspots would be less than significant.</p> <p>Odors generated from vehicles and/or equipment exhaust during construction would be temporary, localized, and occur at levels that would not affect people. Therefore, odor impacts from construction would be less than significant. There would be no odor impact associated with long-term project operation.</p> <p>None of the subsequent projects contemplated by the MPU would result in the construction of a stationary source of emissions. Impacts associated with stationary sources of air contaminants would be less than significant.</p>		

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<b>Greenhouse Gas Emissions</b>			
Would implementation of the Plans and associated discretionary actions generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	Implementation of the Plans would not result in substantial adverse effects related to the generation of GHG emissions, either directly or indirectly, that may have a significant effect on the environment. Additionally, implementation of the Plans would not result in a change in operational GHG emissions within the Park. Thus, impacts associated with GHG emissions would be less than significant.	None required.	Less than significant
Would implementation of the Plans and associated discretionary actions conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs?	The MPU would be consistent with the goals of Climate Action Plan and other applicable plans, policies, and regulations pertaining to the reduction of GHGs. Additionally, subsequent projects contemplated by the MPU would not result in a change in operational GHG emissions and construction emissions would not result in a substantial adverse effect related to GHG emissions. Impacts would be less than significant.	None required.	Less than significant

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<b>Biological Resources</b>			
<p>Would implementation of the Plans and associated discretionary actions result in a reduction the number of any unique, rare, endangered, sensitive, or fully protected species of plants or animals?</p>	<p>Potential impacts to the following MSCP covered plant species would be significant (Impact BIO-1):</p> <ul style="list-style-type: none"> <li>• Willow monardella</li> <li>• San Diego goldenstar</li> <li>• Orcutt's brodiaea</li> <li>• Variegated dudleya</li> <li>• San Diego barrel cactus</li> <li>• San Diego thornmint</li> <li>• San Diego ambrosia</li> </ul> <p>Potential direct and indirect impacts to the following sensitive wildlife species would also be significant (Impacts BIO-2 and BIO-3):</p> <ul style="list-style-type: none"> <li>• San Diego fairy shrimp</li> <li>• Quino checkerspot butterfly</li> <li>• Belding's orange-throated whiptail</li> <li>• Southern Pacific pond turtle</li> <li>• San Diego horned lizard</li> <li>• Coastal California gnatcatcher</li> <li>• Coastal cactus wren</li> <li>• Cooper's hawk (nesting)</li> <li>• Golden eagle (nesting and wintering)</li> <li>• Least Bell's vireo</li> <li>• Light-footed clapper rail</li> <li>• Northern harrier (nesting)</li> <li>• Peregrine falcon (nesting)</li> <li>• Southern California rufous-crowned sparrow</li> <li>• Southwestern willow flycatcher</li> <li>• Western bluebird</li> </ul>	<p><b>MM-BIO-1:</b> To reduce potentially significant impacts that would cause a reduction in the number of unique, rare, endangered, sensitive, or fully protected species of plants or animals, if present within the study area, subsequent MPU projects that are proposed in undisturbed areas shall be analyzed in accordance with the CEQA Significance Thresholds, which require that site-specific biological resources surveys be conducted in accordance with City of San Diego Biology Guidelines (2012). The locations of any sensitive plant species, including listed, rare, and narrow endemic species, as well as the potential for occurrence of any listed or rare wildlife species shall be recorded and presented in a biological resources report. Based on available habitat within the study area, focused presence/absence surveys shall be conducted in accordance with the Biology Guidelines and applicable resource agency survey protocols to determine the potential for impacts resulting from the future projects on these species. Engineering design specifications based on project-level grading and site plans shall be incorporated into the design of future projects to minimize or eliminate direct impacts on sensitive plant and wildlife species consistent with the NRMP, Federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act, California Endangered Species Act, MSCP Subarea Plan, and Environmentally Sensitive Lands Regulations.</p> <p>Mitigation for Impacts to Sensitive Upland Habitats</p> <p>Subsequent projects implemented in accordance with the MPU resulting in impacts to sensitive upland Tier I, II, IIIA, or IIIB habitats shall implement avoidance and minimization measures consistent with the City Biology Guidelines and MSCP Subarea Plan and provide suitable mitigation in accordance with the City's Biology Guidelines and MSCP Subarea Plan (see Table 5.5-8 of this PEIR). Future project-level grading and site plans shall incorporate project</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	<ul style="list-style-type: none"> <li>• Southern mule deer</li> <li>• Mountain lion</li> </ul>	<p>design features to minimize direct impacts on sensitive vegetation communities shown in Table 5.5-6 of this PEIR, consistent with federal, state, and City guidelines. Any required mitigation for impacts on sensitive vegetation communities shall be outlined in a conceptual mitigation plan following the outline provided in the City's Biology Guidelines.</p> <p>Mitigation for impacts to sensitive vegetation communities shall be implemented at the time future development projects are proposed. Project-level analysis shall determine whether the impacts are within or outside of the MHPA. Any MHPA boundary adjustments shall be processed by the individual project applicants through the City and Wildlife Agencies during the early project planning stage.</p> <p>Mitigation for impacts to sensitive upland habitats shall occur in accordance with the MSCP mitigation ratios as specified within the City's Biology Guidelines (City of San Diego 2012). These mitigation ratios are based on tier level of the vegetation community, the location of the impact, and the location of the mitigation site(s). For example, impacts to lands inside of the MHPA and mitigated outside the MHPA would have the highest mitigation ratio whereas impacts to lands outside the MHPA and mitigated inside the MHPA would have the lowest mitigation ratio.</p> <p>Mitigation for short-term Impacts to sensitive species from Project Construction would be addressed through implementation of MM-LU-1 and MM-BIO-2.</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<p>Would implementation of the Plans and associated discretionary actions result in interference with the nesting/foraging/movement of any resident or migratory fish or wildlife species?</p>	<p>The NRMP includes numerous management actions specifically designed to improve wildlife movement corridors both within the Park and regionally. However, the MPU also envisions subsequent facility, recreation and trails projects. These subsequent projects have the potential to result in habitat modifications, which in turn may interfere with wildlife nesting, foraging, or movement within riparian habitats and upland habitats. Impacts would be significant (Impact BIO-4).</p>	<p><b>MM-BIO-2:</b> Mitigation for future projects to reduce potentially significant impacts that would interfere with the nesting, foraging, or movement of wildlife species within the study area, shall be identified in site-specific biological resources surveys prepared in accordance with City of San Diego Biology Guidelines as further detailed in MM-BIO-1 during the discretionary review process. The biology report shall include results of protocol surveys and recommendations for additional measures to be implemented during construction-related activities; shall identify the limits of any identified local-scale wildlife corridors or habitat linkages and analyze potential impacts in relation to local fauna, and the effects of conversion of vegetation communities to minimize direct impacts on sensitive wildlife species and to provide for continued wildlife movement through the corridor.</p> <p>Measures that shall be incorporated into project-level construction documents to minimize direct impacts on wildlife movement, nesting, or foraging activities shall be addressed in the biology report and shall include recommendations for preconstruction protocol surveys to be conducted during established breeding seasons, construction noise monitoring and implementation of any species-specific mitigation plans (such as a burrowing owl mitigation plan) in order to comply with the FESA, MBTA, Bald and Golden Eagle Protection Act, state Fish and Game Code, and/or the ESL Regulations.</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<p>Would implementation of the Plans and associated discretionary actions result in an impact to sensitive habitat, including, but not limited to streamside vegetation, oak woodland, vernal pools, wetlands, coastal sage scrub, or chaparral?</p>	<p>The NRMP identifies numerous management actions for ecological guilds within the Park, including cliffs and rocky outcrops, East Elliott clay ridgelines, Tierrasanta clay ridges, riparian woodlands, and Artemisia-dominated coastal sage scrub. These actions aim to improve the viability of these habitats. However, subsequent projects implemented in accordance with the MPU would have the potential to impact Tier I, II, IIIA, and IIIB habitats, pursuant to MSCP. These impacts would be significant (Impact BIO-5).</p>	<p><b>MM-BIO-1</b> (above) would reduce this impact to less than significant.</p>	<p>Less than significant</p>
<p>Would implementation of the Plans and associated discretionary actions result in the introduction of invasive species of plants into the area?</p>	<p>Invasive plants thrive in areas disturbed by activities such as grading, construction, trail usage, and fire. Therefore, as subsequent projects implemented in accordance with the MPU would involve trail construction, realignments and closures, there would be the potential to introduce non-native plant species within sensitive habitats. These impacts would be significant (Impact BIO-6).</p>	<p><b>MM-LU-1</b> (above) would reduce this impact to less than significant.</p>	<p>Less than significant</p>
<p>Would implementation of the Plans and associated discretionary actions result in an impact on City, state, or federally regulated wetlands (including, but not limited to salt marsh, vernal pools, lagoon, riparian habitat, etc.) through direct removal, filling, hydrological interruption, or</p>	<p>Subsequent projects implemented in accordance with the MPU would have the potential to impact vernal pools and their species, as well as jurisdictional wetlands. Impacts would be significant (Impacts BIO-7 and BIO-8).</p>	<p><b>MM-BIO-3:</b> To reduce the potential direct impacts to City, state, and federally regulated wetlands, all subsequent projects developed in accordance with the MPU and NRMP shall be required to comply with Clean Water Act (CWA) Section 404 requirements and special conditions, Regional Water Quality Control Board (RWQCB) in accordance with Section 401 of the CWA, California Department of Fish and Wildlife (CDFW) Section 1602 Streambed Alteration Agreement requirements and special conditions, and the City of San Diego ESL Regulations for minimizing impacts to wetlands. Achieving consistency with these regulations for impacts on</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
other means?		<p>wetlands and special aquatic sites would reduce potential impacts to regulated wetlands and provide compensatory mitigation (as required) to ensure no net loss of wetland habitats.</p> <p>Prior to obtaining discretionary permits for future actions implemented in accordance with the Plans, a site-specific biological resources survey shall be completed in accordance with City of San Diego Biology Guidelines. Any required mitigation for impacts shall be outlined in a conceptual wetland mitigation plan prepared in accordance with the City's Biology Guidelines (2012). In addition, a preliminary or final jurisdictional wetlands delineation of the project site shall be completed following the methods outlined in the U.S. Army Corps of Engineers (USACE) 1987 <i>Wetlands Delineation Manual</i> and the 2008 <i>Regional Supplement to the Corps of Engineers Delineation Manual for the Arid West Region</i>. A determination of the presence/absence and boundaries of any waters of the U.S. and waters of the state shall also be completed following the appropriate USACE guidance documents for determining the Ordinary High Water Mark boundaries. The limits of any riparian habitats on-site under the sole jurisdiction of CDFW shall also be delineated, as well as any special aquatic sites (excluding vernal pools) that may not meet federal jurisdictional criteria but are regulated by the RWQCB. Engineering design specifications based on project-level grading and site plans shall be incorporated into the project design to minimize direct impacts to wetlands, jurisdictional waters, riparian habitats, vernal pools, etc. consistent with federal, state, and City guidelines.</p> <p>Additionally, any impacts to wetlands in the City of San Diego would require a deviation from the ESL wetland regulations. Under the wetland deviation process, development proposals that have wetland impacts shall be considered only pursuant to one of three options: Essential Public Projects, Economic Viability Option, or Biologically Superior Option. ESL Regulations require that impacts to</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>wetlands be avoided. Unavoidable impacts to wetlands shall be minimized to the maximum extent practicable and mitigated as follows:</p> <ul style="list-style-type: none"> <li>• As part of the project-specific environmental review pursuant to CEQA, all unavoidable wetland impacts shall be analyzed, and mitigation shall be required in accordance with ratios shown in Tables 5.5-9a and b of this PEIR. Mitigation shall be based on the impacted type of wetland and project design. Mitigation shall prevent any net loss of wetland functions and values of the impacted wetland.</li> <li>• For the Biologically Superior Option, the project and proposed mitigation shall include avoidance, minimization, and compensatory measures, which would result in a biologically superior net gain in overall function and values of (a) the type of wetland resource being impacted and/or (b) the biological resources to be conserved; and the biologically superior mitigation shall include either: (1) standard mitigation per Table 5.5-9a of this PEIR, including wetland creation or restoration of the same type of wetland resource that is being impacted that results in high quality wetlands; and a biologically superior project design whose avoided area(s) (i) is in a configuration or alignment that optimizes the potential long-term biological viability of the on-site sensitive biological resources, and/or (ii) conserves the rarest and highest quality on-site biological resources; or (2) for a project not considered consistent with "1" above, extraordinary mitigation per Table 5.5-9b of this PEIR is required.</li> </ul> <p>As part of any future project-specific environmental review pursuant to CEQA, all unavoidable wetlands impacts (both temporary and permanent) shall be analyzed and mitigation required in accordance with the City's Biology Guidelines; mitigation shall be based on the impacted type of wetland habitat.</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>Mitigation shall prevent any net loss of wetland functions and values of the impacted wetland. The following provides operational definitions of the four types of activities that constitute wetland mitigation under the ESL Regulations:</p> <ul style="list-style-type: none"> <li>• <b>Wetland creation</b> is an activity that results in the formation of new wetlands in an upland area. An example is excavation of uplands adjacent to existing wetlands and the establishment of native wetland vegetation.</li> <li>• <b>Wetland restoration</b> is an activity that re-establishes the habitat functions of a former wetland. An example is the excavation of agricultural fill from historic wetlands and the re-establishment of native wetland vegetation.</li> <li>• <b>Wetland enhancement</b> is an activity that improves the self-sustaining habitat functions of an existing wetland. An example is removal of exotic species from existing riparian habitat.</li> <li>• <b>Wetland acquisition</b> may be considered in combination with any of the three mitigation activities above.</li> </ul> <p>Wetland enhancement and wetland acquisition focus on the preservation or the improvement of existing wetland habitat and function and do not result in an increase in wetland area; therefore, a net loss of wetland may result. As such, acquisition and/or enhancement of existing wetlands shall be considered as partial mitigation only for any balance of the remaining mitigation requirement after restoration or creation if wetland acreage is provided at a minimum of a 1:1 ratio.</p> <p>For permanent wetland impacts that are unavoidable and minimized to the maximum extent feasible, mitigation shall consist of creation of new in-kind habitat to the fullest extent possible and at the appropriate ratios. If on-site mitigation is not feasible, then</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>at least a portion of the mitigation must occur within the same watershed. The City's Biology Guidelines and MSCP Subarea Plan require that impacts on wetlands, including vernal pools, shall be avoided, and that a sufficient wetland buffer shall be maintained, as appropriate, to protect resource functions/values. The project specific biology report shall include an analysis of on-site wetlands (including City, state, and federal jurisdiction analysis) and, if present, include project alternatives that fully/substantially avoid wetland impacts. Detailed evidence supporting why there is no feasible less environmentally damaging location or alternative to avoid any impacts must be provided for City staff review, as well as a mitigation plan that specifically identifies how the project is to compensate for any unavoidable impacts. A conceptual wetland mitigation plan (which includes identification of the mitigation site) shall be approved by City staff prior to the release of the draft environmental document. Avoidance shall be the first requirement; mitigation shall only be used for impacts clearly demonstrated to be unavoidable.</p> <p>Prior to the commencement of any construction-related activities on-site for projects impacting wetland habitat (including earthwork and fencing) the applicant shall provide evidence of the following to the Assistant Deputy Director/ED prior to any construction activity:</p> <ul style="list-style-type: none"> <li>• Compliance with USACE Section 404 nationwide permit;</li> <li>• Compliance with the RWQCB Section 401 Water Quality Certification; and</li> <li>• Compliance with the CDFW Section 1601/1603 Streambed Alteration Agreement.</li> </ul> <p><b>Vernal Pools and Vernal Pool Species:</b> Impacts to vernal pools shall require assessments of vernal pool flora and fauna, hydrology, habitat function, and restoration potential and protocol fairy</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>shrimp surveys, in addition to the requirements listed above. Impacts to fairy shrimp shall require either a Section 10(a)1(A) permit or Section 7 consultation Biological Opinion from USFWS. If the Vernal Pool Habitat Conservation Plan is adopted, the City will receive take authorization for the seven vernal pool species.</p> <p>Mitigation for projects impacting vernal pools shall include salvage of sensitive species from vernal pools to be impacted, introduction of salvaged material into restored vernal pool habitat where appropriate (e.g., same pool series), and maintenance of salvaged material pending successful restoration of the vernal pools. Salvaged material shall not be introduced to existing vernal pools containing the same species outside the vernal pool series absent consultation with and endorsement by vernal pool species experts not associated with the project (e.g., independent expert). The mitigation sites shall include preservation of the entire watershed and a buffer based on functions and values; however, if such an analysis is not conducted, there shall be a default of a 100-foot buffer from the watershed.</p>	
<b>Historical Resources</b>			
<p>Would implementation of the Plans and associated discretionary actions result in an alteration, including the adverse physical or aesthetic effects and/or destruction of a prehistoric or historic archaeological site or historic building (including an architecturally significant building), structure, object or site?</p>	<p>Impacts on known prehistoric or historic resources (both archaeological and built environment) and those not yet found and formally recorded could occur anywhere in association with implementation of the Plans. Grading of original in situ soils could also expose buried archaeological resources and features. Potential impacts on historical resources associated with subsequent projects implemented in accordance with the Plans would be considered significant (Impact HIST-1).</p>	<p><b>MM-HIST-1a:</b> Prior to issuance of any development permit for a subsequent project tiering off of the MPU that could directly affect an archaeological or tribal cultural resource; the City shall require the following steps be taken to determine: (1) the presence of archaeological or tribal cultural resources and (2) the appropriate mitigation for any significant resources which may be impacted by a development activity. Sites may include, but are not limited to, privies, trash pits, building foundations, and industrial features representing the contributions of people from diverse socio-economic and ethnic backgrounds. Resources may also include resources associated with prehistoric Native American activities.</p>	<p>Less than Significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>Initial Determination</p> <p>The environmental analyst shall determine the likelihood for the project site to contain historical resources by reviewing site photographs and existing historic information (e.g., Archaeological Sensitivity Maps, the Archaeological Map Book, and the California Historical Resources Inventory System and the City's "Historical Inventory of Important Architects, Structures, and People in San Diego") and may conduct a site visit. If there is any evidence that the project area contains archaeological or tribal cultural resources, then an archaeological evaluation consistent with City Guidelines would be required. All individuals conducting any phase of the archaeological evaluation program must meet professional qualifications in accordance with the City's Historical Resources Guidelines.</p> <p>Step 1</p> <p>Based on the results of the initial determination, if there is evidence that the project area contains archaeological resources, preparation of an evaluation report is required. The evaluation report could generally include background research, field survey, archaeological testing, and analysis. Before actual field reconnaissance would occur, background research is required that includes a record search at the South Coastal Information Center at San Diego State University. A review of the Sacred Lands File maintained by the Native American Heritage Commission (NAHC) must also be conducted at this time. Information about existing archaeological collections should also be obtained from the San Diego Archaeological Center and any tribal repositories or museums.</p> <p>Once the background research is complete, a field reconnaissance must be conducted by individuals whose qualifications meet City standards. Consultants are encouraged to employ innovative survey techniques when conducting enhanced reconnaissance including, but not limited to, remote sensing, ground penetrating radar, and</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>other soil resistivity techniques as determined on a case-by-case basis. Native American participation is required for field surveys when there is likelihood that the project site contains prehistoric archaeological resources or tribal cultural resources. If, through background research and field surveys, resources are identified, then an evaluation of significance, based on the City Guidelines, must be performed by a qualified archaeologist.</p> <p>Step 2</p> <p>Where a recorded archaeological site or Tribal Cultural Resource (as defined in the Public Resources Code) is identified, the City shall initiate consultation with identified California Indian tribes pursuant to the provisions in Public Resources Code Sections 21080.3.1 and 21080.3.2, in accordance with Assembly Bill 52 (AB 52). It should be noted that during the consultation process, tribal representative(s) will be involved in making recommendations regarding the significance of a tribal cultural resource which also could be a prehistoric archaeological site. A testing program may be recommended which requires reevaluation of the proposed project in consultation with the Native American representative, which could result in a combination of project redesign to avoid and/or preserve significant resources, as well as mitigation in the form of data recovery and monitoring (as recommended by the qualified archaeologist and Native American representative). The archaeological testing program, if required, shall include evaluating the horizontal and vertical dimensions of a site, the chronological placement, site function, artifact/ecofact density and variability, presence/absence of subsurface features, and research potential. A thorough discussion of testing methodologies including surface and subsurface investigations can be found in the City of San Diego's Historical Resources Guidelines. Results of the consultation process will determine the nature and extent of any additional archaeological evaluation or changes to the proposed project.</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>The results from the testing program will be evaluated against the Significance Thresholds found in the Guidelines. If significant historical resources are identified within the area of potential effects (APE), the site may be eligible for local designation. However, this process would not proceed until such time that the tribal consultation has been concluded and an agreement is reached (or not reached) regarding significance of the resource and appropriate mitigation measures are identified. The final testing report must be submitted to Historical Resources Board staff for eligibility determination and possible designation. An agreement on the appropriate form of mitigation is required prior to distribution of a draft environmental document. If no significant resources are found and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation and testing phase indicates there is still a potential for resources to be present in portions of the property that could not be tested, then mitigation monitoring is required.</p> <p>Step 3</p> <p>Preferred mitigation for archaeological resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. For archaeological resources where preservation is not an option, a Research Design and Data Recovery Program is required, which includes a Collections Management Plan for review and approval. When tribal cultural resources are present and also cannot be avoided, appropriate and feasible mitigation will be determined through the tribal consultation process and incorporated into the</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>overall data recovery program, where applicable, or project specific mitigation measures incorporated into the project. The data recovery program shall be based on a written research design and is subject to the provisions as outlined in CEQA Section 21083.2. The data recovery program must be reviewed and approved by the City's Environmental Analyst prior to distribution of a draft CEQA document and shall include the results of the tribal consultation process. Archaeological monitoring may be required during building demolition and/or construction grading when significant resources are known or suspected to be present on a site, but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development or dense vegetation.</p> <p>A Native American observer must be retained for all subsurface investigations, including geotechnical testing and other ground disturbing activities whenever a tribal cultural resource or any archaeological site located on City property, or within the APE of a City project, would be impacted. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of California Public Resources Code Section 5097 must be followed. In the event that human remains are discovered during project grading, work shall halt in that area and the procedures set forth in the California Public Resources Code (Section 5097.98) and State Health and Safety Code (Section 7050.5), and in the federal, state, and local regulations described above shall be undertaken. These provisions would be outlined in the Mitigation Monitoring and Reporting Program included in a subsequent project-specific environmental document. The Native American monitor shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources. If the Native American community requests participation of an observer for subsurface investigations on private property, the request shall be honored.</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>Step 4</p> <p>Archaeological Resource Management reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the Guidelines. The discipline shall be tailored to the resource under evaluation. In cases involving complex resources, such as traditional cultural properties, rural landscape districts, sites involving a combination of prehistoric and historic archaeology, or historic districts, a team of experts will be necessary for a complete evaluation. Specific types of historical resource reports are required to document the methods (see Section III of the Guidelines) used to determine the presence or absence of historical resources; to identify the potential impacts from proposed development and evaluate the significance of any identified historical resources; to document the appropriate curation of archaeological collections (e.g. collected materials and the associated records); in the case of potentially significant impacts to historical resources, to recommend appropriate mitigation measures that would reduce the impacts to below a level of significance; and to document the results of mitigation and monitoring programs, if required.</p> <p>Archaeological Resource Management reports shall be prepared in conformance with the California Office of Historic Preservation "Archaeological Resource Management Reports: Recommended Contents and Format" (see Appendix C of the Historical Resources Guidelines), which will be used by Environmental staff in the review of archaeological resource reports. Consultants must ensure that archaeological resource reports are prepared consistent with this checklist. This requirement will standardize the content and format of all archaeological technical reports submitted to the City. A confidential appendix must be submitted (under separate cover), along with historical resource reports for archaeological sites and tribal cultural resources, containing the confidential resource maps and records search information gathered during the background</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>study. In addition, a Collections Management Plan shall be prepared for projects that result in a substantial collection of artifacts, which must address the management and research goals of the project, the types of materials to be collected and curated based on a sampling strategy that is acceptable to the City of San Diego. Appendix D (Historical Resources Report Form) may be used when no archaeological resources were identified within the project boundaries.</p> <p>Step 5</p> <p>For Archaeological Resources: All cultural materials, including original maps, field notes, non- burial related artifacts, catalog information and final reports recovered during public and/or private development projects must be permanently curated with an appropriate institution, one which has the proper facilities and staffing for insuring research access to the collections consistent with state and federal standards unless otherwise determined during the tribal consultation process. In the event that a prehistoric and/or historical deposit is encountered during construction monitoring, a Collections Management Plan would be required in accordance with the project Mitigation Monitoring and Reporting Program. The disposition of human remains and burial- related artifacts that cannot be avoided or are inadvertently discovered is governed by state (i.e., Assembly Bill 2641 [Coto] and California Native American Graves and Repatriation Act of 2001 [Health and Safety Code 8010-8011]) and federal (i.e., federal Native American Graves and Repatriation Act [United States Code 3001-3013]) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation.</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>Arrangements for long-term curation of all recovered artifacts must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance. When tribal cultural resources are present, or non-burial-related artifacts associated with tribal cultural resources are suspected to be recovered, the treatment and disposition of such resources will be determined during the tribal consultation process. This information must then be included in the archaeological survey, testing, and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collections (dated May 7, 1993) and, if federal funding is involved, Title 36 of the Code of Federal Regulations Part 79. Additional information regarding curation is provided in Section II of the Historical Resources Guidelines.</p> <p><b>MM-HIST-1b:</b> Prior to issuance of any development permit for a subsequent project tiering off the MPU that could directly affect an archaeological or tribal cultural resource; the City shall require the following steps be taken to determine: (1) the presence of archaeological or tribal cultural resources and (2) the appropriate mitigation for any significant resources which may be impacted by a development activity. Sites may include, but are not limited to, privies, trash pits, building foundations, and industrial features representing the contributions of people from diverse socio-economic and ethnic backgrounds. Resources may also include resources associated with prehistoric Native American activities.</p> <p>Initial Determination</p> <p>The environmental analyst shall determine the likelihood for the project site to contain historical resources by reviewing site photographs and existing historic information (e.g., Archaeological Sensitivity Maps, the Archaeological Map Book, and the California Historical Resources Inventory System and the City's "Historical</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>Inventory of Important Architects, Structures, and People in San Diego”) and may conduct a site visit. If there is any evidence that the project area contains archaeological or tribal cultural resources, then an archaeological evaluation consistent with City Guidelines would be required. All individuals conducting any phase of the archaeological evaluation program must meet professional qualifications in accordance with the City’s Historical Resources Guidelines.</p> <p>Step 1</p> <p>Based on the results of the initial determination, if there is evidence that the project area contains archaeological resources, preparation of an evaluation report is required. The evaluation report could generally include background research, field survey, archaeological testing, and analysis. Before actual field reconnaissance would occur, background research is required that includes a record search at the South Coastal Information Center at San Diego State University. A review of the Sacred Lands File maintained by the NAHC must also be conducted at this time. Information about existing archaeological collections should also be obtained from the San Diego Archaeological Center and any tribal repositories or museums.</p> <p>Once the background research is complete, a field reconnaissance must be conducted by individuals whose qualifications meet City standards. Consultants are encouraged to employ innovative survey techniques when conducting enhanced reconnaissance including, but not limited to, remote sensing, ground penetrating radar, and other soil resistivity techniques as determined on a case-by-case basis. Native American participation is required for field surveys when there is likelihood that the project site contains prehistoric archaeological resources or tribal cultural resources. If, through background research and field surveys, resources are identified, then an evaluation of significance, based on the City Guidelines,</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>must be performed by a qualified archaeologist.</p> <p>Step 2</p> <p>Where a recorded archaeological site or Tribal Cultural Resource (as defined in the Public Resources Code) is identified, the City shall initiate consultation with identified California Indian tribes pursuant to the provisions in Public Resources Code Sections 21080.3.1 and 21080.3.2, in accordance with AB 52. It should be noted that during the consultation process, tribal representative(s) will be involved in making recommendations regarding the significance of a tribal cultural resource which also could be a prehistoric archaeological site. A testing program may be recommended which requires reevaluation of the proposed project in consultation with the Native American representative, which could result in a combination of project redesign to avoid and/or preserve significant resources, as well as mitigation in the form of data recovery and monitoring (as recommended by the qualified archaeologist and Native American representative). The archaeological testing program, if required, shall include evaluating the horizontal and vertical dimensions of a site, the chronological placement, site function, artifact/ecofact density and variability, presence/absence of subsurface features, and research potential. A thorough discussion of testing methodologies including surface and subsurface investigations can be found in the City of San Diego's Historical Resources Guidelines. Results of the consultation process will determine the nature and extent of any additional archaeological evaluation or changes to the proposed project.</p> <p>The results from the testing program will be evaluated against the Significance Thresholds found in the Guidelines. If significant historical resources are identified within the APE, the site may be eligible for local designation. However, this process would not proceed until such time that the tribal consultation has been concluded and an agreement is reached (or not reached) regarding</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>significance of the resource and appropriate mitigation measures are identified. The final testing report must be submitted to Historical Resources Board staff for eligibility determination and possible designation. An agreement on the appropriate form of mitigation is required prior to distribution of a draft environmental document. If no significant resources are found and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation and testing phase indicates there is still a potential for resources to be present in portions of the property that could not be tested, then mitigation monitoring is required.</p> <p>Step 3</p> <p>Preferred mitigation for archaeological resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. For archaeological resources where preservation is not an option, a Research Design and Data Recovery Program is required, which includes a Collections Management Plan for review and approval. When tribal cultural resources are present and also cannot be avoided, appropriate and feasible mitigation will be determined through the tribal consultation process and incorporated into the overall data recovery program, where applicable, or project specific mitigation measures incorporated into the project. The data recovery program shall be based on a written research design and is subject to the provisions as outlined in CEQA Section 21083.2. The data recovery program must be reviewed and approved by the City's Environmental Analyst prior to distribution of</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>a draft CEQA document and shall include the results of the tribal consultation process. Archaeological monitoring may be required during building demolition and/or construction grading when significant resources are known or suspected to be present on a site, but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development or dense vegetation.</p> <p>A Native American observer must be retained for all subsurface investigations, including geotechnical testing and other ground disturbing activities whenever a tribal cultural resource or any archaeological site located on City property, or within the APE of a City project, would be impacted. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of California Public Resources Code Section 5097 must be followed. In the event that human remains are discovered during project grading, work shall halt in that area and the procedures set forth in the California Public Resources Code (Section 5097.98) and State Health and Safety Code (Section 7050.5), and in the federal, state, and local regulations described above shall be undertaken. These provisions would be outlined in the Mitigation Monitoring and Reporting Program included in the environmental document. The Native American monitor shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources. If the Native American community requests participation of an observer for subsurface investigations on private property, the request shall be honored.</p> <p>Step 4</p> <p>Archaeological Resource Management reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the Guidelines. The discipline shall be tailored to the resource under evaluation. In cases involving complex resources,</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>such as traditional cultural properties, rural landscape districts, sites involving a combination of prehistoric and historic archaeology, or historic districts, a team of experts will be necessary for a complete evaluation. Specific types of historical resource reports are required to document the methods (see Section III of the Guidelines) used to determine the presence or absence of historical resources; to identify the potential impacts from proposed development and evaluate the significance of any identified historical resources; to document the appropriate curation of archaeological collections (e.g., collected materials and the associated records); in the case of potentially significant impacts to historical resources, to recommend appropriate mitigation measures that would reduce the impacts to below a level of significance; and to document the results of mitigation and monitoring programs, if required.</p> <p>Archaeological Resource Management reports shall be prepared in conformance with the California Office of Historic Preservation "Archaeological Resource Management Reports: Recommended Contents and Format" (see Appendix C of the Historical Resources Guidelines), which will be used by Environmental staff in the review of archaeological resource reports. Consultants must ensure that archaeological resource reports are prepared consistent with this checklist. This requirement will standardize the content and format of all archaeological technical reports submitted to the City. A confidential appendix must be submitted (under separate cover), along with historical resource reports for archaeological sites and tribal cultural resources, containing the confidential resource maps and records search information gathered during the background study. In addition, a Collections Management Plan shall be prepared for projects that result in a substantial collection of artifacts, which must address the management and research goals of the project, the types of materials to be collected and curated based on a sampling strategy that is acceptable to the City of San Diego. Appendix D (Historical Resources Report Form) may be used when</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>no archaeological resources were identified within the project boundaries.</p> <p>Step 5</p> <p>For Archaeological Resources: All cultural materials, including original maps, field notes, non- burial related artifacts, catalog information and final reports recovered during public and/or private development projects must be permanently curated with an appropriate institution, one which has the proper facilities and staffing for insuring research access to the collections consistent with state and federal standards. In the event that a prehistoric and/or historical deposit is encountered during construction monitoring, a Collections Management Plan would be required in accordance with the project Mitigation Monitoring and Reporting Program. The disposition of human remains and burial- related artifacts that cannot be avoided or are inadvertently discovered is governed by state (i.e., AB 2641 and California NAGPRA) and federal (i.e., federal NAGPRA) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation.</p> <p>Arrangements for long-term curation must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance, and must be included in the archaeological survey, testing, and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collections (dated May 7, 1993) and, if federal funding is involved, Part 36, Section 79 of the Code of Federal Regulations. Additional information regarding curation is provided in Section II of the Historical Resources Guidelines.</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<p>Would implementation of the Plans and associated discretionary actions adversely impact a prehistoric archaeological resource including religious or sacred sites?</p>	<p>Impacts on known archaeological resources associated with religious or sacred uses, and those not yet found and formally recorded, could occur anywhere within the Park. Grading of original in situ soils could also expose buried archaeological resources and features including sacred sites. Potential impacts on archaeological religious or sacred uses associated with subsequent projects implemented in accordance with the Plans would be considered significant (Impact HIST-2).</p>	<p><b>MM-HIST-1a</b> (see above) would reduce Impact HIST-2 to less than significant. MM-HIST-1a requires consultation with Native American tribes early in the development review process.</p>	<p>Less than Significant</p>
<p>Would implementation of the Plans and associated discretionary actions adversely impact a prehistoric archaeological resource including human remains?</p>	<p>Impacts associated with the disturbance and/or discovery of human remains could occur anywhere within the Park. Grading of original in situ soils could also expose buried human remains. Potential impacts on human remains associated with subsequent projects implemented in accordance with the Plans would be significant (Impact HIST-3).</p>	<p><b>MM-HIST-1a</b> (see above) would reduce Impact HIST-3 to less than significant. MM-HIST-1a requires compliance with regulations set forth in California Public Resources Code Section 5097.98 and State Health and Safety Code Section 7050.5 in the event that human remains are discovered.</p>	<p>Less than Significant</p>
<p>Would implementation of the Plans and associated discretionary actions cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074?</p>	<p>Impacts on tribal cultural resources not yet found and formally recorded could occur anywhere within the Park. Grading of original in situ soils could also expose buried tribal cultural resources and features including sacred sites. Potential impacts on tribal cultural resources associated with subsequent projects implemented in accordance with the Plans would be considered significant (Impact HIST-4).</p>	<p><b>MM-HIST-1a</b> (see above) would reduce Impact HIST-4 to less than significant. MM-HIST-1a requires tribal consultation in accordance with AB 52.</p>	<p>Less than Significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<b>Human Health/Public Safety/Hazardous Materials</b>			
<p>Would implementation of the Plans and associated discretionary actions expose people or property to health hazards, including wildfire hazards?</p>	<p>MPU recommendations would generally serve to further educate Park users about wildfire risks within the Park, and would not alter or significantly increase the potential exposure of recreational users of the Park. Other MPU recommendations contemplate subsequent projects, such as offices for Park rangers, shade structures, and picnic areas. These facilities would be subject to potential damage from wildfire. Therefore, impacts associated with the exposure of structures to wildfire hazards would be significant (Impact HAZ-1).</p> <p>Subsequent projects contemplated by the MPU would not interfere with emergency response plans, and evacuation routes within the Park would generally improve over time as these projects are implemented. Impacts related to emergency response and evacuation would be less than significant.</p>	<p><b>MM-HAZ-1:</b> Specific regulations associated with fire prevention are provided in Section 55.0101 (Adoption of the California Fire Code), Section 55.0901 (Fire Department Access and Water Supply), and Section 55.1001 (Fire Protection Systems and Equipment) of the Municipal Code.</p> <p>The Municipal Code provides fire safety regulations in Municipal Code Section 142.0412 (Brush Management Regulations). Individual projects implemented pursuant to the Master Plan would be required to demonstrate compliance with applicable fire codes and would be required to implement applicable Brush Management Regulations under Section 142.0412 of the Municipal Code. These regulations include the following:</p> <ul style="list-style-type: none"> <li>• Brush management is required in all base zones on publicly or privately owned premises that are within 100 feet of a structure and contain native or naturalized vegetation.</li> <li>• Brush management activity is permitted within ESLs (except for wetlands) that are located within 100 feet of an existing structure in accordance with Section 143.0110(c)(7). Brush management in wetlands shall be requested with a development permit in accordance with Section 143.0110 where the Fire Chief deems brush management necessary in accordance with Section 142.0412(i). Where brush management in wetlands is deemed necessary by the Fire Chief, that brush management shall not qualify for an exemption under ESL Regulations, Section 143.0110(c)(7).</li> <li>• Brush Management Zones. Where brush management is required, a comprehensive program shall be implemented that reduces fire hazards around structures by providing an effective fire break between all structures and contiguous areas of native or naturalized vegetation. This fire break shall</li> </ul>	<p>Less than Significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>consist of two distinct brush management areas called "Zone One" and "Zone Two."</p> <ul style="list-style-type: none"> <li>• Brush Management Zone 2 is the area between Zone 1 and any area of native or naturalized vegetation and typically consists of thinned, native or naturalized non-irrigated vegetation.</li> <li>• Brush management activities are prohibited within coastal sage scrub, maritime succulent scrub, and coastal sage-chaparral habitats from March 1 through August 15 (bird nesting season), except where documented to the satisfaction of the City Manager that the thinning would be consistent with conditions of species coverage described in the MSCP Subarea Plan.</li> </ul>	
<p>Would implementation of the Plans and associated discretionary actions create future risk of an explosion of the release of hazardous substance (including, but not limited to gas, oil, pesticides, chemicals, radiation)? Would the Plans expose people or the environment to a significant hazard through the routine transport, use or disposal of hazardous materials?</p>	<p>Future projects implemented in accordance with the Plans would be subject to applicable federal, state, and local regulations related to the hazardous materials. Therefore, impacts would be less than significant.</p>	<p>None required.</p>	<p>Less than significant</p>
<p>Would implementation of the Plans and associated discretionary actions be located on a site which is</p>	<p>The study area currently represents an ongoing hazard due to the potential presence of unexploded ordnance (UXO). As a result, subsequent projects contemplated</p>	<p>Formerly Used Defense Sites <b>MM-HAZ-2:</b> Prior to initiating subsequent projects contemplated by the Plans that could involve subsurface disturbance within the former Camp Elliott Formerly Used Defense Site (FUDS), the City</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<p>included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and as a result, create a significant hazard to the public or environment?</p>	<p>by the Plans could expose people to hazards associated with UXO. Impacts would be significant (Impact HAZ-2).</p> <p>Although no sites were identified through the regulatory database searches, there is a potential for unknown or buried hazardous substances to be encountered during ground-disturbing activities. Impacts would be significant (Impact HAZ-3).</p>	<p>shall verify that the USACE has completed subsurface UXO clearance of the entire site, or a Remedial Action Work Plan (RAWP) shall be prepared and implemented in accordance with requirements and procedures of the Department of Toxic Substances Control (DTSC), in consultation with the USACE.</p> <p>The RAWP, including a Health and Safety Plan, shall be prepared prior to grading or ground disturbance in accordance with requirements and procedures of the DTSC. The RAWP shall thoroughly describe investigations and disposal activities. The draft RAWP shall be reviewed and approved by City local enforcement agency staff and the DTSC, in consultation with the USACE.</p> <p>At a minimum, the RAWP shall include the following performance criteria:</p> <ul style="list-style-type: none"> <li>• Prior to initiation of UXO clearance activities all Park personnel and adjacent property owners shall be notified.</li> <li>• Implementation of the RAWP shall be performed by a qualified contractor.</li> <li>• Access into the work sites shall be limited to the contractor personnel specifically authorized to enter the work site.</li> <li>• Prior to initiation of detonation operations, all nonessential personnel shall be evacuated to a distance outside the fragmentation zone of the UXO to be detonated; radio communication shall be maintained between all concerned parties.</li> <li>• Where detonation activities in proximity to schools are needed, they shall occur outside of typical school hours, as feasible.</li> </ul>	

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Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<ul style="list-style-type: none"> <li>• Affected areas shall be secured prior to authorizing detonation of explosive charges. Signs shall be posted announcing blasting danger and guards shall be stationed at all likely pedestrian/recreational user entrances.</li> <li>• When a detonation-in-place is to occur, contractor personnel shall be posted in a 360-degree radius around the detonation site, at a safe distance.</li> <li>• No disposal procedures shall be applied until the item has been positively identified. After the inspection has been completed, and providing there are no residual hazards, the UXO Senior Supervisor shall authorize the resumption of site operations. In the event that an UXO cannot be destroyed on-site, or if an unidentified UXO is located, the Safety Representative shall be notified for appropriate assistance.</li> </ul> <p>The RAWP shall detail the environmental investigations and define the procedures for disposing of UXO determined unsafe to move or handle (e.g., detonation-in-place disposal). Also to be included as part of the RAWP is an Explosive Safety Submission report that outlines the safety aspects associated with investigating and removing UXO. The potential for encountering UXO during the removal action poses a risk to on-site workers, nearby populations, and the environment. The Health and Safety Plan is an integral component of the RAWP and shall include safety precautions that all personnel must adhere to during implementation of the work plan. Violation of UXO-related safety precautions shall be grounds of dismissal.</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>The Health and Safety Plan shall also provide instructions for workers on standard work practices, hazard communication, identification, handling, removal, transportation, and detonation. These precautions may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Prior to detonation of an UXO, sandbags filled with construction grade sand shall be utilized to tamp the detonation and minimize damage to nearby trees and shrubs. The preparation shall be thoroughly soaked with water and the immediate area watered well to minimize the possibility of secondary fires.</li> <li>• Carry blasting caps in approved containers, and keep them out of the direct rays of the sun.</li> <li>• Do not use explosives or accessory equipment that are obviously deteriorated or damaged. They may detonate prematurely or fail completely.</li> <li>• Disposal operations shall not be initiated until at least one-half hour after sunrise and shall be concluded by at least one-half hour prior to sunset.</li> <li>• Restrict and control access to the disposal site to a minimum of authorized personnel necessary for safe conduct of the disposal operations.</li> <li>• Do not carry fire- or spark-producing devices into a disposal site except as specifically authorized.</li> </ul> <p>The procedure for completing subsurface investigations and clearance is described below:</p> <ul style="list-style-type: none"> <li>• The project site shall be surveyed and marked out in 100-by-100-square-foot grids.</li> <li>• A Schonstedt detector shall be used to locate surface and subsurface anomalies.</li> </ul>	

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Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<ul style="list-style-type: none"> <li>• Motor vehicles shall be restricted to existing, actively used roads, during normal operations.</li> <li>• Personnel shall drive as near as practical to the work site and walk into and out of the grid(s).</li> <li>• In the event of a medical or fire emergency, vehicles shall be utilized wherever necessary.</li> </ul> <p>Depending on the terrain at the project location, different sweep techniques shall be used. Varying sweep line intervals may be required. If the terrain is too steep to sweep safely, that portion of the grid not swept shall be mapped; and it would become the team leader's responsibility to devise the clearance method(s) suitable to the specific grid to assure complete clearance.</p> <p>During the removal, all personnel shall receive highly specialized training. Personnel shall be briefed of safety regulations every day. Hazards of unexploded munitions shall be explained at each briefing, including other risks, such as those posed by rattlesnakes and poison oak, etc. Should UXO items be discovered during removal actions, proper procedures (as detailed in the RAWP) shall be followed to ensure safe disposal. For example, a metal containment system may be placed around the item and then detonated by remote control from a safe distance.</p> <p>All UXO shall undergo an initial assessment to identify the ordnance. No disposal procedures shall be applied until the item has been positively identified. In the event that an UXO cannot be destroyed on-site, or if an unidentified UXO is located, a Safety Representative shall be notified for appropriate assistance in accordance with applicable regulations.</p> <p>Other Hazardous Material Sites</p> <p><b>MM-HAZ-3:</b> Subsequent projects contemplated by the Plans that involve ground disturbance may occur in areas of known</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>environmental concern. Such as leaking underground storage tank sites or other potentially contaminated sites. Regulations within the Municipal Code require that future projects shall demonstrate that the site is suitable for the proposed use. For sites with recorded hazardous material concerns, the City or project applicant shall obtain confirmation from the County Department of Environmental Health (DEH) that the site has been remediated to the extent required for the proposed use. Clearance may be provided by County DEH when no hazardous materials are known, or expected to be present, or when remediation is required to be completed prior to clearance. Only upon receipt of DEH clearance would projects be recommended for approval.</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<b>Hydrology and Water Quality</b>			
<p>Would implementation of the Plans and associated discretionary actions result in an increase in impervious surfaces and associated increased runoff? Would the Plans result in a substantial alteration to on- and off-site drainage patterns due to changes runoff flow rates or volumes?</p>	<p>Subsequent projects contemplated by the MPU, such as parking areas, would have the potential to increase the amount of impervious surfaces, which could result in additional runoff to a point that would change drainage patterns from the additional flow rate or volume. Therefore, impacts would be significant (Impact HYD/WQ-1).</p>	<p><b>MM-HYD/WQ-1:</b> Prior to approval of subsequent projects implemented in accordance with the MPU that involve impervious surfaces creation, the applicant shall demonstrate to the satisfaction of the City Engineer, that future projects are sited and designed to minimize impacts on absorption rates, drainage patterns, and surface runoff rates and floodwaters in accordance with current City and RWQCB regulations identified below. Future design of projects shall incorporate all applicable and practicable measures outlined below in accordance with the storm water construction requirements of the State Construction General Permit, Order No. 2009-00090DWQ, or subsequent order, and the Municipal Storm Water Permit, Order No. R9-2013-0001, or subsequent order, RWQCB, the City Storm Water Runoff and Drainage Regulations (Chapter 14, Article 2, Division 2 of the LDC), and the LDC, and shall be based on the recommendations of a detailed water quality and hydraulic analysis.</p> <p>a. San Diego RWQCB</p> <ul style="list-style-type: none"> <li>• Comply with all National Pollutant Discharge Elimination System (NPDES) permit(s) requirements, including the development of a SWPPP if the disturbed soil area is one acre or more, or a Water Quality Control Plan if less than one acre, in accordance with the City's Storm Water Standards.</li> <li>• If a future project includes in-water work, a Section 404 Permit (from USACE) and a Streambed Alteration Agreement (from CDFW) shall be required.</li> <li>• Comply with the San Diego RWQCB water quality objectives and bacteria Total Maximum Daily Load (TMDL) and Los Peñasquitos Lagoon Sediment TMDL.</li> </ul>	<p>Less than Significant</p>

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Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>b. City of San Diego</p> <p>To prevent flooding, subsequent projects implemented in accordance with the MPU shall be designed to incorporate any applicable measures from the City of San Diego Land Development Code, ESL Regulations (Ch. 14, Art 03, Div. 01, Sec. 193.0145 and 193.0146). Flood control measures that shall be incorporated into future projects within a Special Flood Hazard Area (SFHA), or within a 100-year floodway, include but are not limited to the following:</p> <ul style="list-style-type: none"> <li>• Prior to issuance of building permits or approval of any project within or in the vicinity of a floodway or SFHA, all proposed development within a SFHA is subject to the following requirements and all other applicable requirements and regulations of Federal Emergency Management Agency (FEMA) and those provided in Chapter 14, Article 3, Division 1 of the LDC.</li> <li>• In all floodways, any encroachment, including fill, new construction, significant modifications, and other development, is prohibited unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge except as allowed under Code of Federal Regulations Title 44, Chapter 1, Part 60.3(c) (13).</li> <li>• If the engineering analysis shows that development will alter the floodway or floodplain boundaries of the SFHA, a Conditional Letter of Map Revision from FEMA shall be obtained.</li> <li>• Fill placed in the SFHA for the purpose of creating a building pad shall be compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test Fill method issued</li> </ul>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>by the American Society for Testing and Materials (ASTM). Granular fill slopes shall have adequate protection for a minimum flood water velocity of five feet per second.</p> <ul style="list-style-type: none"> <li>• Improvement plans shall note “Subject to Inundation” for all areas lower than the base elevation plus two feet.</li> <li>• If structures will be elevated on fill such that the lowest adjacent grade is at or above the base flood elevation, a Letter of Map Revision based on Fill (LOMR-F) must be obtained prior to occupancy. The developer or applicant shall provide all documentation, engineering calculations, and fees required by FEMA to process and approve the LOMR-F.</li> <li>• In accordance with Chapter 14, Article 3, Division 1 of the LDC channelization or other substantial alteration of rivers or streams shall be limited to essential public service projects, flood control projects, or projects where the primary function is the improvement of fish and wildlife habitat. The channel shall be designed to ensure that the following occur: <ul style="list-style-type: none"> <li>▪ Stream scour is minimized.</li> <li>▪ Erosion protection is provided.</li> <li>▪ Water flow velocities are maintained as specified by the City Engineer.</li> <li>▪ There are neither significant increases nor contributions to downstream bank erosion and sedimentation of sensitive biological resources; acceptable techniques to control stream sediment include planting riparian vegetation in and near the stream and detention or retention basins.</li> <li>▪ Wildlife habitat and corridors are maintained.</li> <li>▪ Groundwater recharge capability is maintained or improved.</li> </ul> </li> </ul>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<ul style="list-style-type: none"> <li>• Within the flood fringe of a SFHA or floodway, permanent structures and fill for permanent structures, roads, and other development are allowed only if the following conditions are met:               <ul style="list-style-type: none"> <li>▪ The development or fill shall not significantly adversely affect existing sensitive biological resources on-site or off-site.</li> <li>▪ The development is capable of withstanding flooding and does not require or cause the construction of off-site flood protective works including artificial flood channels, revetments, and levees nor shall it cause adverse impacts related to flooding of properties located upstream or downstream, nor shall it increase or expand a FIRM Zone A.</li> <li>▪ Grading and filling are limited to the minimum amount necessary to accommodate the proposed development, harm to the environmental values of the floodplain is minimized including peak flow storage capacity, and wetlands hydrology is maintained.</li> <li>▪ The development neither significantly increases nor contributes to downstream bank erosion and sedimentation nor causes an increase in flood flow velocities or volume.</li> <li>▪ There shall be no significant adverse water quality impacts to downstream wetlands, lagoons, or other sensitive biological resources, and the development is in compliance with the requirements and regulations of the NPDES as implemented by the City of San Diego.</li> </ul> </li> </ul>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Would implementation of the Plans and associated discretionary actions result in modifications to the natural drainage system would be required for implementation of the Plans?	Subsequent projects contemplated by the MPU, such as parking areas, would have the potential to adversely affect natural drainage patterns. Therefore, impacts would be significant (Impact HYD/WQ-2).	Implementation of <b>MM-HYD/WQ-1</b> would reduce Impact HYD/WQ-2 to less than significant.	Less than significant
Would implementation of the Plans and associated discretionary actions result in alterations to the course or flow of flood waters?	Subsequent projects implemented in accordance with the MPU would have the potential to impact FEMA-designated 100-year floodplains, the San Diego River, and other SFHAs within the study area. Because the drainage characteristics and the specific location of each subsequent project is dependent upon future project design, impacts associated with subsequent projects implemented in accordance with the MPU would be significant (Impact HYD/WQ-3).	Implementation of <b>MM-HYD/WQ-1</b> reduce Impact HYD/WQ-3 to less than significant.	Less than significant
Would implementation of the Plans and associated discretionary actions create discharges into surface or ground water, or result in increases in pollutant discharges including downstream sedimentation?	Although various MPU recommendations generally intend to protect water quality, some subsequent projects to be implemented in accordance with the MPU would have the potential to result in water quality impacts. Because each subsequent project is dependent upon future project design, impacts would be significant (Impact HYD/WQ-4).	<p><b>MM-HYD/WQ-2:</b> Subsequent projects implemented in accordance with the MPU shall identify site-specific measures that reduce significant project-level water quality impacts to less than significant levels in accordance with the existing regulatory framework addressing drainage, storm water, and protection of water quality. Where mitigation is determined to be necessary and feasible, measures shall be included in an MMRP for the project.</p> <p>The following general measures would be implemented for future projects within the scope of the Plans. These measures would be updated, expanded, or refined when applied to specific future projects based on project-specific design and changes in existing</p>	Less than significant

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<p>conditions in order to demonstrate compliance with local, state, and federal laws in place at the time future projects are proposed.</p> <p>Future projects shall be sited and designed to minimize impacts on receiving waters, in particular the discharge of identified pollutants to an already impaired water body. Prior to approval of any entitlements for any future project, the City shall require measures to ensure that impacts to receiving waters are fully mitigated in accordance with the requirements of the City's Storm Water Runoff and Drainage Regulations (Chapter 14, Article 2, Division 2 of the LDC) and other appropriate agencies (e.g., RWQCB). To prevent erosion, siltation, and transport of urban pollutants, all future projects shall be designed to incorporate any applicable storm water improvement, both off- and on-site, in accordance with the City of San Diego Storm Water Standards Manual.</p> <p>Storm water improvements and water quality protection measures that shall be required for future projects include:</p> <ul style="list-style-type: none"> <li>• Increasing on-site filtration;</li> <li>• Preserving, restoring, or incorporating natural drainage systems into site design;</li> <li>• Directing concentrated flows away from MHPA and open space areas. If not possible, drainage shall be directed into sediment basins, grassy swales, or mechanical trapping devices prior to draining into the MHPA or open space areas;</li> <li>• Reducing the amount of impervious surfaces through selection of materials, site planning, and narrowing of street widths where possible;</li> <li>• Increasing the use of vegetation in drainage design;</li> <li>• Maintaining landscape design standards that minimize the use of pesticides and herbicides; and</li> </ul>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<ul style="list-style-type: none"> <li>• To the extent practicable, avoiding development of areas particularly susceptible to erosion and sediment loss.</li> </ul> <p>San Diego RWQCB</p> <ul style="list-style-type: none"> <li>• The requirements of the RWQCB for storm water quality are addressed by the City in accordance with the City NPDES requirements and the participation in the regional permit with the RWQCB.</li> <li>• Prior to permit approval, the City shall ensure any impacts on receiving waters are precluded or mitigated in accordance with the City of San Diego Storm Water Regulations</li> <li>• In accordance with the City of San Diego Storm Water Standards Manual, development shall be designed to incorporate on-site storm water improvements satisfactory to the City Engineer and shall be based on the adequacy of downstream storm water conveyance.</li> </ul>	
<b><i>Geology and Soils</i></b>			
<p>Would implementation of the Plans and associated discretionary actions expose people or property to geologic hazards such as earthquakes, landslides, mudslides, liquefaction, ground failure, or similar hazards?</p>	<p>Subsequent projects implemented by the MPU have the potential to result in significant impacts related to geologic hazards. Future structures and improvements implemented in accordance with the MPU would have the potential to be subject to unstable conditions relating to seismicity (faults), liquefaction, landslides, and rockfall. The potential impacts associated with subsequent projects would be evaluated at a project level when detailed plans and grading quantities are known. Adherence to the San Diego Municipal Code and the California Building Code would reduce impacts related to geologic hazards</p>	<p>None required.</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	to an acceptable level of risk, which is considered less than significant from a CEQA perspective. Therefore, impacts would be less than significant.		
Would implementation of the Plans and associated discretionary actions increase the potential for erosion of soils on- or off-site?	Subsequent projects implemented in accordance with the MPU have the potential to result in significant impacts related to increasing the potential for on- or off-site erosion. Based on the steep slopes and highly erosive and poorly consolidated soils within portions of the study area, erosion would represent a potentially significant impact. Future projects implemented in accordance with the MPU would require site-specific evaluation to ensure erosion is minimized to the maximum extent practicable. Adherence to the San Diego Municipal Code, Grading Regulations, and NPDES permit requirements ensures impacts related to erosion would be less than significant. Therefore, impacts would be less than significant.	None required.	Less than significant
<b><i>Paleontological Resources</i></b>			
Would implementation of the Plans and associated discretionary actions allow development to occur that could significantly impact a unique paleontological resource or a geologic formation possessing a moderate to high fossil-	Subsequent projects implemented in accordance with the MPU would have the potential to result in significant impacts to paleontological resources if they exceed the excavation and depth thresholds of significance, or involve substantial grading within any of the formations with a moderate or high resource sensitivity rating. Therefore, impacts would be significant	<b>MM-PALEO-1:</b> Prior to Project Approval:  A. The environmental analyst shall complete a project-level analysis of potential impacts on paleontological resources. The analysis shall include a review of the applicable U.S. Geological Survey Quad maps to identify the underlying geologic formations, and shall determine if construction of a project would:	Less than Significant

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
bearing potential?	(Impact PALEO-1).	<ul style="list-style-type: none"> <li>• Require over 1,000 cubic yards of excavation and/or a 10-foot, or greater, depth in a high resource potential geologic deposit/formation/rock unit.</li> <li>• Require over 2,000 cubic yards of excavation and/or a 10-foot, or greater, depth in a moderate resource potential geologic deposit/formation/rock unit.</li> <li>• Require construction within a known fossil location or fossil recovery site.</li> </ul> <p>Resource potential within a formation is based on the Paleontological Monitoring Determination Matrix (City of San Diego 2011a).</p> <p>B. If construction of a project would occur within a formation with a moderate to high resource potential, monitoring during construction would be required.</p> <ul style="list-style-type: none"> <li>• Monitoring is always required when grading on a fossil recovery site or a known fossil location.</li> <li>• Monitoring may also be needed at shallower depths if fossil resources are present or likely to be present after review of source materials or consultation with an expert in fossil resources (e.g., the San Diego Natural History Museum).</li> <li>• Monitoring may be required for shallow grading (less than 10 feet) when a site has previously been graded and/or unweathered geologic deposits/formations/rock units are present at the surface.</li> <li>• Monitoring is not required when grading documented artificial fill.</li> </ul> <p>When it has been determined that a future project has the potential to impact a geologic formation with a high</p>	

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		or moderate fossil sensitivity rating a paleontological MMRP shall be implemented during construction grading activities.	
<b>Transportation/Circulation</b>			
Would implementation of the Plans and associated discretionary actions result in an increase in projected traffic that is substantial in relation to the capacity of the circulation system?	Subsequent projects implemented in accordance with the MPU, such as trails, park benches, and restrooms, would not attract a significant number of new visitors to the Park that would in turn result in a substantial increase in traffic. Other subsequent projects, such as the parking areas, would not result in a substantial increase in traffic in relation to the capacity of the existing circulation system because these parking areas would generally be traffic accommodating, rather than traffic generating. In addition, the estimated traffic volumes do not exceed established thresholds that generally trigger the need for a further traffic analysis. Based on these factors, it is not anticipated that subsequent projects implemented in accordance with the MPU would result in a substantial increase in traffic in relation to the capacity of the existing circulation system. Impacts would be less than significant.	None required.	Less than significant
Would implementation of the Plans and associated discretionary actions create alterations to present circulation movements in the area including effects on	Subsequent projects implemented in accordance with the MPU could create alterations to present circulation movements due to the creation of new access points from area roads to provide for new off-street parking areas. As detailed	<b>MM-TRAF-1:</b> Subsequent projects implemented in accordance with the MPU that would have the potential to alter existing circulation or affect existing access points, including (but not necessarily limited to) MPU Facility Recommendations CM-F1, CM-F2, CM-F3, and MG-F6 shall be required to submit the necessary analysis, design plans, and any other requirements pursuant to the discretion of the City's	Less than significant

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
existing public access points?	plans for these subsequent projects are not available at this time, it cannot be guaranteed that they would be designed in a manner that would avoid significant circulation and access impacts. Therefore, impacts would be significant (Impact TRAF-1).	<p>Engineer. Measures that shall be considered during subsequent project review to minimize potential impacts from pedestrian/bicyclist/vehicle conflicts and to enhance circulation include (but not necessarily limited to):</p> <ul style="list-style-type: none"> <li>• Appropriate signage</li> <li>• Review for adequate sight distance, preparation of sight distance studies, and mitigation, where needed</li> <li>• Road striping</li> <li>• Crosswalks, where needed</li> <li>• Sidewalks and pathways for pedestrian access</li> <li>• Bollards</li> </ul>	
Would implementation of the Plans and associated discretionary actions impact the availability of parking?	As the recommended parking areas would improve accessibility to the Park by providing additional parking areas, these recommendations would have an overall parking benefit. In addition, the parking areas would reduce current demand for parking on local residential streets. As a result, impacts related to parking would be less than significant.	None required.	Less than significant
Would implementation of the Plans and associated discretionary actions conflict with the adopted policies, plans, or programs supporting alternative transportation modes (e.g., bus turnouts, trolley extensions, bicycle lanes, bicycle racks, etc.)?	Implementation of the MPU would be consistent with existing policies supporting alternative transportation modes. Various MPU recommendations would support alternative modes of transportation and would not create a conflict with existing plans or policies. Therefore, impacts would be less than significant.	None required.	Less than significant

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<b>Public Services</b>			
<p>Would implementation of the Plans and associated discretionary actions promote growth patterns resulting in the need for and/or provision of new or physically altered public facilities, the construction of which could cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives?</p>	<p>Implementation of the Plans and associated discretionary actions would not result in an increase in population; therefore, no direct impact associated with the construction of public facilities would occur. Recreational amenities and trail improvements would be developed over time, and would not likely attract a significant new amount of visitors due to any specific subsequent project. In addition, numerous MPU recommendations serve to reduce other potential indirect impacts. Therefore, indirect impacts related to new facilities for police services, fire protection services, and parks would be less than significant.</p>	<p>None required.</p>	<p>Less than significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
<b>Public Utilities</b>			
<p>Would implementation of the Plans and associated discretionary actions result in the need for new utilities or require substantial alterations to existing utilities including water and wastewater infrastructure, electricity and gas transmission lines, storm water drainage systems, solid waste disposal facilities, or communication systems, the construction of which would create a physical effect on the environment?</p>	<p>Implementation of the Plans would not result in the need for new utilities or services or require alterations to existing utilities including water and wastewater infrastructure, electricity and gas transmission lines, solid waste, or communication systems.</p> <p>Subsequent projects implemented in accordance with the MPU would have the potential to be located near water/wastewater utilities. Grading activities during these subsequent projects, though rather limited, would have the potential to disrupt existing utilities. Therefore, impacts would be significant (Impact UTIL-1).</p> <p>Some subsequent projects identified by the MPU would have the potential to result in expanded storm water drainage facilities. These impacts would be significant (Impact UTIL-2).</p>	<p><b>MM-UTIL-1:</b> Prior to approval of subsequent projects implemented in accordance with the MPU, the City Director of the Public Utilities Department shall determine, based on review of the project, that future projects are sited and designed to avoid conflicts with existing public utilities in accordance with the Master Plan and City of San Diego Public Utilities Department guidance identified below. Future design of projects shall be based on the recommendations of an anticipated detailed grade and alignment study that addresses potential conflicts with existing utilities and unpaved utility road realignments implemented in compliance with Council Policies 400-13 and 400-14. The realignments of utilities or unpaved utility roads implemented in compliance with Council Policies 400-13 and 400-14 could result in secondary impacts on biological or archaeological resources.</p> <p>Measures that could be incorporated into future projects to minimize potential conflicts with utilities shall include, but are not limited to, coordination regarding the location of the trails and pathways with the Park Planning Section of the Development Services Department or the Director of the Public Utilities Department and in compliance with the Sewer Design Guidelines and other utility agencies that require access to the facilities. If feasible, access to the sewer facilities shall also be coordinated to provide combined access to storm water pollution facilities in order to minimize the impact on open space and canyons by having common access. The access shall be proposed in a strategic location to facilitate Council Policies 400-13 and 400-14. If future trail alignments shall be coordinated with planned or existing unpaved utility roads then the following shall be considered:</p> <ul style="list-style-type: none"> <li>• Areas within 10 feet of sewer mains shall be kept clear of trees.</li> <li>• When feasible, locate future access in accordance with the Sewer Design Guide requirement for unpaved utility roads.</li> </ul>	<p>Less than Significant</p>

**Table ES-1  
Summary of Environmental Impacts and Mitigation Measures**

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		<ul style="list-style-type: none"> <li>• Design trails and pathways to also serve as an unpaved utility road for sewer centered over the ultimate sewer location if determined feasible at the project level.</li> <li>• Where feasible, incorporate the sewer depth, slope, and location requirements of the Sewer Design Guide (February 2013).</li> <li>• Any grade or alignment study shall include cross sections showing existing and proposed utilities and unpaved utility roads.</li> </ul> <p>Implementation of the mitigation framework outlined in <b>MM-HYD/WQ-1 and MM-HYD/WQ-2</b> above would reduce Impact UTIL-2 to below a level of significance because it would ensure that future projects implemented in accordance with the Plans would adhere to the regulatory requirements contained in the City's Storm Water Runoff and Drainage Regulations of the LDC and other applicable requirements.</p>	



# Chapter 1

## Introduction

### 1.1 Project Scope

This Program Environmental Impact Report (PEIR) analyzes the potential environmental impacts of the adoption and implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) prepared for Mission Trails Regional Park (Park). The MPU and NRMP (collectively, the Plans) have been developed as an integrated set of management guidelines for the Park, with the MPU focusing on public access and recreation and the NRMP focusing on the natural resources.

The Park provides visitors a way to explore the cultural, historical, and natural outdoor recreational aspects of San Diego. It is operated and maintained by the City of San Diego (City) in close partnership with the Mission Trails Regional Park Foundation (Foundation). The existing 5,830-acre Park is split into four areas: Lake Murray, Cowles Mountain, Mission Gorge, and Fortuna Mountain. The proposed MPU would add two expansion areas to the Park—East Elliott and West Sycamore—that would bring the Park’s total area to approximately 9,780 acres. All acreage needed for the West Sycamore expansion area has been transferred to the City; however, future planning and land acquisitions for the East Elliot area would be required in order to fully implement this area into the Park. All of these areas represent the study area for this PEIR.

This PEIR analyzes the broad environmental effects that are reasonably foreseeable if the Plans are implemented, while acknowledging that additional site-specific environmental review would be required for subsequent projects. Such projects recommended by the MPU include (but are not limited to) trail improvements, trailheads, picnic and shade areas, restrooms, interpretive overlooks, and additional parking in areas of the Park. Subsequent projects identified in the MPU are solely recommendations and are conceptual. The MPU does not provide for any specific location or design for subsequent projects that may potentially be implemented. The MPU also recommends additional parking in areas of the Park.

The NRMP provides adaptive management actions in order to protect sensitive biological resources. Some of these actions—such as monitoring, weeding, or revegetation—may have the potential to in turn cause environmental impacts. However, the NRMP also details minimization measures that would be required to be followed prior to implementation. Therefore, the NRMP would generally not result in environmental impacts, but is analyzed where necessary throughout the PEIR.

This PEIR also addresses the adoption and implementation of technical amendments to the Tierrasanta, Navajo, and East Elliott Community Plans, as well as the Rancho Encantada Precise Plan. These amendments are necessary to update or correct maps and community plan language required as part of project approval. The amendments would ensure that policy recommendations in the community plans with regards to the management of the Park are consistent with updated policies in the MPU and NRMP. Collectively, the Plans and technical amendments represent the “Project” analyzed throughout this PEIR.

## **1.2 Environmental Process**

### **1.2.1 Purpose, Legal Authority, and Intended Use of PEIR**

Under the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code [PRC] Section 21000 et seq.), if a lead agency determines that there is substantial evidence in light of the whole record that a project may have a significant effect on the environment, the agency must prepare an EIR (CEQA Guidelines Section 15064(a)(1)).

The purpose of an EIR is to:

- Inform governmental decision-makers and the public about the potential significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, unavoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved a project in the manner the agency chooses if significant environmental effects are involved.

This document has been prepared in accordance with the guidelines for the preparation of EIRs issued by the City (December 2005) and the City’s 2016 Significance Determination Thresholds, and complies with all criteria, standards, and procedures of CEQA and the CEQA Guidelines (California Administrative Code 15000 et seq.).

#### **1.2.1.1 Lead Agency**

The City is the Lead Agency for the Project pursuant to Article 4 (Sections 15050 and 15051) of the CEQA Guidelines. The Lead Agency, as defined by CEQA Guidelines Section 15367, is the public agency which has the principal responsibility for carrying out or approving a project. As Lead Agency,

the City's Development Services Department Environmental Analysis Section conducted an environmental review of the Project and determined that a PEIR was required. The analysis and findings in this document reflect the independent judgment of the City.

### **1.2.1.2 Responsible and Trustee Agencies**

Implementation of the Project may require subsequent actions involving responsible and trustee agencies. Responsible agencies, as defined pursuant to CEQA Guidelines Section 15381, are public agencies that may have discretionary approval authority for a project, and include, but are not limited to, the County of San Diego, City of Santee, City of La Mesa, the United States Army Corps of Engineers (USACE), United States Fish and Wildlife Service (USFWS), California Department of Transportation (Caltrans), San Diego Air Pollution Control District (APCD), San Diego Regional Water Quality Control Board (RWQCB), and Marine Corps Air Station (MCAS) Miramar.

Trustee agencies are defined in Section 15386 of the CEQA Guidelines as state agencies that have jurisdiction by law over natural resources affected by a project that are held in trust for the people of the state of California, including the California Department of Fish and Wildlife (CDFW).

A brief description of some of the primary responsible or trustee agencies that may have an interest in the Project is provided below.

**U.S. Army Corps of Engineers:** USACE has jurisdiction over development in or affecting the navigable waters of the U.S., pursuant to two federal laws: The Rivers and Harbors Act of 1889 and the Clean Water Act, as amended. A "navigable water" is generally defined by a blue line as plotted on a United States Geological Survey (USGS) quadrangle map. Projects that include potential dredge or fill impacts to waters of the U.S. are subject to Section 404 of the Clean Water Act. Aggregate impacts to waters of the U.S. (defined as direct fill or indirect effects of fill) greater than one-half acre require a permit. All permits issued by the USACE are subject to consultation and/or review by the USFWS and the U.S. Environmental Protection Agency (EPA).

**U.S. Fish and Wildlife Service:** Acting under the Federal Endangered Species Act (FESA), the USFWS is responsible for ensuring that any action authorized, funded, or carried out by a federal agency (such as the USACE) is not likely to jeopardize the continued existence of listed species or modify their critical habitat. Accordingly, the USFWS would provide input to the USACE as part of the Section 404 process.

Within areas covered by the City of San Diego's Multiple Species Conservation Plan (MSCP) Subarea Plan, the role of the USFWS is limited with respect to species covered under the Subarea Plan. For species covered by the Subarea Plan, the USFWS has granted take authorization to the City for listed species in accordance with the requirements of the MSCP Implementing Agreement, executed between the City, the USFWS, and the CDFW in 1997. However, the City does not have "take" authority for any wetland species. In April 2010, the City relinquished coverage of seven vernal pool species under the City's ESA, Section 10 Incidental Take Permit (ITP). For future projects that are consistent with the City's MSCP, the City, therefore, has authority to grant permits for take of covered species and a separate permit is not required from the wildlife agencies. For listed species not included on the MSCP covered species list, the wildlife agencies retain permit authority. In

addition, the USFWS, along with CDFW, must approve Multi-Habitat Planning Area (MHPA) boundary line adjustments.

**California Department of Fish and Wildlife:** CDFW has the authority to reach an agreement with an agency or private party proposing to alter the bed, banks, or floor of any watercourse/stream, pursuant to Section 1600 et seq. of the state Fish and Game Code. The CDFW generally evaluates information gathered during preparation of the environmental documentation, and attempts to satisfy their permit concerns in these documents. Where state listed threatened or endangered species not covered by the City's MSCP occur on a project site, the CDFW would be responsible for the issuance of a Memorandum of Understanding (MOU) to ensure the conservation, enhancement, protection, and restoration of state listed threatened or endangered species and their habitats. Along with the USFWS, the CDFW must approve any MHPA boundary line adjustments.

**San Diego Regional Water Quality Control Board:** The San Diego RWQCB regulates water quality through the Section 401 certification process and oversees the National Pollutant Discharge Elimination System (NPDES) Permit No. CA 0108758, which consists of wastewater discharge requirements.

**California Department of Transportation:** Caltrans is the state agency responsible for highway, bridge, and rail transportation planning, construction, and maintenance. The Park is adjacent to Interstate 8 (I-8) and State Route 52 (SR-52). Caltrans approval would be required for any encroachments into Caltrans right-of-way by future projects.

**Marine Corps Air Station Miramar:** MCAS Miramar is located in between the East Elliott and West Sycamore areas. No trails or recreational facilities would be sited within lands controlled by MCAS Miramar. As instances of illegal trespass and encroachment have occurred, the City would continue to coordinate with MCAS Miramar to proactively deter trespassers.

**County of San Diego:** The County of San Diego Department of Parks and Recreation (DPR) jointly owns 1,400 acres and solely owns 122.4 acres of the Cowles Mountain area. Coordination between the City and County for the jointly owned area is detailed in Joint Powers Agreement O-18268. The County of San Diego Department of Environmental Health (DEH) regulates various public health and hazard issues in San Diego County, including on-site wastewater systems, recreational water, aboveground and underground storage tanks and cleanup, and medical and hazardous materials and waste. Coordination with the DEH would be required for projects located within recorded hazardous materials sites.

**City of Santee:** There are several existing secondary access points available from the City of Santee. Within the Cowles Mountain area, secondary access points within the City of Santee are located at Mesa Road, Rancho Fanita Drive, and Big Rock Road. Within the East Elliott area, West Hills Park provides a secondary access point. MPU recommendations include various entry improvements, a parking and a linear bike skills area within the disturbed shoulder along Mesa Road near Big Rock Park, and family picnicking facilities near the Big Rock Park trailhead.

## 1.2.2 Program-Level Impact Analysis

This PEIR contains a program-level analysis of the project, pursuant to Section 15168 of the CEQA Guidelines, which states:

A PEIR may be prepared on a series of actions that can be characterized as one large project and are related either geographically; as logical parts in the chain of contemplated actions; in connection with the issuance of rules, regulations, plans, or other general criteria to govern the continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The Plans are documents designed to provide recreational opportunities and manage natural resources, respectively. These Plans would not directly result in a physical change in the environment. However, if the Plans are approved, future projects would be subsequently implemented that were envisioned by the Plans. Therefore, it is reasonably foreseeable that the recommendations provided in the Plans would indirectly lead to physical changes in the environment. Consequently, this PEIR addresses potential impacts on the environment at the program level.

Potential future projects identified in the Plans are solely recommendations. The Plans do not provide for any specific location, design, or extent of grading for subsequent projects that may potentially be implemented. The MPU also provides recommendations for the general location of proposed or improved parking areas and proposed trails. Any details regarding location, design, or extent of grading associated with these facilities would be subject to review and approval by the City when a future project is proposed in accordance with the Plans. As a result, the PEIR does not evaluate project-level impacts associated with future implementation of any of the specific planning recommendations or public or private development projects proposed within the Park. Any subsequent projects proposed within the Park would be reviewed for consistency with the Plans and PEIR; project-level impacts of these subsequent activities would be subject to separate environmental review under CEQA.

A program-level analysis generally analyzes the broad environmental effects that are reasonably foreseeable if the Plans are implemented, while acknowledging that additional site-specific environmental review and document preparation will be required for subsequent projects. Where a project-level analysis has access to all the necessary construction information and is able to analyze the specific details of environmental effects of proposed elements, a program-level analysis often lacks details on specific development projects and may only be able to make general assumptions based on existing or proposed development regulations.

## 1.2.3 PEIR Review Process

The PEIR review process occurs in two basic stages. The first stage is the Draft PEIR, which offers the public the opportunity to comment on the document, while the second stage is the Final PEIR.

The Draft PEIR is distributed for review to the public and interested and affected agencies for a review period for the purpose of providing comments “on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated” (CEQA Guidelines Section 15204.). In accordance with CEQA Guidelines Sections 15085 and 15087 (a) (1), upon completion of the Draft PEIR a Notice of Completion is filed with the state Office of Planning and Research and Notice of Availability (NOA) of the Draft PEIR is issued in a newspaper of general circulation in the area.

Following the end of the public review period, the City will provide written responses to comments received on the Draft PEIR per CEQA Guidelines Section 15088 and will consider all comments in making its decision. Detailed responses to the comments received during public review, a Mitigation Monitoring and Reporting Program (MMRP), Findings of Fact, and a Statement of Overriding Considerations for impacts identified in the Draft PEIR as significant and unavoidable will be prepared and compiled as part of the PEIR finalization process. The Final PEIR will be made available for public review at least 14 days prior to the first public hearing in order to provide the public and those that commented on the Draft PEIR the opportunity to review the written responses to their comment letters. The culmination of this process is a public hearing where the City Council will determine whether to certify the Final PEIR, and adopt the MMRP, Findings of Fact, and Statement of Overriding Consideration as being complete and in accordance with CEQA.

## **1.3 PEIR Scope, Content, and Organization**

The scope of analysis for this PEIR was determined by the City as a result of the public outreach process that began in 2011 and responses to the Notice of Preparation (NOP) dated April 2, 2014, which included a Scoping Letter that addressed the CEQA Initial Study Thresholds. The NOP, associated responses, and comments made during the scoping meeting on April 17, 2014 are included as Appendix A of this PEIR. Through these scoping activities, the project was determined to have the potential to result in the following significant environmental impacts:

- Land Use
- Visual Effects and Neighborhood Character
- Air Quality
- Greenhouse Gas Emissions
- Biological Resources
- Historical Resources
- Human Health, Public Safety, and Hazardous Materials
- Hydrology and Water Quality
- Geology and Soils
- Paleontological Resources
- Transportation/Circulation
- Public Services
- Public Utilities

The intent of the analysis section of this PEIR is to determine whether implementation of the Project would have a significant effect on the environment through analysis of the issues identified during the scoping process. A significant effect on the environment is defined as a “substantial, or

potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382).

The chapter organization and content of this PEIR, including a brief overview of the various sections of this PEIR, is provided below:

- **Executive Summary.** Provides a summary of the PEIR, a brief description of the project, identification of areas of controversy, and inclusion of a summary table identifying significant impacts, proposed mitigation measures, and impact rating after mitigation. A summary of the analyzed alternatives and comparison of the potential impacts of the alternatives with those of the Project is also provided.
- **Chapter 1, Introduction.** Contains an overview of the legal authority, purpose, and intended uses of the PEIR, as well as its scope and content. It also provides a discussion of the CEQA environmental review process, including public involvement.
- **Chapter 2, Environmental Setting.** Provides a description of the regional context, location, and existing physical characteristics and land use at the Park. Available public infrastructure and services, as well as relationship to relevant plans, is also provided in this section.
- **Chapter 3, Project Description.** Provides a detailed discussion of the Plans, including background, objectives, planning recommendations, and implementation mechanisms.
- **Chapter 4, History of Project Changes.** Describes the physical changes that have been made to the Plans in response to environmental concerns raised during review of the project.
- **Chapter 5, Environmental Impact Analysis.** Comprises the main body of the PEIR, analyzing impacts for each issue area. Under each issue area identified by the City during project scoping (previously detailed), the PEIR includes a detailed description of existing conditions, thresholds for determining significant issues, analysis of impacts associated with the project, and feasible mitigation framework. The analysis of impacts is based on the threshold issue statements identified in the NOP Scoping Letter (see Appendix A). If the analysis demonstrates that a potential effect would have a significant adverse impact on the physical conditions based on project implementation, a mitigation framework is provided to minimize or avoid the significant impact(s). Where a feasible mitigation framework is not available or proposed, the significant impact is identified as significant and unavoidable.
- **Chapter 6, Significant Unavoidable Environmental Effects / Significant Irreversible Environmental Changes.** Discusses any significant unavoidable impacts of the Project, which would remain significant and unavoidable even after project mitigation. This section also describes the potentially significant irreversible changes that may be expected with development under the Plans and addresses the use of nonrenewable resources during its construction and operational life.

- **Chapter 7, Growth Inducement.** Evaluates the potential influence the project may have on economic or population growth within the study area as well as the region, either directly or indirectly.
- **Chapter 8, Cumulative Impacts.** Identifies the impact of the Project in combination with other planned future development in the region.
- **Chapter 9, Effects Found Not to Be Significant.** Identifies all of the issues determined in the scoping process to be not significant, and briefly summarizes the basis for these determinations.
- **Chapter 10, Alternatives.** Includes a discussion of alternatives which could avoid or reduce potentially significant environmental impacts associated with implementation of the Project. Alternatives addressed in the EIR include a No Project Alternative and a Reduced Project Alternative. Pursuant to the CEQA Guidelines, the adopted 1985 Mission Trails Regional Park Master Plan represents the No Project Alternative. These alternatives provide the range of alternatives, which will enable the decision-makers to select any one of the alternatives or a hybrid of them.
- **Chapter 11, References Cited.** Lists all of the reference materials cited in the PEIR.
- **Chapter 12, Individuals and Agencies Consulted.** Identifies all of the individuals and agencies contacted during preparation of the PEIR.
- **Chapter 13, Certification Page.** Identifies all of the agencies, organizations, and individuals responsible for the preparation of the PEIR.

## 1.4 Availability of Draft PEIR

As previously detailed in the NOP, the draft PEIR will be circulated for a 45-day public review period. The NOA will be sent to all interested parties, including agencies, organizations, and individuals who commented on the NOP; as well as those who were in attendance and signed in at the NOP scoping meeting, which was held at the Park's Visitor Center on April 17, 2014.

A hard copy of the Draft PEIR will be available at the following locations for review:

- Mission Trails Visitor Center, 1 Father Junipero Serra Trail, San Diego, CA 92119
- Central Library, 330 Park Boulevard, San Diego, CA 92101
- San Carlos Library, 7265 Jackson Drive, San Diego, CA 92119
- Allied Gardens/Benjamin Library, 5188 Zion Avenue, San Diego, CA 92120
- Tierrasanta Library, 4985 La Cuenta Drive, San Diego, CA 92124

An electronic version of the PEIR will be available online at the City Clerk's website address: <http://www.sandiego.gov/planning/>.

## **1.5 Required Discretionary Actions**

The Project will require City Council approval of the following discretionary actions:

- Adoption of the MPU and associated NRMP.
- Adoption of amendments to the Tierrasanta, Navajo, and East Elliott Community Plans, and the Rancho Encantada Precise Plan.

Additionally, the Project will require County of San Diego Board of Supervisors approval for adoption of the MPU as it relates to the County's jurisdiction in accordance with Joint Powers Agreement O-18268.



## Chapter 2

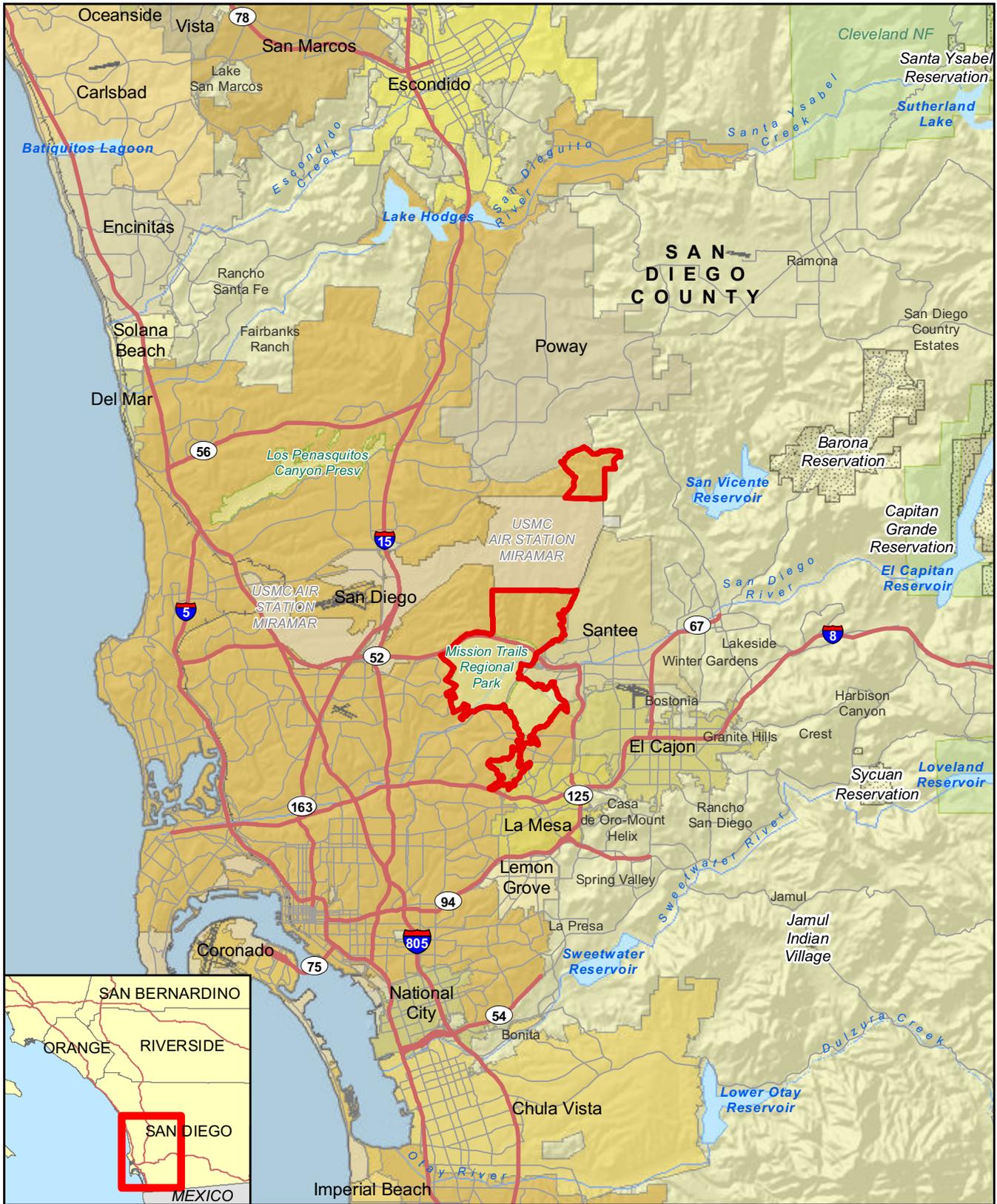
# Environmental Setting

### 2.1 Location

The Mission Trails Regional Park (Park) is located near the center of metropolitan San Diego, 8 miles northeast of Downtown San Diego, midway between the Pacific Ocean and the Cleveland National Forest (Figures 2-1 and 2-2). The Park is almost entirely within the City of San Diego (City); however, it is within or near several jurisdictions, including the Cities of La Mesa, Santee, and El Cajon to the east; the City of Poway to the north, and unincorporated San Diego County to the northeast. With the addition of the proposed expansion areas, the Park would be bisected by Marine Corps Air Station (MCAS) Miramar.

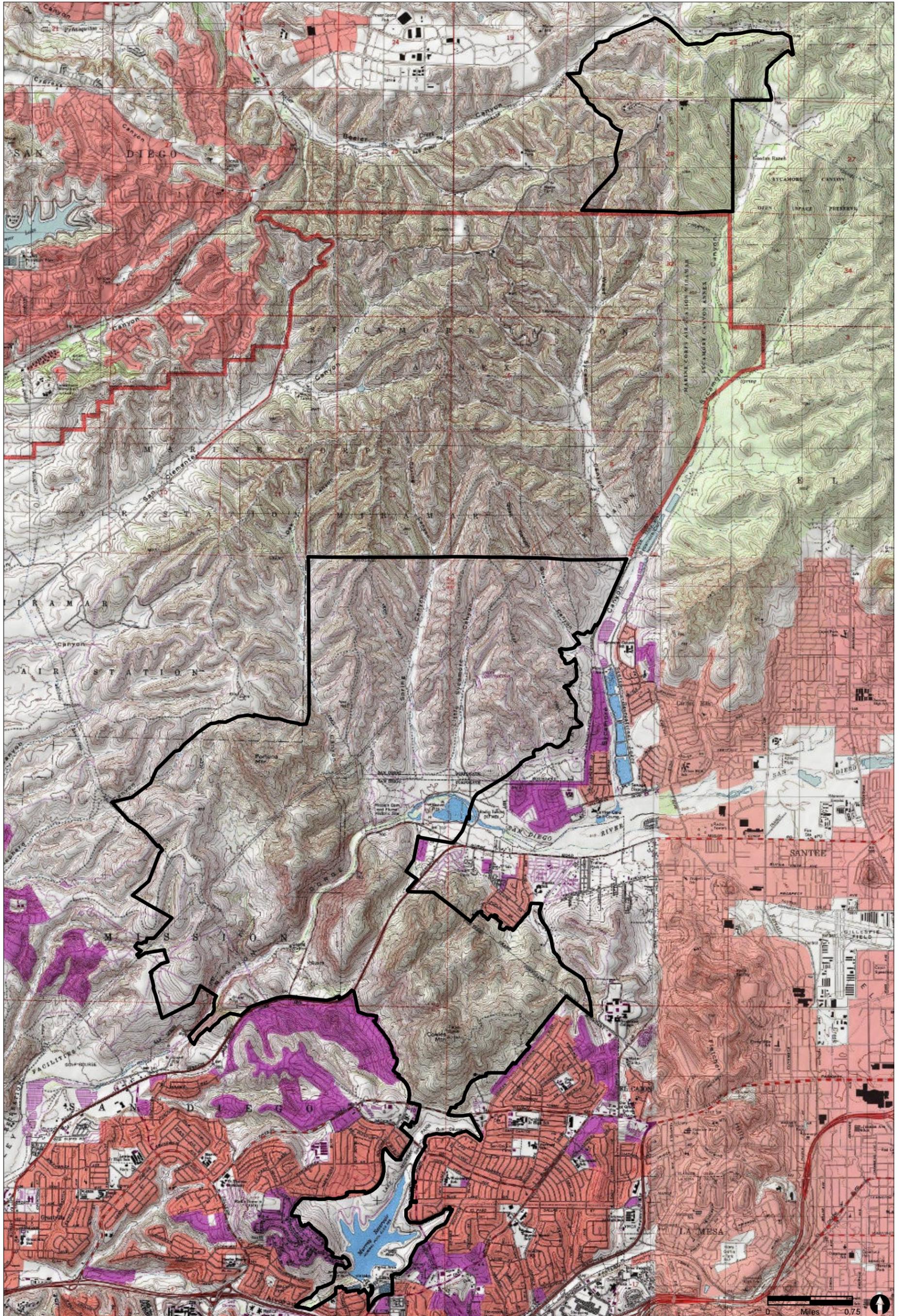
The study area is divided into six areas for planning purposes (Figure 2-3). Just north of Interstate 8, at the Park's southern end is Lake Murray, a 200-acre reservoir with active recreational uses. Immediately north lies Cowles Mountain, a regional landmark due to its visual prominence. To the northeast, the San Diego River cuts through Mission Gorge at right angles to the dominant landform, flowing west to Mission Bay. Further north is Fortuna Mountain, a prominent ridgeline flanked by a large valley and plateau to its west, and a complex of north-south canyons to its east.

The East Elliott area (see Figure 2-3), lies north of SR-52, and is also composed of canyon complexes, along with the Sycamore Landfill. West Sycamore is undeveloped with sloping terrain and is adjacent to the County's Goodan Ranch and Sycamore Canyon Preserve. It is separated from the other areas by MCAS Miramar.



 Project Location

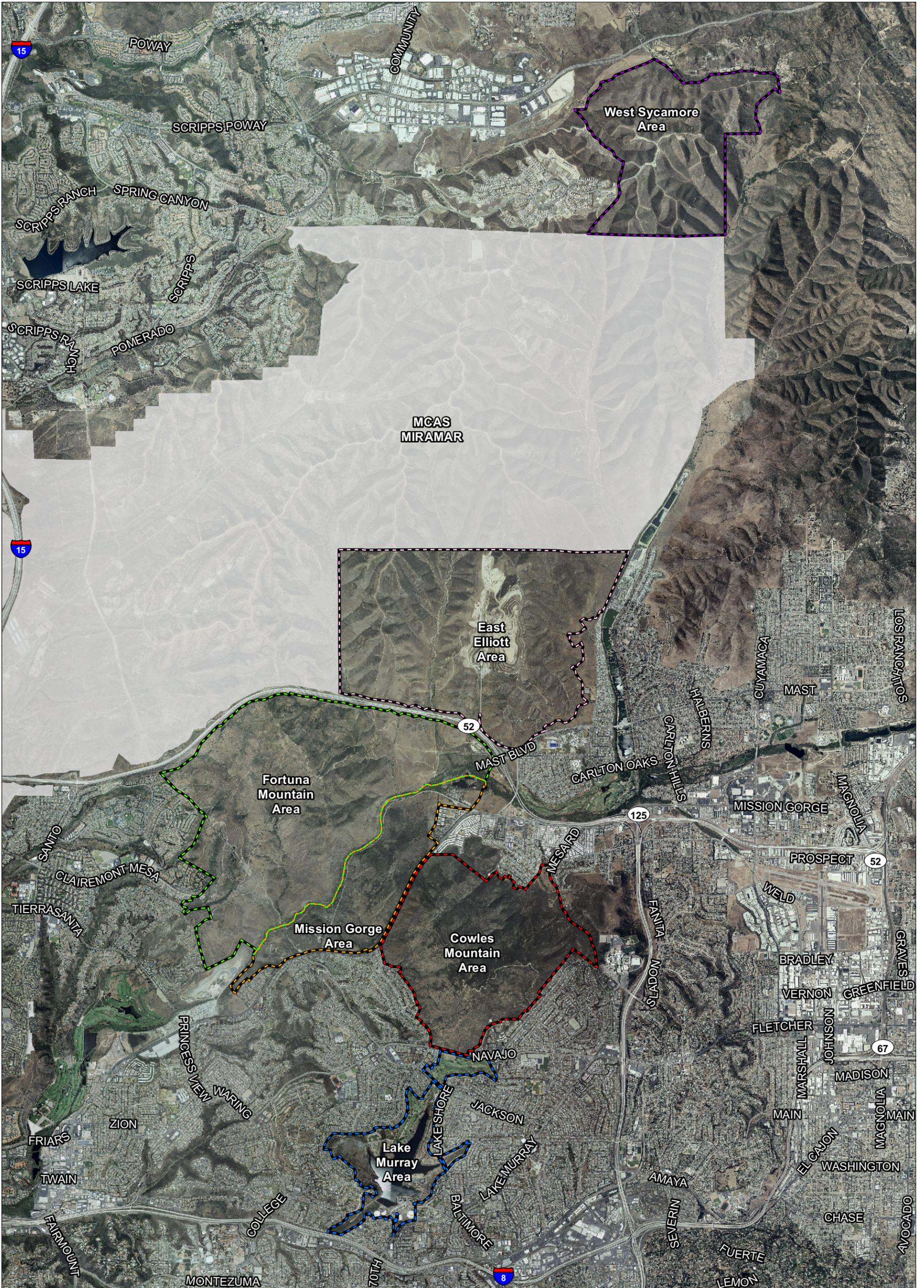
FIGURE 2-1  
Regional Location



 Project Boundary

FIGURE 2-2

Project Location on USGS Map



- |                    |                       |
|--------------------|-----------------------|
| Project Boundary   | Cowles Mountain Area  |
| East Elliott Area  | Fortuna Mountain Area |
| West Sycamore Area | Lake Murray Area      |
| Mission Gorge Area |                       |



FIGURE 2-3  
Project Location on Aerial Photograph

## **2.2 Existing Physical Characteristics**

The environmental setting of the study area is briefly described below. Chapter 5 of this Program Environmental Impact Report (PEIR) provides additional, more specific information relating to the Park's current environmental and regulatory setting pertaining to air quality, biological resources, historical resources, land use, transportation, visual character, geology/soils, hazards, hydrology/water quality, paleontological resources, public services and facilities, and public utilities.

### **2.2.1 Land Use**

An overview of each area's size, ownership, park facilities, other uses (i.e., utilities), and recreational uses is provided below. For additional details regarding the land use history of the Park including the City and County of San Diego Joint Powers Agreement and prior County Board of Supervisors actions, refer to Section 2.0 of the MPU.

#### **2.2.1.1 Lake Murray**

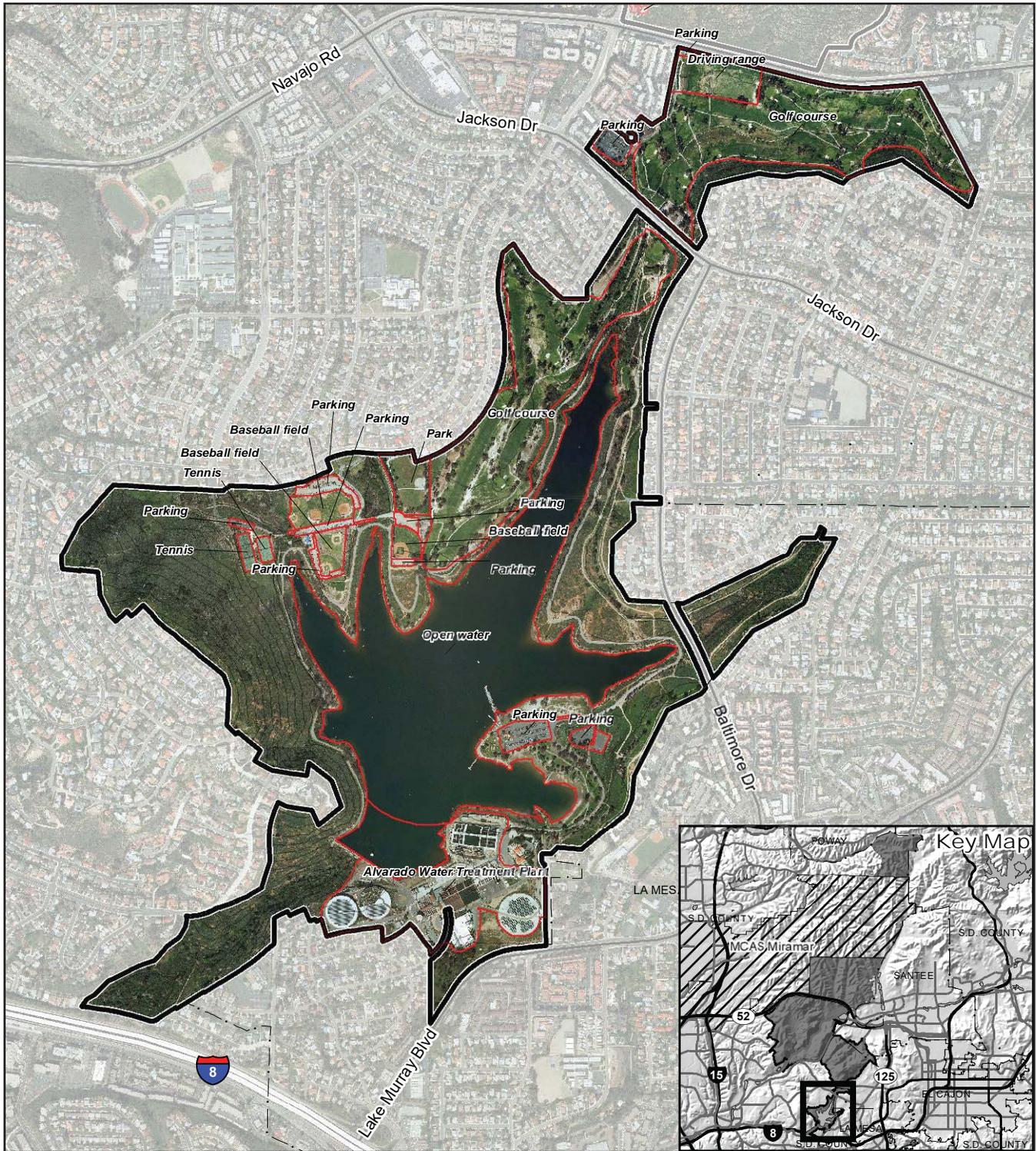
At 628 acres, Lake Murray is the smallest area in the Park. It is completely within the jurisdiction of the City, within the Navajo Community Planning Area (CPA). The City owns about 73 percent of the land in fee. About 109 acres within the lake are privately held lands with flooding rights granted to the City. Park facilities include Lake Murray reservoir, Mission Trails Golf Course, Lake Murray Community Park, and open space lands immediately surrounding the reservoir (Figure 2-4). Other uses include the City's Alvarado Water Treatment Plant.

At the south end of the Park, Lake Murray provides a recreational day use area centered on Alvarado Point. The lake provides for recreational activities such as boating, fishing, and picnicking. Lake Murray Community Park includes major community-oriented ball fields, multi-use fields, concessions stand, a playground, and tennis courts. This area includes 7.99 miles of trails; 0.26 mile of this total is unauthorized. The paved maintenance road along the edge of the lake is heavily used by walkers, runners, cyclists, and in-line skaters. The unpaved utility roads that parallel the concrete urban runoff diversion channel surrounding the lake are also used by pedestrians and mountain bikers. Numerous unauthorized dirt trails split off the paved road to provide shoreline access.

#### **2.2.1.2 Cowles Mountain**

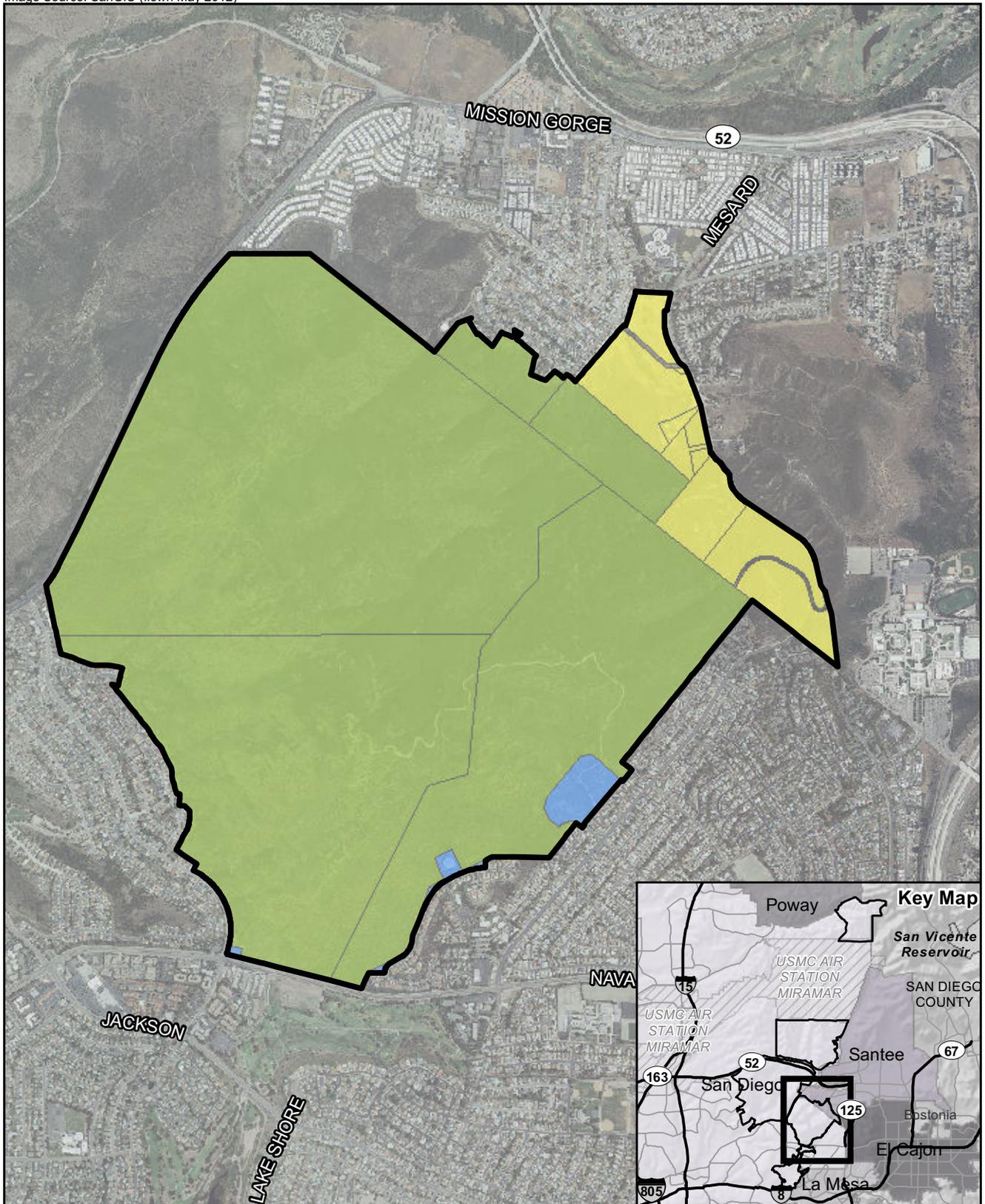
The 1,540-acre Cowles Mountain area is almost entirely within the municipal jurisdiction of the City of San Diego (1,355 acres), with 189 acres in the City of Santee municipal jurisdiction. As shown in Figure 2-5a, approximately 20 acres of land is in City ownership and 122 acres is in County ownership. The remaining 1,400 acres is jointly owned by both agencies.

Land within the City of San Diego is within the Navajo CPA, while land within the City of Santee is owned by the County of San Diego. Uses within this area include the antennae facilities at the top of Cowles Mountain, the associated service road, and the San Carlos Reservoir. Park facilities include the main staging area and trailhead at Golfcrest Drive and Navajo Road, and secondary trailheads at Big Rock/Mesa Road and Barker Way (Figure 2-5b).



-  Municipal Boundaries
-  Park Boundary
-  Facilities

**FIGURE 2-4**  
Park Facilities and Other Uses within Lake Murray Area



**Cowles Mountain Area**

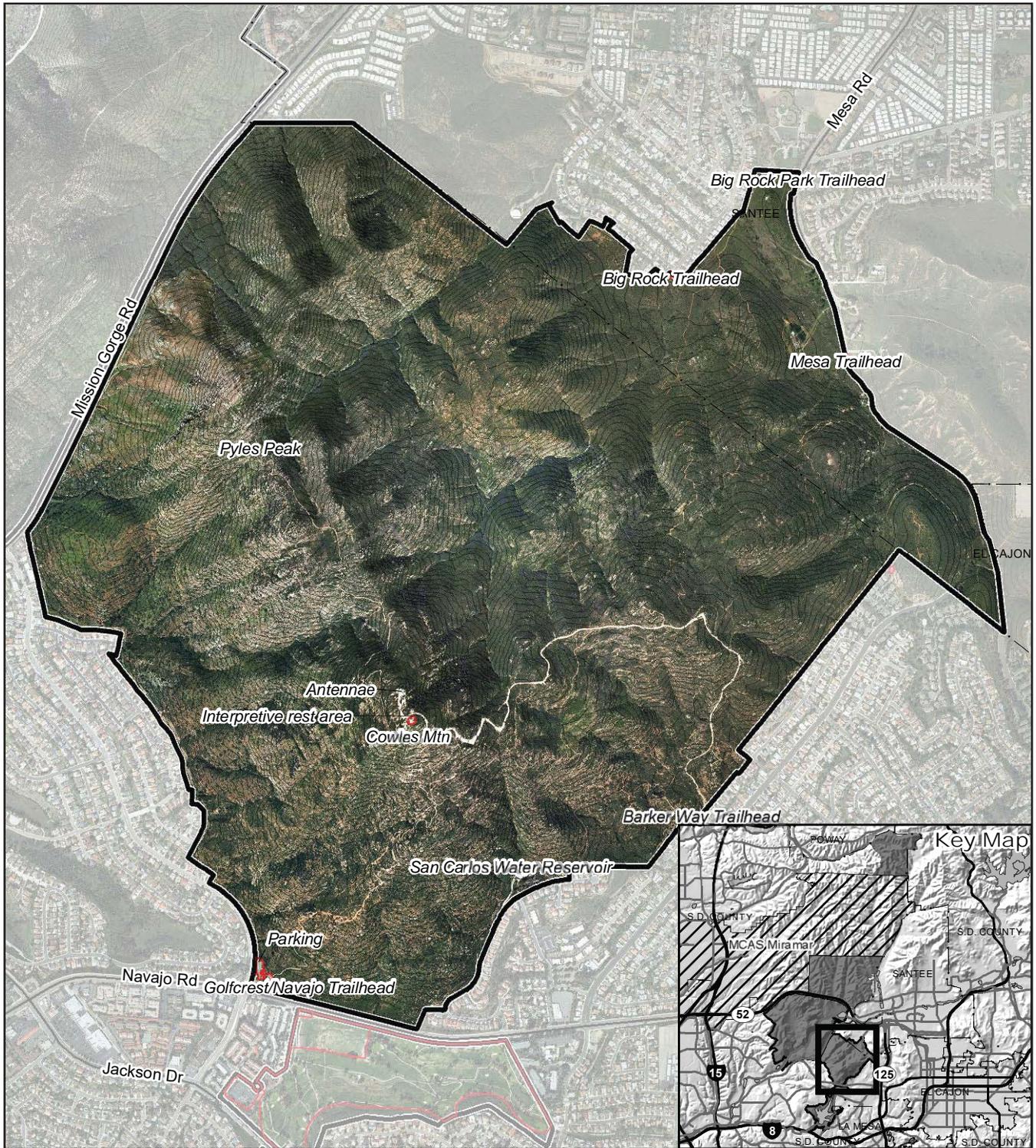
**Land Ownership**

- City of San Diego
- County of San Diego
- City/County Joint Ownership



FIGURE 2-5a

Land Ownership within Cowles Mountain Area



-  Municipal Boundaries
-  Park Boundary
-  Facilities

**FIGURE 2-5b**  
Park Facilities and Other Uses within Cowles Mountain Area

This area is bounded by residential development on the east and west, and major transportation routes on the north and south. Navajo Road is the dividing boundary between the Lake Murray and Cowles Mountain areas, and Mission Gorge Road is the dividing boundary between this area and the Mission Gorge area.

Cowles Mountain's surface is characterized by rugged, relatively barren and exposed slopes, yet its canyons are secluded and relatively rich in plants and rock outcroppings. Use of the mountain is limited to recreational uses, such as hiking, mountain biking, photography, nature study, and viewing. Because of its panoramic views, it is the most frequented trail destination in the park. There are 14.36 miles of trails in this area; 1.02 miles of this total are unauthorized.

### **2.2.1.3 Mission Gorge**

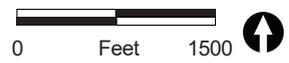
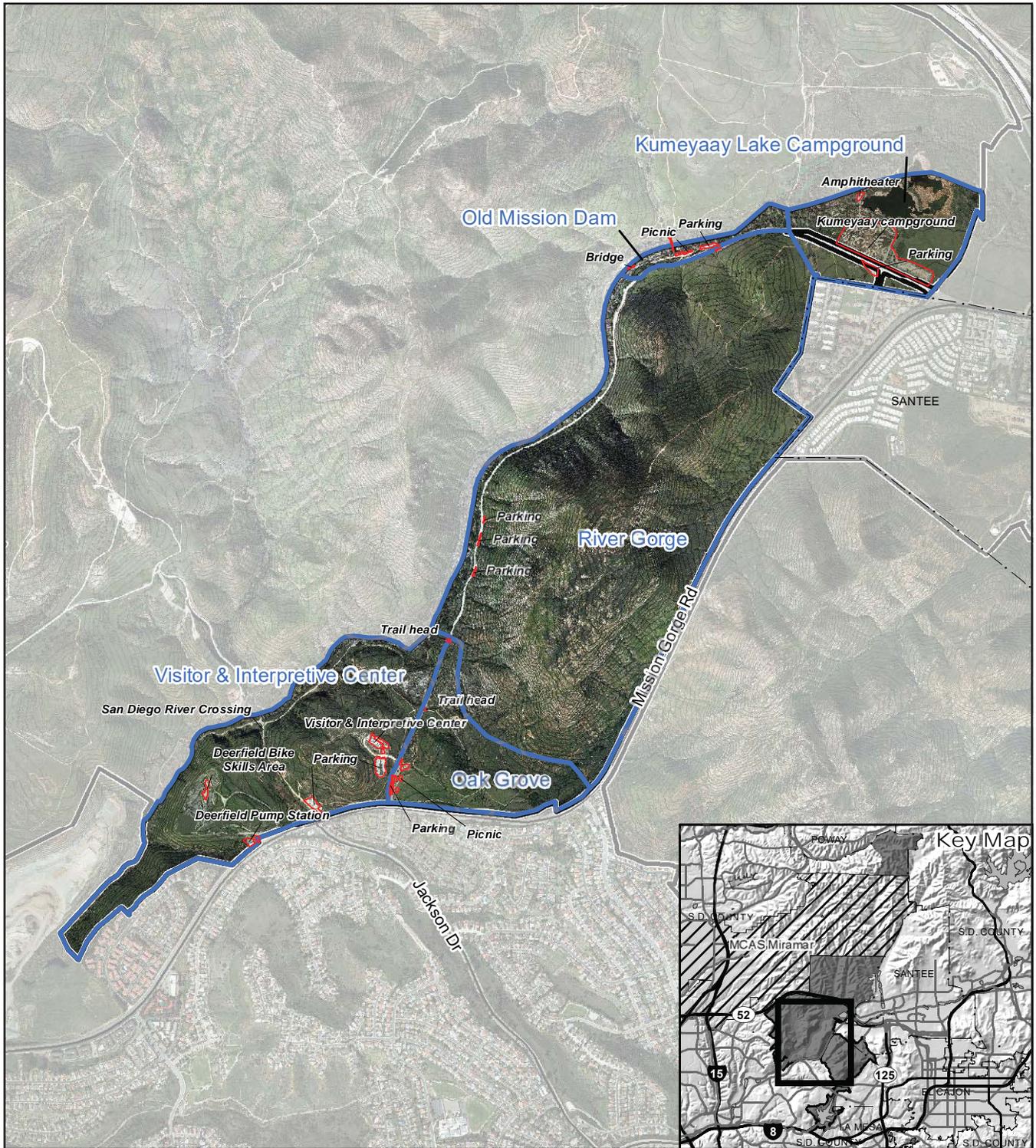
The 864-acre Mission Gorge area encompasses over 2 miles of the San Diego River and includes the land between Mission Gorge Road and the river. The area is both entirely owned and within the jurisdiction of the City of San Diego; mainly within the Navajo CPA, with a small area in the northeast within the Tierrasanta CPA. Park facilities include the Visitor and Interpretive Center, Old Mission Dam, Kumeyaay Lake Campground, and Deerfield Quarry Bike Skills Site (Figure 2-6). The area is primarily bordered by the adjacent areas of Cowles and Fortuna Mountains, and also by residential uses on the northeast and southwest sides.

Regionally oriented park facilities characterize this area and include family and group picnic areas, park concessions, and an outdoor amphitheater. The northern end of this area balances day and overnight recreation with the need to protect cultural resource sites and wildlife habitats and corridors. Uses are carefully interfaced to maintain integrity to the area around Old Mission Dam while providing for interpretive and recreational access. The south end contains the Park's Visitor and Interpretive Center. West of the Visitor and Interpretive Center is the Park's only authorized bicycle skills area.

Other informal activities in this area include hiking, nature study, and mountain biking. The Mission Gorge area also provides the only currently authorized rock climbing area in the Park on the western face of Kwaay Paay. Father Junipero Trail, the San Diego River Trail, and the Climber's Loop Trail comprise a portion of the total 9.93 miles of trails in this area.

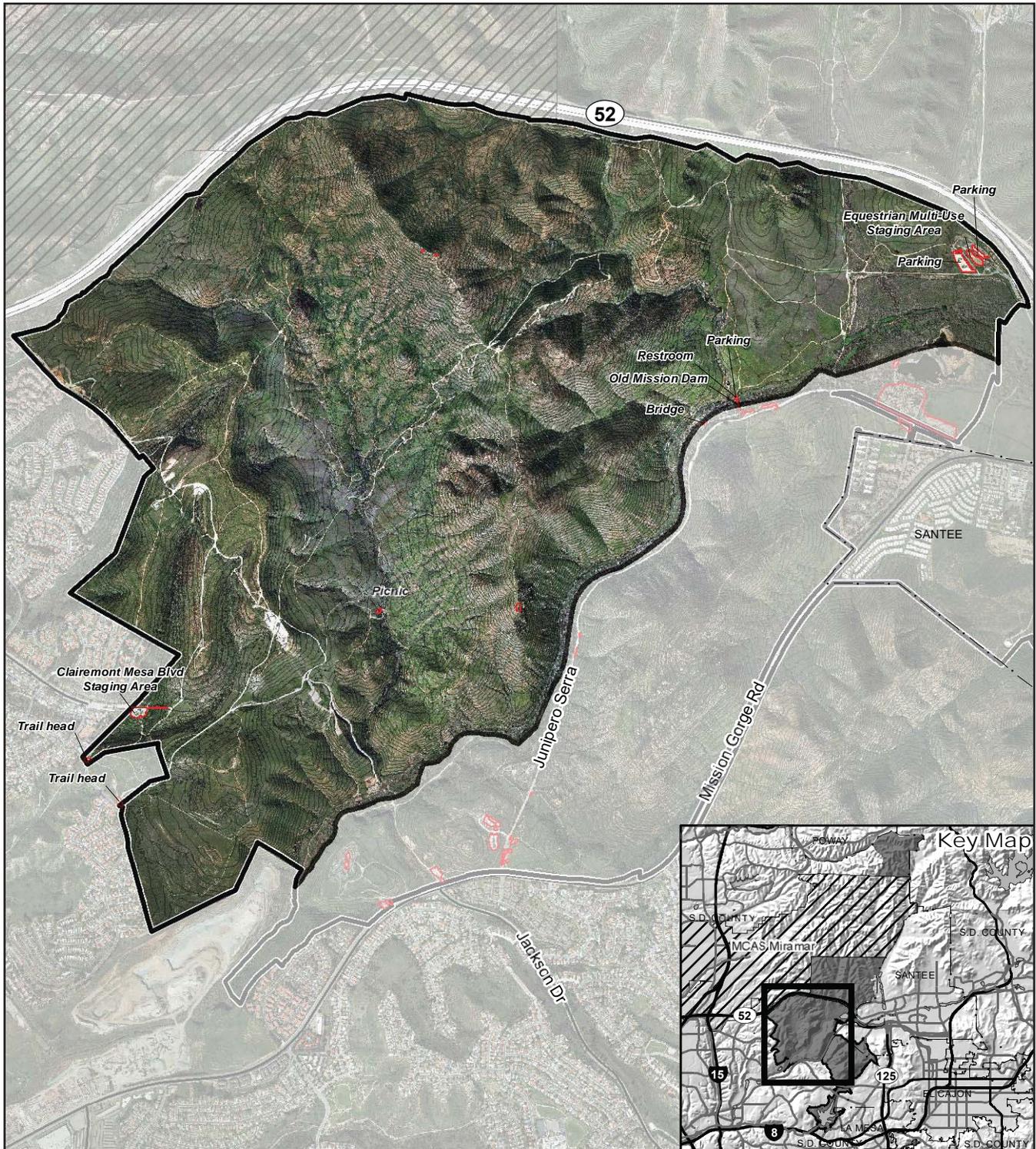
### **2.2.1.4 Fortuna Mountain**

At nearly 2,800 acres, the Fortuna Mountain area is the largest in the Park. It is completely within the jurisdiction of the City of San Diego and mainly within the Tierrasanta CPA, with only a small area in the southeast within the Navajo CPA. The City of San Diego owns 2,604 acres, the San Diego County Water Authority (SDCWA) owns approximately 22 acres, and San Diego State University (SDSU) owns approximately 174 acres. Uses within this area include SDCWA facilities and pipelines and multiple San Diego Gas & Electric (SDG&E) utility corridors (Figure 2-7). Park facilities also include the East Fortuna staging area, north of Kumeyaay Lake and east of Little Sycamore Creek. This staging area is being developed in phases and will eventually contain equestrian parking, corrals, a comfort station, park administration building, and other facilities.



-  Municipal Boundaries
-  Park Boundary
-  Facilities
-  Mission Gorge Subareas

**FIGURE 2-6**  
Park Facilities and Other Uses within Mission Gorge Area



-  Municipal Boundaries
-  Park Boundary
-  Facilities
-  MCAS

**FIGURE 2-7**  
Park Facilities and Other Uses within Fortuna Mountain Area

The Fortuna Mountain area is bounded by residential uses within Tierrasanta on the west, the six-lane SR-52 on the north, and the Mission Gorge area on the south and east (with the San Diego River acting as the dividing boundary). The San Diego River, Suycott Wash, and steep slopes of North and South Fortuna peaks dominate the visual landscape.

The Fortuna Mountain area contains 29.44 miles of hiking and mountain biking trails, representing the majority of the Park's overall trail system, with 0.15 mile being unauthorized. Nearly half of the trails utilize the access roads associated with SDCWA's aqueducts or SDG&E's transmission facilities. The Fortuna Mountain area has historically been the only area of the Park open to equestrian use on designated trails.

### **2.2.1.5 East Elliott**

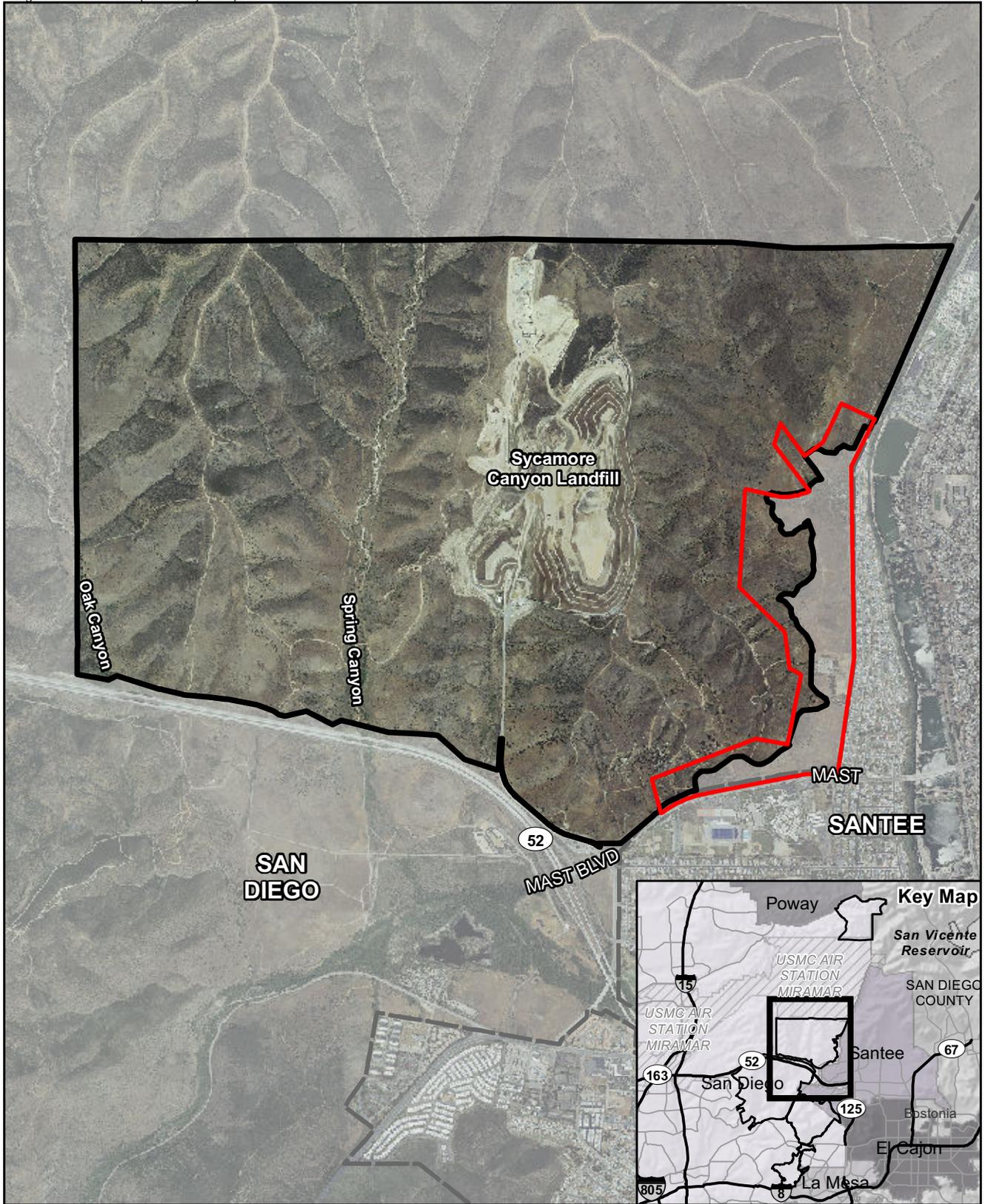
At approximately 2,590 acres, the East Elliott area is the second largest in the Park. It is completely within the jurisdiction of the City of San Diego and part of the East Elliott CPA. The City of San Diego has acquired approximately 730 acres (28 percent) of the area. Approximately 126 acres (5 percent) is owned by other public agencies. The remaining area is privately owned by Sycamore Landfill, Pardee Homes, and other individuals, who have development rights within land identified within the Multi-Habitat Planning Area (MHPA) per the Community Plan. There are no Park facilities within this area. Land uses within this area include the Sycamore Landfill and multiple SDG&E utility corridors. The vast majority is undeveloped land with moderate to steep slopes (Figure 2-8). The Castlerock project is an approved residential development at the eastern edge of this area that is under construction and has been annexed into the City of Santee. The Castlerock project includes MHPA lands to be deeded to the City of San Diego as part of the Park.

The East Elliott area is bounded by residential uses on the east within the City of Santee, the six-lane SR-52 on the south, and MCAS Miramar to the north and west. SR-52 acts as the boundary between the Fortuna Mountain and East Elliott areas of the Park.

Recreational use within the area has been occurring for a number of years on both unpaved utility roads and unauthorized user-created trails (22.25 miles). The trails cross both publicly and privately owned parcels, are not formally planned or designed, and have no legal access easements. Public trespass onto MCAS Miramar from this area currently occurs on a regular basis as users follow unpaved utility roads or unauthorized user-created trails that cross training-related safety zones, operational areas, and potential unexploded ordnance (UXO).

### **2.2.1.6 West Sycamore**

This approximately 1,360-acre area is both completely within the jurisdiction and ownership of the City of San Diego, within the Rancho Encantada Precise Plan Area. The West Sycamore area was acquired through an Extraordinary Benefits Agreement between the City of San Diego and Sycamore Estates, which was approved by the City Council in 2001. The agreement obligated the developer to convey land to the City for the purposes of habitat conservation. A parking area and picnic area are the only park facilities within this area. Uses within this area include multiple SDG&E utility corridors, with a vast majority of the West Sycamore area being preserved within the City's MHPA, except for previously developed areas along the main ridgeline (Figure 2-9).

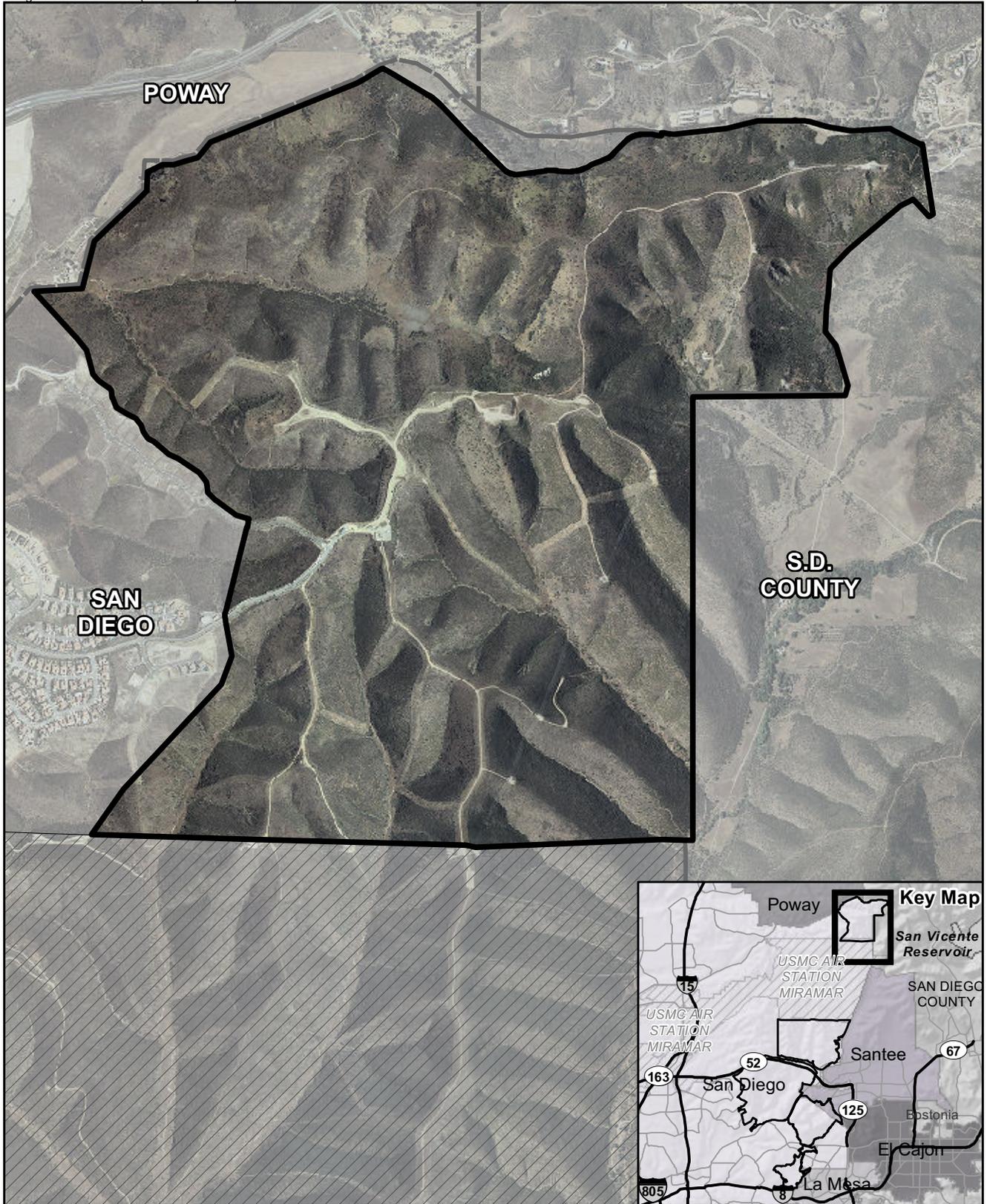


-  Park Boundary
-  Municipal Boundaries
-  Proposed Castlerock Development

0 Feet 2,000 

FIGURE 2-8

Other Uses within East Elliott Area



-  Park Boundary
-  Municipal Boundaries
-  Landmarks (Regional)



**FIGURE 2-9**  
Other Uses within West Sycamore Area

The West Sycamore area is bounded by residential uses on the west, the two-lane Sycamore Canyon Road on the north, Goodan Ranch Sycamore Canyon Preserve to the east, and MCAS Miramar to the south. The area is separated from the rest of the Park by about 3.5 miles spanning the breadth of MCAS Miramar. Except for the portion occupied by SDG&E transmission lines and associated access roads, most of the area is in a natural state. The area is characterized by a dominant ridgeline that separates the Peñasquitos Creek and San Diego River watersheds, and incised canyons with moderate to steep slopes.

There are approximately 6 miles of recreational trails within the West Sycamore area. These trails primarily utilize narrowed utility access roads. Equestrian use is allowed on designated trails with access from the future facilities at the staging area at the end of Stonebridge Parkway, or from within the adjacent Goodan Ranch Sycamore Canyon Preserve via trail connections. Public trespass onto MCAS Miramar currently occurs on a regular basis from this area as users follow utility access roads or unauthorized user-created trails that cross training safety zones.

## 2.2.2 Park Entries and Circulation

There are a minimal number of Park entries and internal roads within the Park. Automobile circulation is limited to existing roads on the perimeter. Visitors utilize the extensive system of hiking, biking, and equestrian trails, many of which are collocated with utility access roads (Figure 2-10).

There are several regionally significant entries to the Park:

**Lake Murray area:** Kiowa Drive, Murray Park Drive

**Cowles Mountain area:** Golfcrest Drive, Big Rock Park

**Mission Gorge area:** Mission Gorge Road/Father Junipero Serra Trail, Father Junipero Serra Trail/Bushy Hill Drive

**Fortuna Mountain area:** Mast Boulevard, Clairemont Mesa Boulevard

**East Elliott area:** No regional entries into the East Elliott area currently exist.

**West Sycamore area:** Stonebridge Parkway

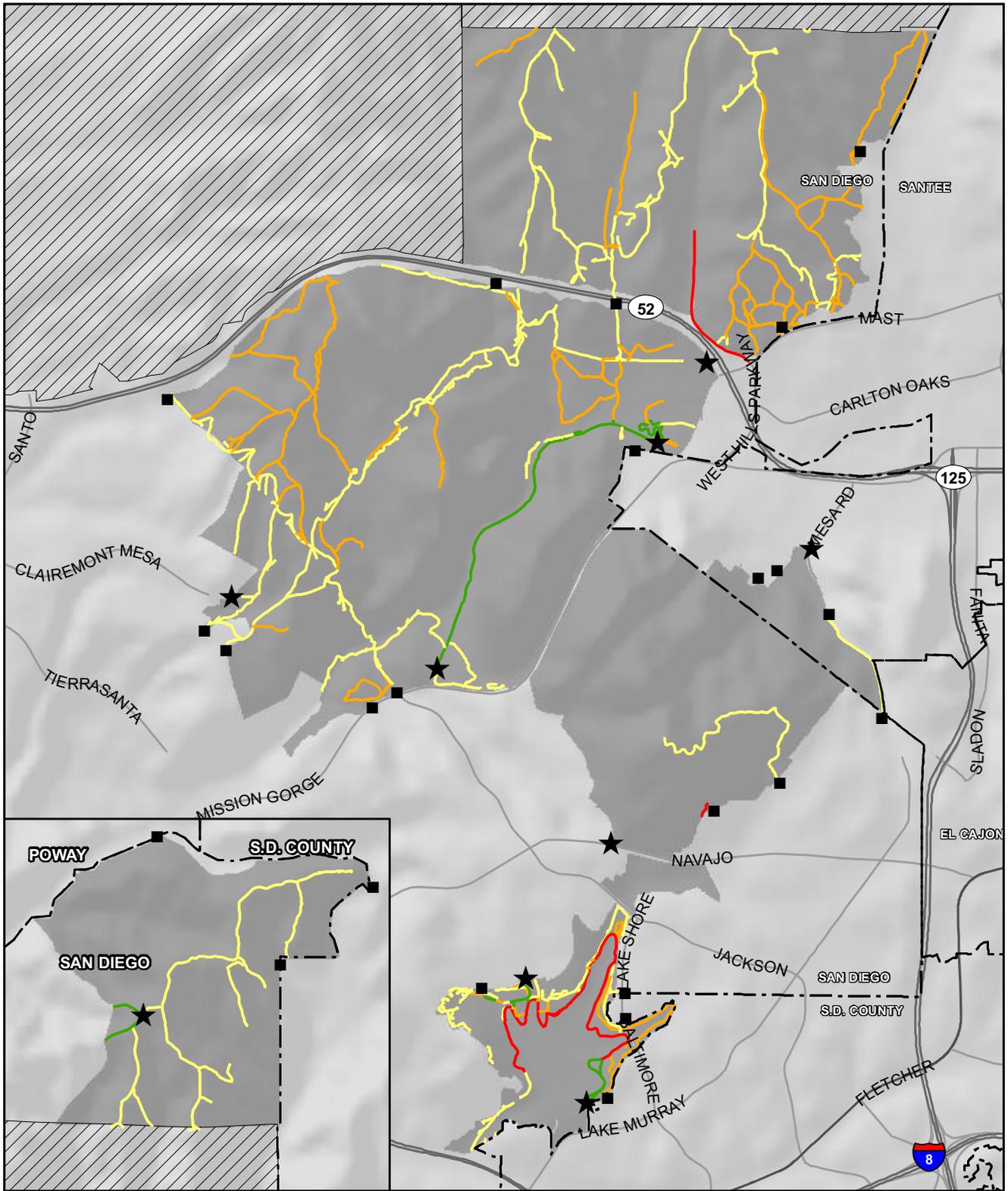
Secondary and community access points are not marked with the same prominent signage as the regional entries, nor do they provide as many improvements. Instead, they serve the local communities they occur within, and provide secondary access points into the Park which help distribute recreational usage throughout the Park:

**Lake Murray area:** Park Ridge Boulevard, Baltimore Drive, Sunset Park (La Mesa)

**Cowles Mountain area:** Barker Way, Lake Murray Boulevard, Mesa Road (Santee), Rancho Fanita Drive (Santee), Big Rock Road (Santee)

**Mission Gorge area:** Jackson Drive, Deerfield Pump Station, Simeon Drive

**Fortuna Mountain area:** Colina Dorada Drive, Calle De Vida, Corte Playa Catalina, Portobello Drive



[ - - - ] Municipal Boundaries

[ / / / ] MCAS Miramar

[ ■ ] Park Boundary and Expansion Areas

**Entries**

★ Regional

■ Secondary

**Circulation**

— Unpaved Park Road

— Unpaved Utility Road

— Paved Park Road

— Paved Maintenance Road



**FIGURE 2-10**

**Vehicular Circulation and Access Points within Study Area**

**East Elliott area:** Oak Canyon, Spring Canyon, West Hills Park (Santee)

**West Sycamore area:** Goodan Ranch staging area, utility road from Goodan Ranch

About 85 miles of trails are considered to be part of the Park's official trail system (Figure 2-11). Of these, about 54 miles are designated for hiking and bicycle usage, with an additional 16 miles of hiking only trails. Paved multi-use paths total about 5 miles, and multi-use trails (i.e., equestrian usage) make up about 10 miles. Many recreational access points are also collocated with vehicular circulation and access points (Figure 2-12).

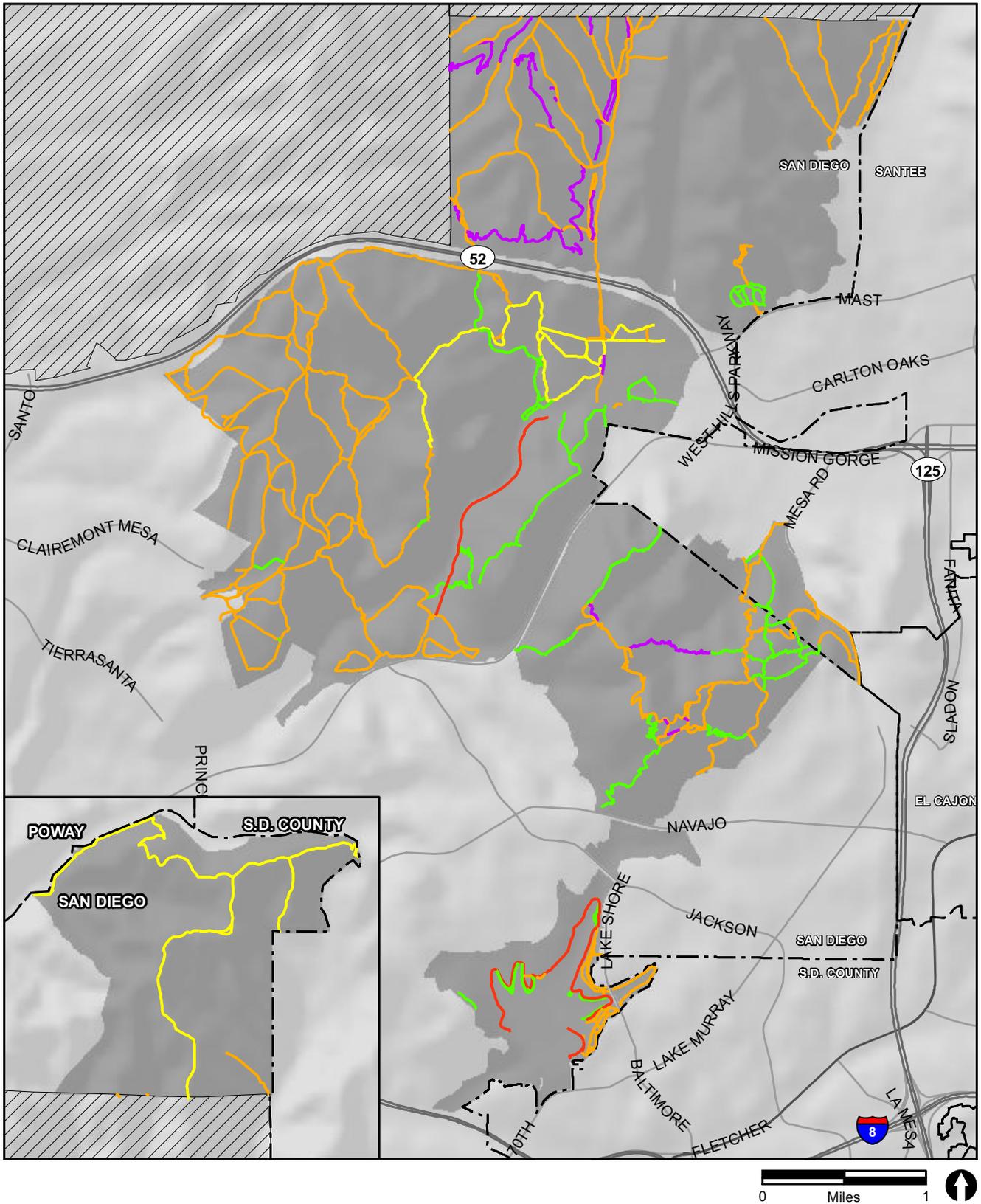
More than 63 miles of unpaved roads make up the majority of the Park roads, with nearly 41 miles being related to unpaved utility roads maintained by SDG&E and SDCWA. The remaining 23 miles of unpaved roads are Park roads used by rangers and emergency vehicles and include the Cowles Mountain service road; several roads within the Fortuna Mountain area; and a portion of roads within Spring Canyon.

### **2.2.3 Geology, Topography, and Soils**

Geologically, the region of San Diego County in which the Park is located consists of a layer cake sequence of Cenozoic sedimentary rock units which preserve portions of the last 47 million years of Earth history. These Cenozoic sedimentary rocks overlie a deeply eroded terrain formed in significantly older crystalline basement rocks (e.g., metasediments, metavolcanics, granites) of the massive Peninsular Ranges Batholith. The oldest sedimentary rocks in the Park date from the Eocene Epoch and include the Friars Formation, Stadium Conglomerate, Mission Valley Formation, and Pomerado Conglomerate.

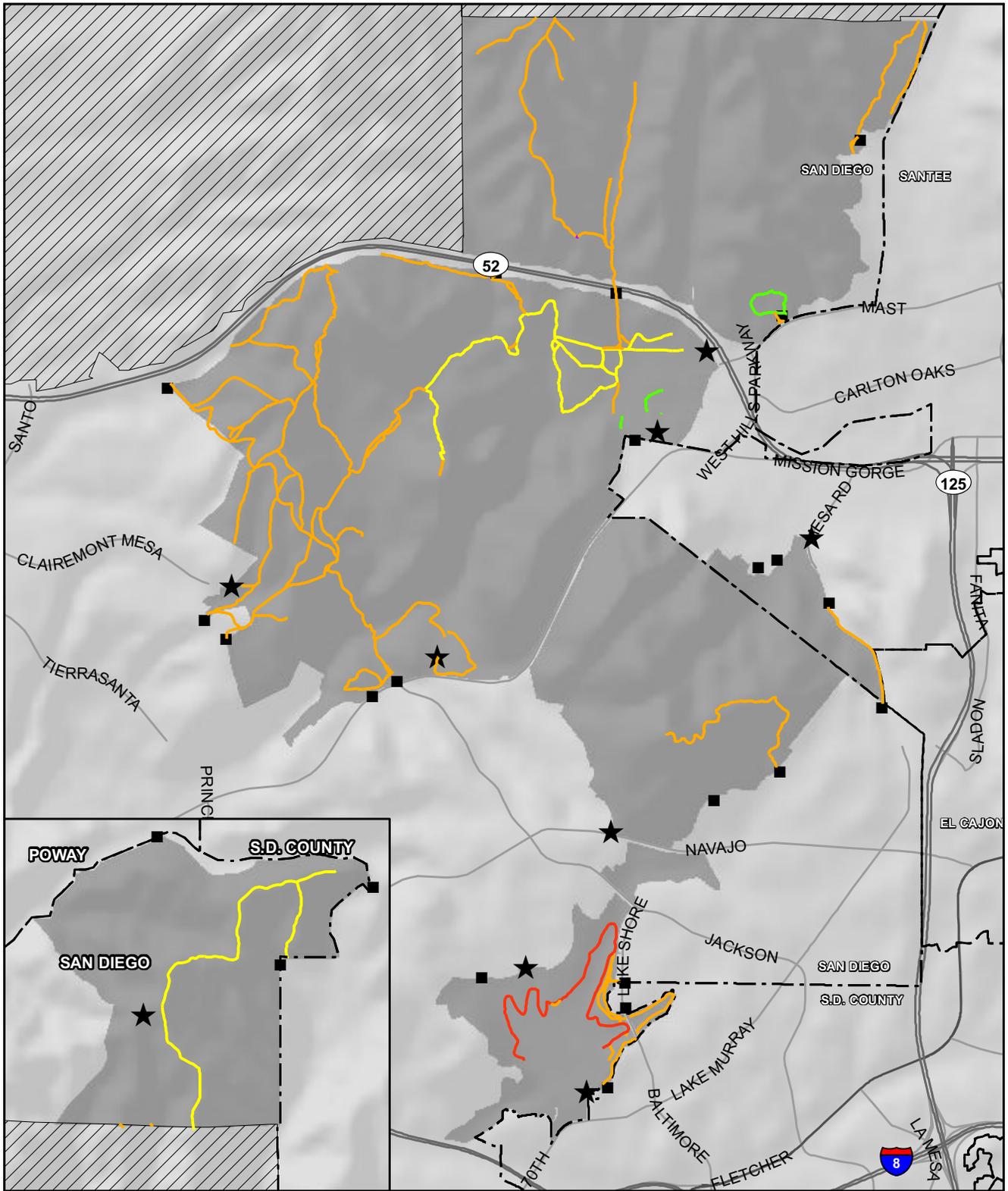
The Park contains a variety of topographic features, including canyons, valleys, mountains, hills, and low-lying areas. The topography is generally very rugged, with elevations ranging dramatically, from approximately 100 feet above mean sea level (AMSL) along the San Diego River to 1,593 feet AMSL at the summit of Cowles Mountain. A little more than 10 percent of the study area has slopes steeper than 50 percent.

The Mesozoic era geology within the Lake Murray, Cowles Mountain, Mission Gorge, and Fortuna Mountain areas has weathered into four primary soil series: acid igneous rock; metamorphic rock; Cieneba rocky coarse sandy loams; and Friant rocky fine sandy loam. The soils within the East Elliott and West Sycamore areas are uniformly Redding gravely loams, with only a few of the drainages showing any diversity. For additional details regarding the geology and soils within the Park, refer to Section 5.9 Geology and Soils. See Figures 5.9-1 and 5.9-2 for a depiction of the geologic formations and soil types found within the Park.



- |                                   |                            |                    |
|-----------------------------------|----------------------------|--------------------|
| Municipal Boundaries              | <b>Existing Trail Uses</b> | Hike/Bike Trail    |
| MCAS Miramar                      | Class I Multi-use Path     | Hiking Trail       |
| Park Boundary and Expansion Areas | Multi-use Trail            | Unauthorized Trail |

**FIGURE 2-11**  
**Recreation Trails within Study Area**



- |                                   |                |   |                    |
|-----------------------------------|----------------|---|--------------------|
| Municipal Boundaries              | <b>Entries</b> | <b>Existing Collocated Roads and Trails</b> | Hiking Trail       |
| MCAS Miramar                      | ★ Regional     | Class I Multi-use Path                      | Unauthorized Trail |
| Park Boundary and Expansion Areas | ■ Secondary    | Multi-use Trail                             | Hike/Bike Trail    |
|                                   |                | Hike/Bike Trail                             |                    |

**FIGURE 2-12**

Collocated Vehicular Circulation and Recreational Access Points

## 2.2.4 Historical Resources

The Park contains numerous historical resources, some of which are incorporated into interpretive/educational exhibits (the Old Mission Dam/Flume and Grinding Rocks). Others are protected via anonymity or inaccessibility. Prehistoric artifacts found within the Park include lithic, ceramic, and ground stone scatters; bedrock millings; and rock art. Historic Period artifacts include trash scatters, military debris, historic dirt roads, rock features, cisterns, mine shafts, and ranch complexes. For additional details regarding historical resources, refer to Section 5.6 of this PEIR.

## 2.2.5 Paleontological Resources

A paleontological records search conducted at the San Diego Natural History Museum identified 50 discrete fossil-collecting localities. The vast majority of the localities were discovered in the vicinity of the Park, but do not actually occur within the Park itself. Many of the fossil-collecting localities recorded from this region were discovered during monitoring of excavation activities associated with development activities. For additional details regarding paleontological resources, refer to Section 5.10 of this PEIR. See Figures 5.10-1a, 5.10-1b, and 5.10-2 for a depiction of the geologic formations and areas of paleontological sensitivities within the Park.

## 2.2.6 Biological Resources

The Park is a diverse biological area containing habitats of limited distribution, supporting endangered and threatened plant and animal species. It is also a regional core resource area with key linkages east and west along the San Diego River and direct connectivity to core resource areas to the northeast. A majority of the Park is within the MHPA (87 percent). Vegetation communities within the study area are primarily composed of Diegan coastal sage scrub (37.5 percent), chamise chaparral (21.9 percent), southern mixed chaparral (13.4 percent), non-native grassland (12.3 percent), developed lands (7.0 percent), and other vegetation communities (7.9 percent).

The Park contains a high diversity of plant species resulting from the multiple niches created by complex topography, soils, and its geographic location in coastal San Diego County. It currently supports a total of 244 plant species, representing 61 plant families. Of this total, 196 (80 percent) are native species, while 52 (20 percent) are introduced, non-native species.

The Park currently supports a diverse wildlife population, including at least 26 mammals, 101 birds, 17 reptiles and amphibians, and more than 600 invertebrate species. The diversity of animal species observed or expected to occur within the Park is typical of large, ecologically connected open space areas within coastal San Diego County. For additional details regarding biological resources, refer to Section 5.5 of this PEIR and the Natural Resources Management Plan for Mission Trails Regional Park.

## 2.2.7 Hydrology

The Park is within two watersheds: San Diego River and Los Peñasquitos Creek. The majority of the Park is within the San Diego River watershed, which has its headwaters in the Cuyamaca Mountains

near Julian and its terminus in San Diego near Mission Bay. Historically, the San Diego River flowed intermittently west of El Capitan and was characterized by periods of drought and extreme flooding events. Currently, with the addition of several dams and additional water inputs from urban runoff and treated wastewater, the San Diego River flows year-round and is less prone to flooding.

The Peñasquitos Creek watershed is relatively small and drains a mainly urbanized area of coastal San Diego. A portion of the Los Peñasquitos Creek watershed is contained within the northwest corner of the West Sycamore area of the Park. The watershed begins at its headwaters in Poway, just north of the Park, and flows through a series of military, open space, and urbanized canyons to empty into the Pacific Ocean at the Los Peñasquitos Lagoon. As with the San Diego River, Peñasquitos Creek originally flowed intermittently and is now considered to have perennial flows due to increased water flows from urbanization. For additional details regarding hydrology within the Park, refer to Section 5.8 of this PEIR. See Figure 5.8-1 for a depiction of the water and surface hydrology within the Park and surrounding area.

## **2.2.8 Air Quality/Climate**

The Park is within the San Diego Air Basin (SDAB), about 12 miles east of the Pacific Ocean. The SDAB is characterized by a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range. For additional details regarding air quality and climate, refer to Section 5.3, Air Quality and Section 5.4, Greenhouse Gas Emissions of this PEIR.

## **2.3 Infrastructure and Public Services**

### **2.3.1 Water and Wastewater**

The SDCWA operates several pipelines and associated facilities that traverse five of the six areas of the Park: San Vicente Pipeline, Pipelines 3 and 4, Scripps Ranch Pipeline, and the Mission Trails Pipeline. The City of San Diego Public Utilities Department (PUD) 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. They also operate the Alvarado Water Treatment Plant which can currently process up to 200 million gallons of water per day. The City of San Diego PUD operates and maintains major sewer facilities in the Park, including the Lake Murray Trunk Sewer, the Mission Gorge Trunk Sewer, the East Mission Gorge Interceptor, and associated sewer mains. For additional details regarding water and wastewater facilities, refer to Section 5.13, Public Utilities.

### **2.3.2 Electrical Transmission and Generation**

Several SDG&E electrical transmission lines traverse portions of the Park. The main transmission line that runs through the Park begins in the West Sycamore area, extending south to the Sycamore

Substation, and southwest through the East Elliott and Fortuna Mountain areas to the East Elliott Substation along Tierrasanta Boulevard, outside of the Park boundaries. A smaller transmission line branches off the main transmission line; near the Sycamore Canyon Landfill this line runs east to the Carlton Hills Substation, which is also located outside of the Park's boundary.

### **2.3.3 Fire Protection Services**

The Park is served by the San Diego Fire-Rescue Department (SDFD). The SDFD service area covers approximately 331 square miles and serves a population of approximately 1,337,000 people. SDFD has a total of 47 fire stations, employing 801 uniformed fire personnel. In addition to fighting fires, SDFD responds to medical emergency calls (over 80 percent of department calls are for medical aid), and SDFD's Fire Prevention Bureau conducts more than 20,000 annual inspections and issues fire code permits (alarms, hazardous materials, special events) while developing safety policies and guidelines for residents and businesses.

The SDFD strives to provide an average maximum initial response time of no more than 5 minutes. The SDFD also relies on Automatic Aid Agreements with its neighboring jurisdictions to ensure that the closest station would respond to an incident. The City of Santee Fire and Emergency Services Department supports SDFD and would be able to provide aid during incidents. Additional resources are available to the City through Mutual Aid Agreements with the county, state, and federal governments.

In 2014, a fire services deployment planning study was completed (Citygate 2014). The study analyzed the City's SDFD performance measures and deployment and staffing models and provides recommendations to improve City Fire-Rescue Department operations. The report included recommendations for revised deployment measures including use of a 5-minute travel time model that would achieve improved fire response coverage and service. The report also recommends fire unit deployment performance measures be implemented based on population density zones and aggregate population definitions (metropolitan, urban-suburban, rural, remote). In 2011, the San Diego City Council adopted the findings and recommendations of the Citygate report and established a five-year implementation plan to design and construct 19 fire stations. For additional details regarding fire service, refer to Section 5.12, Public Services.

### **2.3.4 Police Protection Services**

The goals of the San Diego Police Department (SDPD) are to reduce violent crime through prevention, and identify and apprehend criminal offenders; maintain priority call response times; and to ensure effective policing by addressing command and community priorities. The study area is served by the eastern and northeastern divisions of the SDPD. Within the study area, the eastern division serves the neighborhoods of Allied Gardens, Del Cerro, Grantville, Kearny Mesa, Lake Murray, and Tierrasanta; the northeastern division serves Scripps Ranch and Rancho Encantada.

The SDPD's goal for responding to emergency calls is 7 minutes. The SDPD staffing goal is to maintain 1.48 officers per 1,000 population ratio. A Law Enforcement Mutual Aid Plan permits SDPD's Chief of Police to order law enforcement mutual aid services from other jurisdictions (Municipal Code Section 22.0602). The San Diego County Sheriff's Department provides law

enforcement services to the City of Santee with a substation that would be available to support the SDPD. For additional details regarding police service, refer to Section 5.12, Public Services.

### **2.3.5 Schools**

While there are no schools located within the boundaries of the Park, the surrounding communities are served by schools within the San Diego Unified School District, Santee School District, and the Poway Unified School District. The Tierrasanta CPA is served by four elementary schools, one junior high school, and one high school. The Navajo CPA is served by ten elementary schools, two junior high schools, one high school, and three private schools. Grossmont Community College is located near the eastern boundary of the Cowles Mountain area, within the City of El Cajon. Within the East Elliott CPA, there are currently no schools as the area consists primarily of open space and a landfill. An elementary school within the Poway Unified School District is planned in the Sycamore Estates portion of the Rancho Encantada Precise Plan area, near the West Sycamore area. The Santee School District operates ten schools serving the communities east of the Park within the City of Santee. For additional details regarding schools, refer to Section 5.12, Public Services.

## **2.4 Planning Context**

### **2.4.1 City of San Diego Municipal Code**

The City of San Diego Municipal Code (Municipal Code) regulates zoning and land use categories throughout the City. It is intended to be the means by which the land use policies in the General Plan are implemented. The Municipal Code identifies the uses that are allowed on parcels within the City.

The Land Development Code (LDC) is one of the tools used to implement the General Plan and the various community plans, which establish land use throughout the City. The provisions addressing Site Development Permits, Historical Resources Regulations, and Environmentally Sensitive Lands (ESL) Regulations are applicable to the Project.

In addition, Chapter 13, Article 2, Division 12 of the LDC establishes the supplemental development regulations of the Mission Trails Design District Ordinance (MTDDO) and associated Design Manual. These regulations ensure that development along the edges of the Park enhances the park's natural qualities and promotes the aesthetic and functional quality of park/urbanization relationships.

Chapter 13, Article 2, Division 14 of the LDC establishes supplemental development regulations that are tailored to specific sites within the community plan areas in the City. In order to implement the San Diego River Park Master Plan, the San Diego River Park Subdistrict Community Plan Implementation Overlay Zone (CPIOZ-Type B) is applied to all properties within two subareas of the river, the River Corridor Area and the River Influence Area. The River Corridor Area comprised of the current 100-year floodway (floodway) as mapped by Federal Emergency Management Agency (FEMA) and the 35-foot-wide Path Corridor on each side of the floodway.

Within these areas designated as CPIOZ-Type B, no building, improvement, or portion thereof shall be erected, constructed, converted, altered, enlarged, or established until a discretionary permit is

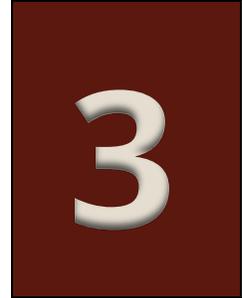
obtained. Applications for a CPIOZ-Type B discretionary permit shall meet the regulations of the underlying zone and the purpose and intent of the supplemental development regulations, and the San Diego River Park Master Plan. Supplemental development regulations applicable to the San Diego River Park Subdistrict are defined within the Navajo Community Plan and Land Development Code Section 143.0145 (Development Regulations for Special Flood Hazard Areas).

## **2.4.2 City of San Diego Community and Precise Plans**

The City has multiple community plans within the study area, which act as “mini” general plans and are intended to provide policy recommendations regarding future development specific to each community. The Rancho Encantada Precise Plan is essentially equivalent to a community plan, as it serves as a detailed plan for development of the area. The three community plans (Navajo, Tierrasanta, and East Elliott) and the Rancho Encantada Precise Plan are directly influenced by the Park, as well as the Plans. Amendments are proposed to update or correct maps and community plan language needed as part of Project approval. The amendments would ensure that policy recommendations in the Community and Precise Plans with regards to the management of the Park are consistent with updated policies in the Plans.

## **2.4.3 Multiple Species Conservation Program**

The City’s Multiple Species Conservation Program (MSCP) Subarea Plan was adopted in 1997 in order to meet the requirements of the federal and state Endangered Species Acts and the California Natural Communities Conservation Planning Act. The MSCP is a comprehensive habitat conservation planning program that addresses multiple species habitat needs and the preservation of native vegetation communities in the San Diego region. A majority of the study area is within or immediately adjacent to the MHPA, which is the City’s planned habitat preserve within the MSCP Subarea. Section 5.1, Land Use, further discusses the regulations of the MSCP and provides an analysis of the Project’s consistency with these plans.



## Chapter 3

# Project Description

The Project analyzed in this Draft Program Environmental Impact Report (PEIR) comprises the implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park), as well as several discretionary actions listed in Table 3-1. The proposed Plans and associated regulatory documents and actions form the “Project” for this PEIR, and are referred to throughout the PEIR as the Project. The project description contained within this section provides the basis for the environmental analysis in this PEIR for the Plans and associated discretionary actions.

<b>Table 3-1 Project Components</b>
Certification of the Program Environmental Impact Report
Adoption of Mission Trails Regional Park Master Plan Update
Adoption of Natural Resources Management Plan
Adoption of Community Plan and Precise Plan Amendments:
<ul style="list-style-type: none"> <li>• Navajo Community Plan</li> <li>• Tierrasanta Community Plan</li> <li>• East Elliott Community Plan</li> <li>• Rancho Encantada Precise Plan</li> </ul>

The Plans have been developed as an integrated set of management guidelines for the Park, with the MPU focusing on public access and recreation, and the NRMP focusing on natural resources. The Plans were prepared concurrently in order to coordinate the recommendations and management actions for the six areas that comprise the study area—Lake Murray, Cowles Mountain, Mission Gorge, Fortuna Mountain, East Elliott, and West Sycamore. The East Elliott and West Sycamore areas would be park expansion areas.

The MPU provides updated recommendations to the 1985 Master Plan (Recommendations). The MPU recommendations range from broad overarching policy and management-related topics that

affect the entire Park, to specific physical improvements within the areas. The recommendations are focused on improving overall land/resource management, the safety and sustainability of recreational trails, improving recreational access, and eliminating conflicts between recreational uses and natural habitat.

The MPU identifies conceptual projects that may be implemented after adoption of the Plans. These are referred to as “subsequent projects” throughout the PEIR. Such projects recommended by the MPU include (but are not limited to) trail improvements, trailheads, picnic and shade areas, restrooms, parking areas, and interpretive overlooks. Subsequent projects identified in the MPU are conceptual, including trail alignments discussed below. Subsequent projects also include recommendations for the proposed location of improved and additional parking areas. The MPU does not provide for any specific location or design for subsequent projects that may potentially be implemented. These subsequent projects would require further design and review as they are proposed.

The NRMP sets forth adaptive management actions to ensure long-term, viable populations of sensitive species and habitats within the Park. It also sets forth protocols (e.g., data collection methods, success criteria) to evaluate the effectiveness of these management actions. The NRMP fulfills a requirement identified in the City of San Diego’s (City’s) Multiple Species Conservation Program (MSCP) Subarea Plan to set forth an adaptive management framework in order to protect sensitive biological resources at the Park.

Other NRMP management actions—such as monitoring, weeding, or restoration—may have the potential to in turn cause environmental impacts. However, the NRMP also details minimization measures that would be required to be followed prior to implementation. Therefore, the NRMP would generally not result in environmental impacts, but is analyzed where necessary throughout the PEIR.

The project also includes amendments to the Navajo, Tierrasanta, and East Elliott Community Plans, as well as to the Rancho Encantada Precise Plan. The amendments are required to update or correct maps and community plan language where the plans reference outdated information regarding the Park and the Master Plan. These amendments would ensure that the future facilities proposed under the MPU are consistent with the respective Community Plans and/or Precise Plan and that any policy recommendations with regards to the management of the Park are consistent with updated policies in the Plans or simply make reference to the Plans.

## **3.1 Project Objectives**

The Plans address the long-term protection of natural resources and development goals in support of recreation and interpretation within the Park. For the purposes of this PEIR, the goals of the Plans are the objectives of the Project as defined by the California Environmental Quality Act (CEQA) Guidelines:

1. Provide a structure for ongoing land and resource management actions required to maintain the Park and protect its resources.

2. Identify unsafe or unsustainable sections of recreational trails and provide guidance for the types of management action required.
3. Identify missing or constrained linkages within the Park and provide new or alternative routes to improve the recreational connectivity while protecting the Park's natural and cultural resources.
4. Integrate the management actions identified in the NRMP with the recreational trails network throughout the Park.
5. Provide amenities that support the recreational uses that currently exist or are proposed as part of the MPU.

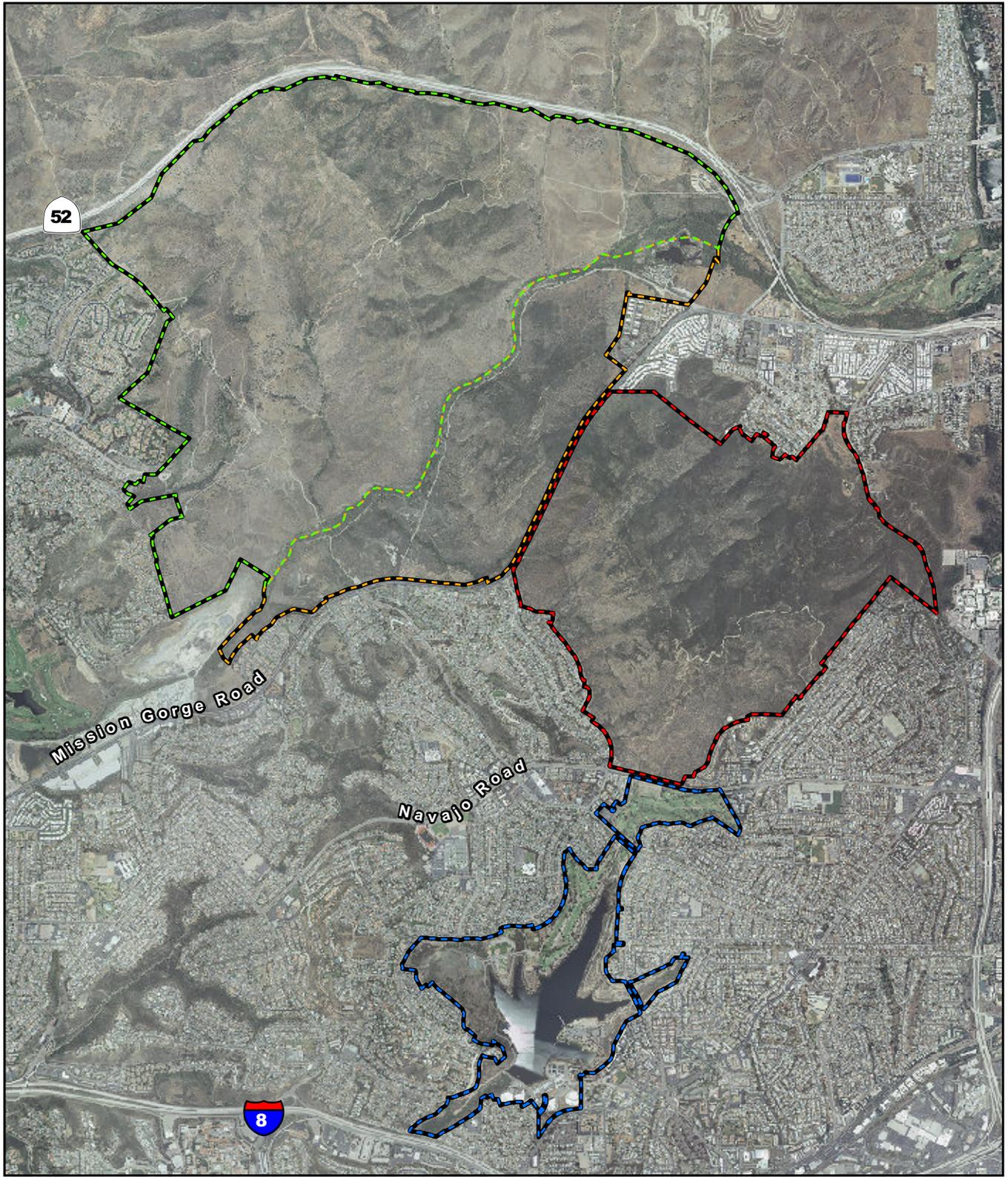
## **3.2 Project Components**

### **3.2.1 Planning Background**

At approximately 5,830 acres, the Park as originally envisioned was one of the largest urban parks of its kind in the west. Although largely surrounded by residential development, the Park contains mountains, valleys, two lakes, a major river and scenic gorge, historical landmarks, wildlife habitats, and cultural resources. The origins of the Park go back to 1960, when the City prepared the report "Proposed Fortuna Mountain-Mission Gorge Metropolitan Park." This report identified a park of approximately 1,765 acres that included Mission Gorge, Old Mission Dam, and the entire Fortuna Mountain ridge. Through a cooperative City-County effort, Cowles Mountain was purchased in 1974, which linked the proposed regional park with Lake Murray. The City and County developed a "Park Complex" of these areas—Lake Murray, Cowles Mountain, Fortuna Mountain, and Mission Gorge (Figure 3-1)—which in turn led to the joint effort to prepare the Park's 1976 Master Development Plan (MDP).

The Park's Task Force was established in 1977 and currently is composed of representatives from the City, County, City of Santee, City of La Mesa, and a representative of the Citizens' Advisory Committee (CAC). The CAC was also formed in 1977 by the Task Force, which jointly renamed the park complex to "Mission Trails Regional Park." The CAC also reviewed and revised the 1976 MDP to its most recent iteration, the 1985 MDP. Some of the facilities and improvements identified in the 1985 MDP have been realized, including land acquisitions, creation of staging areas, Old Mission Dam improvements, and opening of the Visitor and Interpretive Center and Kumeyaay Lake Campground.

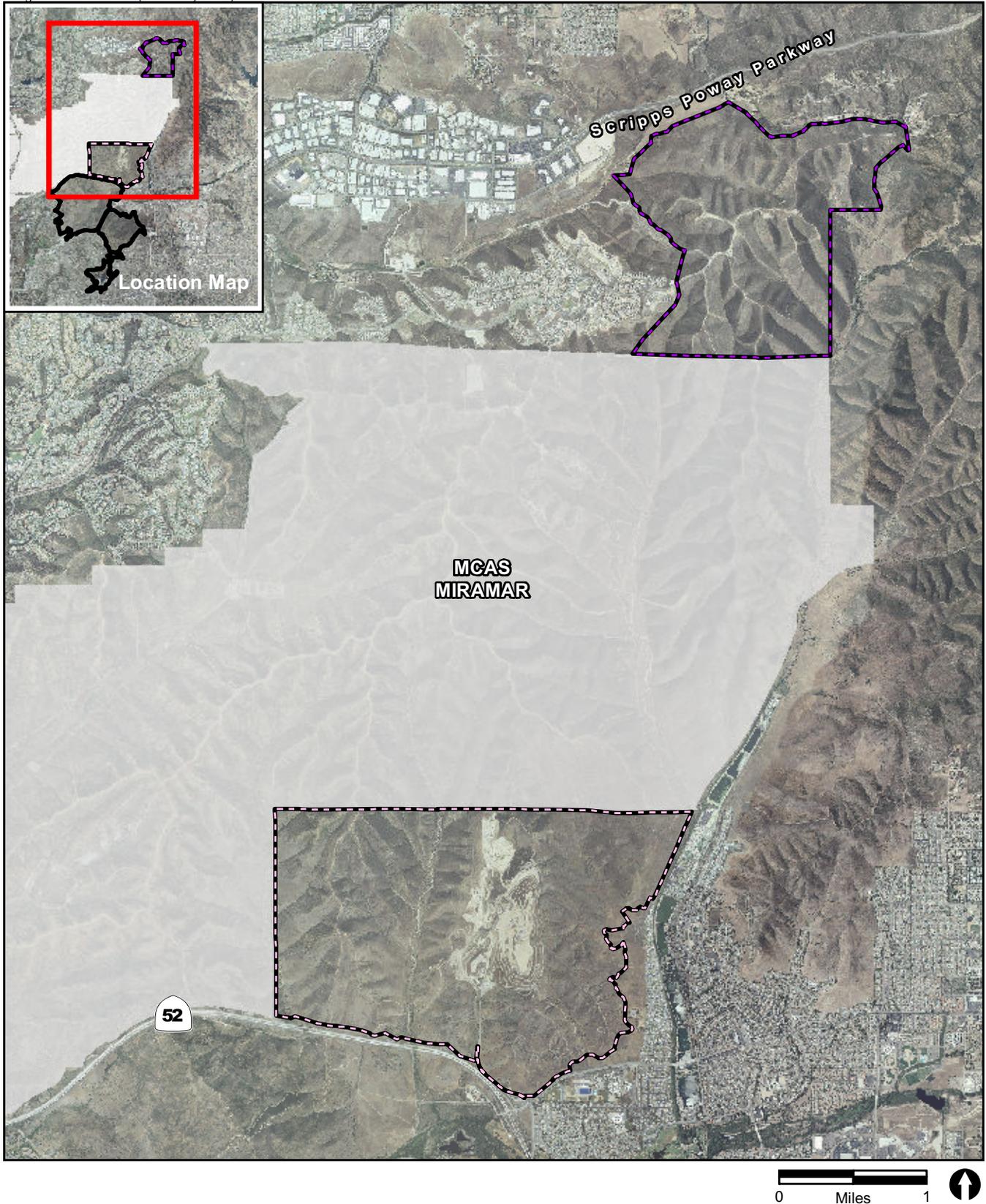
Since approval of the 1985 MDP, two expansion areas—the East Elliott and West Sycamore areas—have been identified for inclusion within the Park upon approval of the Project (Figure 3-2). The addition of these areas would bring the Park's total area to approximately 9,780 acres. The East Elliott area is north of State Route 52 (SR-52), between Marine Corps Air Station (MCAS) Miramar and the City of Santee, while West Sycamore is north of MCAS Miramar, west of Goodan Ranch, and south of Sycamore Canyon Road.



-  Project Boundary
-  Cowles Mountain Area
-  Fortuna Mountain Area
-  Lake Murray Area
-  Mission Gorge Area



**FIGURE 3-1**  
Original Areas of Mission Trails Regional Park



-  Project Boundary
-  East Elliott Area
-  West Sycamore Area

**FIGURE 3-2**  
Proposed Expansion Areas

The vast majority of the East Elliott area has been designated as Multi-Habitat Planning Area (MHPA) as part of the City's MSCP Subarea Plan. It constitutes one of the largest and biologically most important remaining open space areas in the City, with a number of endangered and threatened wildlife species. All lands within the MHPA are required to conserve 75 percent of the parcel for habitat conservation purposes. Private property owners will continue to have development rights per the Community Plan, however, the City is actively pursuing the acquisition of land in this area and currently owns approximately 735 acres (approximately 29 percent). As land is acquired or dedicated in fee or by easement, it will become part of the Park.

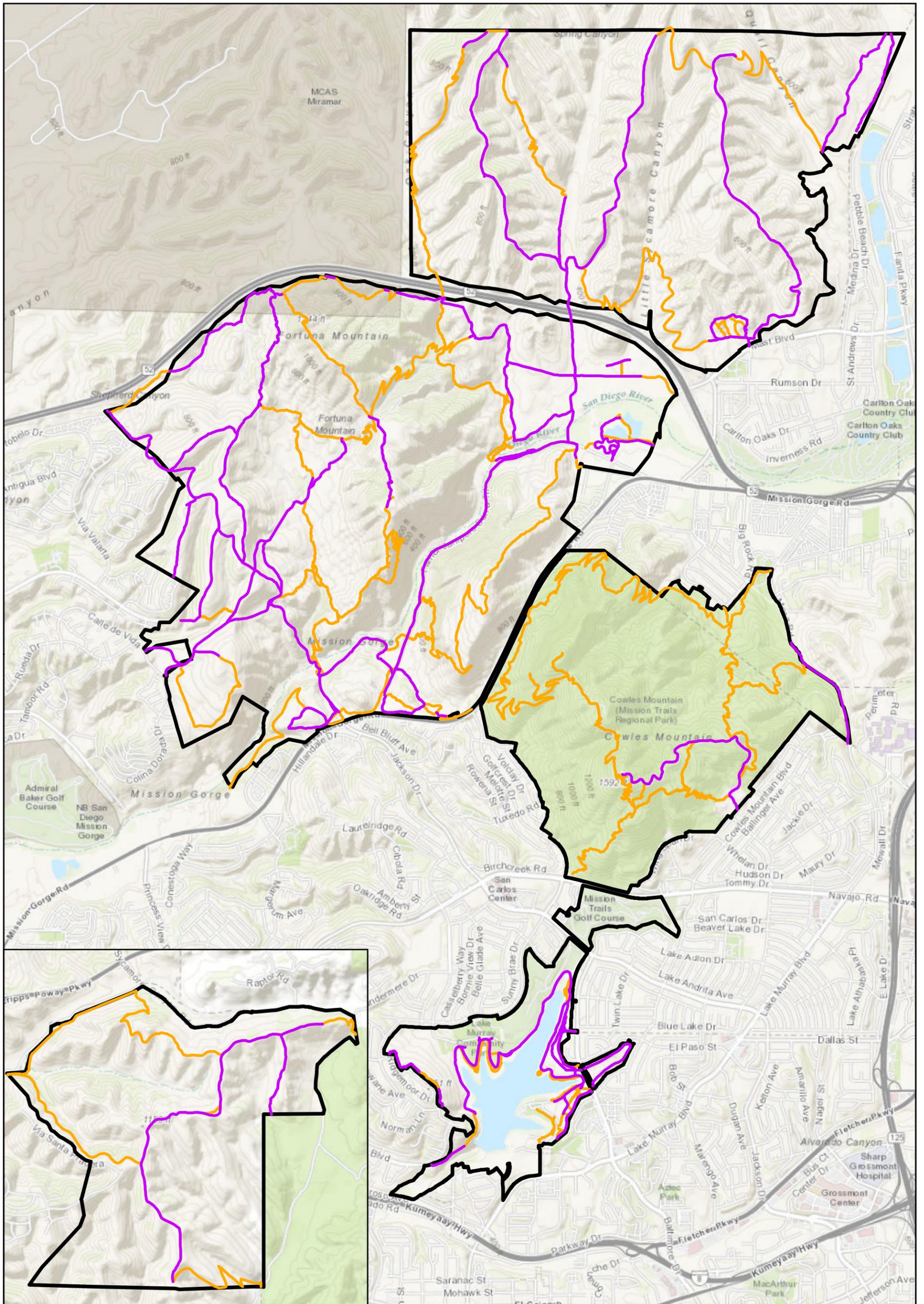
Two areas have contributed to the formation of the West Sycamore area. An agreement between the City and a developer, approved by the City Council in 2001 as part of the Rancho Encantada Precise Plan, obligated the developer to convey 1,568 acres of land within the MHPA. An adjacent 252 acres was previously acquired by the City, which was formerly known as "MTRP North."

### **3.2.2 Master Plan Update Recommendations**

A planning analysis based on existing conditions in the Park was used to first develop the MPU, which led to the development of recommendations, ranging from broad overarching policy and management related topics that affect the entire Park to specific physical improvements within the areas. The policy and management-related topics that affect the entire Park would generally have no physical impact on the environment, while specific physical improvements (subsequent projects) may, and are therefore analyzed throughout Chapter 5 of this PEIR.

The MPU recommendations pertaining to recreational trails are contained in one of three categories: closures, reroutes, and new construction (Figure 3-3). Trail closures are primarily identified where the existing system is redundant or has been created through unauthorized construction activities. Some closures are not recommended until a new safer and more sustainable trail is constructed. Potential trail reroutes are identified where the existing trail is very steep, showing signs of erosion, or is too close to sensitive species or habitats. For each reroute, localized improvements within the existing trail are to be assessed first to see if corrective measures can be implemented. If localized measures prove inadequate or infeasible, then the trail is recommended for a more substantial reroute. The last category is new trails that improve access to the Park, provide alternative access to sections of the Park, or create interconnected loops.

The general approach to habitat impacts due to future trail projects is to minimize and avoid to the maximum extent practicable, but to also utilize on-site mitigation banking through restoration efforts associated with recommended trail closures and other areas of disturbed habitats. If adequate restoration efforts have not occurred prior to new impacts, off-site mitigation will need to be incorporated into the scope of a subsequent project.



- Project Boundary
- Proposed Trails at Buildout not Collocated on Access Roads
- Proposed Trails at Buildout Collocated on Access Roads



FIGURE 3-3

Proposed Trail Buildout

The broad Park-wide recommendations as presented in the MPU are presented first, followed by each area within the Park. Within each of the following sections, the recommendations are presented in the following order:

- a. General Recommendations
- b. Planning Recommendations
- c. Management Recommendations
- d. Funding Recommendations
- e. Facilities Recommendations
- f. Habitat/Species Recommendations
- g. Recreation Recommendations

### **3.2.2.1 Park-wide Policies**

#### **a. General Recommendations**

1. Aspire to serve the comprehensive recreation, education, and cultural needs of the San Diego region and be available for other uses as appropriate or necessary.
2. Manage the park to be in compliance with the City of San Diego MSCP Subarea Plan.
3. Implement the habitat and species specific management recommendations contained in the MTRP NRMP.
4. Endeavor to make the park universally accessible to the extent practicable.
5. Strive to support projects that promote sustainable practices within and around MTRP.
6. Carefully manage potential concessionaires within the park and ensure they include a well-conceived marketing program.

#### **b. Planning Recommendations**

1. Update the MTRP Master Plan every fifteen to twenty years to keep it current with new planning requirements, environmental knowledge, completed projects, and recreational needs.
2. Implement and update the MTRP NRMP as required to ensure continued compliance with the City of San Diego MSCP Subarea Plan.
3. Design neighborhood or community parks on the perimeter of MTRP to be compatible in design with the park and function as additional community entries and trailheads to the park.
4. Incorporate trail linkages and public recreation into new developments adjacent to the park.
5. Continue to enforce the City of San Diego Mission Trails Design District Ordinance and Design Manual.

6. Remove the extension of Clairemont Mesa Boulevard and the addition of Jackson Drive within the park boundaries as part of the next Tierrasanta Community Plan update.
7. Maintain the wilderness character and visual integrity of the park's higher elevations in a natural state, especially the ridgeline land mass between Cowles and Fortuna Mountains.
8. Continue to prohibit all off-road vehicle use within the park.
9. Cluster intensive recreational uses, such as staging and group picnic areas, to minimize park roads and infrastructure costs.
10. Support the dedication of designated open space within and around MTRP. All potential dedications shall be reviewed by City PUD, SDCWA, and SDG&E to determine if there are facilities that need to be excluded. As part of the Open Space Dedication process, underlying zoning should be updated as appropriate.
11. Continue to support water reclamation for stream replenishment. Every effort should be made to ensure that the San Diego River flows as a "live stream" throughout the year for long-term recreational and ecological values.
12. Continue to subject sand and gravel, and/or other mineral extraction sites adjacent to the park to Conditional Use Permit (CUP) procedures, and include Reclamation Plans as required by the State's Surface Mining and Reclamation Act of 1975. Such plans should include both operations and rehabilitation programs that are compatible with park objectives.
13. Accommodate trail linkages and public recreation in rehabilitation plans for mineral extraction areas along the San Diego River and adjacent to the park. This may include flood plain controls along the San Diego River to ensure major trail connections into and out of the park.
14. Require a Right of Entry permit for commercial users and limit their number and frequency as appropriate to protect the resources of the park.
15. Enforce the MTRP tree planting guidelines approved by the CAC and Task Force (Appendix C of the MPU).
16. Develop an overall tree planting plan to be used in conjunction with the tree planting guidelines to guide annual Arbor Day plantings, as well as other donations or volunteer efforts.
17. Coordinate with the Cities of San Diego and Santee and SANDAG to determine the feasibility of providing a bus stop at one or more locations near the Park.
18. Support the implementation of the City of San Diego's San Diego River Park Master Plan within the boundaries of MTRP.

### **c. Management Recommendations**

1. Continue the roles of the MTRP Task Force and CAC in the planning and implementation process.

2. Develop maintenance guidelines to adapt the existing network of roads within the park to minimize the disruption of the natural hydrology and maintain a walking and riding surface that is conducive to recreational use. These guidelines should identify maintained widths, surface materials, and grading practices for all utility and access roads within the park, and should be reviewed and approved by the City's Park and Recreation Department, the City PUD, SDCWA, and SDG&E.
3. Minimize the development impact of any infrastructure facility and seek an environmental and/or financial contribution from the project for the park. The MTRP CAC and Task Force have an approved "Good Neighbor Policy" (Appendix D of the MPU) with SDCWA for development and maintenance of their facilities within the park. Similar policies should be encouraged with other entities as projects are proposed within the park.
4. Protect and manage identified cultural resources through proper planning for avoidance of significant impacts, maintain site identification markings as appropriate, enforce historic preservation regulations for all park users, and develop and maintain an archaeological site monitoring program.
5. Develop a plan in cooperation with interested local historical and archaeological groups, local Native American tribes, and educational institutions to promote public participation in historic preservation and enjoyment of cultural resources within MTRP .
6. Hold periodic informal meetings between park rangers and members from each of the major recreational groups (e.g. hikers, cyclist, equestrian, rock climbing) to discuss trail planning, design, implementation, and maintenance needs/concerns throughout the park. The park ranger would present issues/projects to the CAC, Task Force, and City staff for approval, that are consistent with the master plan.
7. Hold periodic coordination meetings with MCAS Miramar Provost Marshal on trespass issues between the park and the installation.
8. Develop an emergency response plan for the park in collaboration with San Diego Fire-Rescue and San Diego Police Departments.
9. Develop a Fire Response Plan that identifies access points, preferred routes, and prioritizes the use of existing roads as fire breaks over new grading. The Plan will identify resource protection areas, fire suppression priorities based on resource sensitivity, and post-fire BMPs to minimize erosion and sedimentation, and invasive weed control.
10. Develop paleontological monitoring and discovery treatment plans for any project that will include disturbance of native bedrock formations.
11. Develop archaeological data recovery programs for any projects that may impact cultural resource sites. Priority will be given to avoidance and minimization of impacts prior to implementing a data recovery program.

12. Develop a public awareness campaign for recreational users covering park rules, regulations, and boundaries.
13. Develop and implement a public information and education program focused on the requirements of the MSCP relative to the management and use of different areas of the park.
14. Conduct regular patrols of the park and enforce park rules, regulations and boundaries.

#### **d. Funding Recommendations**

1. Continue to use existing funding sources, such as the MTRP Antennae fund and the City's Environmental Growth Fund and Regional Park Fund, to implement high-priority projects.
2. Continue to vigorously pursue State and Federal funding for urban regional parks and trails.
3. Pursue grant funding from the San Diego River Conservancy for the design and construction of the San Diego River Trail.
4. Pursue other grant sources and non-profit partnerships whenever viable to help implement projects.
5. Implement an accounting system to track material costs and staff/volunteer labor hours used annually within the various areas of the park to maintain the existing improvements. Use this information to help prioritize the individual recommendations contained in the MPU.
6. Augment park staff and maintenance funding commiserate with the implementation of new facilities, recreational amenities, or trails.

#### **e. Facility Recommendations**

1. Incorporate consistent architectural design vocabulary on any new structure with other buildings in the park and use common rooflines, basic shapes, and structural connections as unifying elements, allowing differences in materials, textures, and colors to reflect the unique character of each use and location.
2. Include overhangs and shade elements on any new structures to shelter people from the sun.
3. Install and maintain simple, consistently designed park furniture – picnic tables, benches, trash receptacles, directional signs.
4. Support the designation of major roads within and adjoining the park as scenic corridors or parkways.
5. Maintain a strong identity, location and image of the park and its boundaries through effective identification graphics and other means. All signage should be consistent with the MTRP - Park Signage Program, see Appendix E of the MPU.
6. Maintain and repair existing signage on an as needed basis.

7. Install, maintain, and repair directional signage on an as needed basis.
8. Construct and maintain signage with maps showing accessibility information, use areas, trails, access points and mileage near each of the major entry points into the area.
9. For new and/or significantly rerouted trails designate official trail names and publish updated trail maps on an as needed basis.
10. Develop and incorporate additional interpretive signage along the major trails near interpretable features, rest stops, or overlooks.
11. Assess the need for additional seating along sections of trails to provide rest stops.
12. Plant only native plants within the park.
13. Continue to prohibit fires in the park to reduce fire danger, except within developed fire rings at the Kumeyaay Lake Campground, the East Fortuna Staging Area, and Lake Murray.
14. Maintain and repair park and utility roads and crossings of streams on an as needed basis.
15. Construct vehicular on-grade dip crossings of creeks and drainages with local rock to create a stable crossing where practicable. Concrete dip crossings or bridge structures may be required due to local site conditions.
16. Conduct brush management in the brush management zone around all habitable structures within the park in accordance with City of San Diego brush management regulations.
17. Provide accessibility signage at each major park entry/trailhead in consultation with the Open Space Division.

## **f. Habitat/Species Recommendations**

1. Construct fencing as required, maintaining access control to the park.
2. Protect populations of identified sensitive plants including: San Diego thornmint, San Diego ambrosia, Variegated dudleya, Del Mar manzanita, Orcutt's brodiaea, Coast barrel cactus, summer holly, and decumbent goldenbush. Reroute existing and proposed trails to avoid impacts.
3. Construct wildlife compatible fencing where necessary to protect sensitive species, habitats, and cultural/historic resources.
4. Maintain and enhance where possible all regional and local wildlife corridors in and around the park areas.
5. Coordinate the repair and maintenance of fencing with Caltrans along SR-52 to direct wildlife towards one of the four existing wildlife crossings.

6. Close unauthorized user created trails where appropriate to reduce habitat fragmentation and encroachment.
7. Implement the adopted MTRP San Diego Ambrosia Management Plan.
8. Eradicate non-native invasive species from the park whenever feasible. Control species that cannot be eradicated on a regular basis to prevent significant spreading. Restore native species and habitats, including vernal pool species throughout the park utilizing local seed/nursery stock when available.
9. Coordinate with the San Diego Mitigation Monitoring Program (SDMMP) and other regional stakeholders (including universities) on ways to aid restoration and recovery efforts for habitats and species throughout the park. This would include the collection and storage of native seed from within the park for future habitat mitigation, restoration or recovery efforts within the park in accordance with the Center for Plant Conservation Guidelines.
10. Conduct ecological monitoring, adaptive management, and selectively enhance the riparian, chaparral, oak woodland and other wildlife habitats within the park.
11. Continue to conduct sensitive species monitoring within Management Guild boundaries in accordance with approved MSCP protocols.
12. Conduct annual raptor and cliff-dwelling bird surveys in early spring to ascertain which species are utilizing cliff sites and known stick nests. Localized seasonal trail closures may be required in accordance with federal MBTA law and CA Code 3503.
13. Conduct annual focused exit count bat roost surveys during spring/summer, using visual and acoustic techniques simultaneously.
14. Conduct surveys for Giant Reed bi-annually (or six months after major flood events) to identify, map, and remove small infestations.
15. Coordinate with regional efforts (USGS Western Ecological Research Center) to refine and develop cowbird trapping optimization studies.
16. Plan and implement a cowbird trapping program along the San Diego River as deemed necessary by City biologists.
17. Re-survey all known populations of variegated dudleya to provide information for the development of additional management actions for the species.
18. Conduct Coastal Sage Scrub-Artemisia/Eriogonum adaptive management surveys within the Management Guild boundaries every three years.
19. Inventory and minimize impacts to all areas with biological crusts throughout the park and foster conservation and restoration research efforts with the local universities. Minimize impacts to areas with biological crusts during new trail construction or reroutes of existing trails.

20. Construct or repair and maintain wildlife compatible exclusionary fencing and signage around populations of San Diego thornmint, San Diego ambrosia, and Willowy monardella as necessary.
21. Conduct baseline surveys for priority plant species identified in the NRMP as part of the planning and design of any new or rerouted trails.
22. Implement management recommendations contained in the City of San Diego Vernal Pool Habitat Conservation Plan and Mitigation and Monitoring Program.
23. Provide a buffer of at least 25 feet from existing populations of San Diego ambrosia from all new or rerouted trails.
24. Provide a buffer of at least 50 feet from existing populations of Variegated dudleya from all new or rerouted trails.
25. Provide a buffer of at least 100 feet from existing populations of Willowy monardella from all new or rerouted trails.
26. Remove exotic weeds from existing populations of San Diego thornmint and San Diego ambrosia.
27. Remove exotic weeds from areas that historically contained San Diego thornmint.
28. Remove exotic weeds and dethatch vernal pools as necessary. Ensure that no piercing damage to hardpan/cliche layers occurs within vernal pools and their watersheds from construction fences staking or monitoring techniques (i.e. placement of transect posts or rain gauges).
29. Dethatch a five-foot radius around each known individual of Willowy monardella.
30. Coordinate with SDG&E to control erosional flows emanating from utility access roads within the watersheds of existing populations of Willowy monardella.
31. Perform an initial hydrological evaluation to identify erosive hydrological inputs into the watersheds of existing populations of Willowy monardella. The evaluation should include recommendations for appropriate erosion control.
32. Conduct pre-construction entrenchment surveys for trail projects within the contributing watersheds of existing populations of Willowy monardella.
33. Monitor Willowy monardella individuals and channel stability for a period of five-years after constructing trails within contributing watersheds to detect change as a result of trail construction and inform adaptive management.
34. Adaptively manage trails constructed within the contributing watersheds of Willowy monardella to limit anthropogenic affects to the hydrology of the watershed, which could include ultimate closure of the trail.

35. Install erosion control measures at identified anthropogenic hydrologic input areas within the contributing watersheds of the willowy monardella populations.
36. Treat and remove exotic species from the Coastal Cactus Wren Management Area (CWMA).
37. Thin woody and herbaceous vegetation as required to maintain suitable Coastal Cactus Wren habitat within the CWMA.
38. Enhance and expand cacti distribution within the CWMA.
39. Create and implement a San Diego fairy shrimp egg/cyst collection program and inoculation plan.
40. Expand populations of focal species, including San Diego button celery, within historical distributions within the park.
41. Install exclusionary signage with specific reference to rock climbing restrictions and enforcement at access points to, and at all cliff bases.
42. Expand patrols to include randomly scheduled binocular sweeps where rock climbing is prohibited to target unauthorized recreational access. Violations should be tracked to inform adaptive management actions.

### **g. Recreation Recommendations**

1. Comply with the City's current Trail Policies and Standards per the current City of San Diego Consultants Guide to Park Design and Development for all new and rerouted trails. Utilize other state and national sustainable trail guidelines as supplements to the City's Standards.
2. Construct the majority of trails within the park as "primitive" trails as defined within the City's Trail Policies and Standards. Only those trails designated as multi-use or those with significant use levels should be "improved" to a wider width.
3. Collaborate with recognized user groups in the planning, design and implementation of new trails, trail reroutes, and trail closures throughout the park.
4. Periodically evaluate all existing trails for localized maintenance needs including, but not limited to: removing berms, installing or repairing grade dips or grade reversals, and gully repair.
5. Keep trails and crossings within the riparian corridors and drainages to a minimum.
6. Locate trails in the least sensitive areas and provide buffers as needed.
7. Place new trails and reroute existing trails outside of riparian buffer zones wherever practicable.
8. Construct and maintain trail crossings of creeks and drainages with puncheons and bridges whenever possible. On-grade dip crossings, when necessary, should be made with local rock to create a stable crossing.

9. Develop and implement a comprehensive Trail Use Survey program throughout the park to help improve management decisions related to trail usage, maintenance, and potential environmental impacts as funding allows.
10. Conduct a Trail Capacity Analysis based on the results of a Trail Use Survey, to determine use thresholds for various portions of the park and then establish ways to maintain usage below the thresholds (e.g. fund-raising runs and the main Cowles Mountain hiking trail) as funding allows.
11. Create and implement a policy to control the number and size of fundraising runs held within the park on a monthly or yearly basis to minimize environmental and public use impacts.
12. Support efforts to extend the San Diego River Pathway with identification markers through the park.
13. Support efforts to extend the Trans-County Trail through the park.
14. Support efforts to create a publicly accessible trail corridor (Stowe Trail) between Santee and Goodan Ranch Sycamore Canyon Preserve.

### **3.2.2.2 Area Policies**

#### **a. Lake Murray**

Figure 3-4 shows the planning recommendations for the Lake Murray area. The primary goals for the Lake Murray area are to protect the water quality of the reservoir; provide water-related recreation on and around the lake; provide focused recreational activities at the Lake Murray Community Park, Lake Murray Tennis Courts, and Mission Trails Golf Course; and provide a variety of sustainable trails that can accommodate the high number of recreational users while preserving natural and cultural resources.

The riparian corridor below the dam and sensitive species associated with the *Artemisia*-dominated coastal sage scrub association are priorities within the NRMP. Proposed improvements identified as potential subsequent projects focus on closing redundant and unauthorized trails, improving trail sustainability and user access.

The primary objectives are to improve the quality of water-related facilities; to protect the lake environment—especially the shoreline—from overuse congestion; to maintain existing water-oriented recreational activities; and to provide for recreational uses at the community park. No camping or other overnight activities are currently allowed or envisioned.

Planning Recommendations	
P1	Integrate best management practices for urban runoff, fertilizers and pesticides into the operations and management of the golf course when the golf course lease is renegotiated.
P2	Integrate management practices for invasive non-native plant control into the operations and management of the golf course with annual City Open Space staff inspections when the golf course lease is renegotiated.
P3	Should the City ever determine the golf course is no longer viable, an alternative concept would be to use the City owned existing turf and trees between Jackson Drive and Navajo Road for active and passive recreation, family and group picnicking with meandering trails, and a linear open play area connecting Lake Murray with Cowles Mountain. It should be noted that the City of San Diego PUD would need to be compensated for the conversion of the property to public parkland and would retain facility easements for the various utilities within the area.
P4	Should the City ever determine the golf course is no longer viable, an alternative concept would be to use the City owned land area southwest of Jackson Drive and immediately north of the Lake for a tree-canopied area for picnicking, small group day use, and open play in a protected lake environment. It should be noted that the City of San Diego PUD would need to be compensated for the conversion of the property to public parkland and would retain facility easements for the various utilities within the area.

Recreation Recommendations	
R1	Plan, design, and implement a new trail connection from the Del Cerro community to the western shoreline. The corridor shown would utilize an existing utility access road for about two-thirds the distance before new grading would be required to connect to the publicly open portion of the paved maintenance road. Coordination with City of San Diego PUD regarding proximity to the dam and compliance with MSCP guidelines will be required.
R2	Create an improved trail connection with the adjacent City of La Mesa Sunset Park.
R3	Reroute trails that are selected for continued use to ensure a safe and sustainable trail environment. Close and restore the remainder of the trails crisscrossing the southeast slope.
R4	Close and restore the hike-bike trail from the upper parking lot to the paved maintenance road along the edge of the lake.
R5	Close and restore the hike/bike trail located within sensitive habitat along the urban runoff diversion channel.

Management Recommendations	
M1	Continue maintaining the paved maintenance road along the edge of the lake for recreational use by pedestrians, cyclists, and skaters. This may require regular pavement patching and infrequent re-surfacing activities when the conditions of the road degrade to a point that compromises user safety.
M2	Conduct a study to determine the feasibility of re-striping the maintenance road along the edge of Lake Murray to improve the movement and safety of the multiple user groups utilizing the road.
M3	Continue to maintain and support grounds improvements at Alvarado Point, including the picnic areas, concessions facilities, pathways and parking lots to ensure they are safe, accessible and environmentally compatible.
M4	Continue to maintain and support grounds improvements at the ten tennis courts in partnership with the Lake Murray Tennis Club or another non-profit for the fee-based usage of the courts to ensure they are safe, accessible and environmentally compatible.
M5	Continue to maintain and support grounds improvements at the community park, including the dedicated sports fields, mixed-use turf areas, concessions stand, comfort station, playground, and parking lots to ensure they are safe, accessible and environmentally compatible.
M6	Continue to maintain the urban runoff diversion channel around the lake and look for opportunities to improve the water quality within the channel before it is discharged downstream of the dam.
M7	Continue to maintain the utility access roads and look for opportunities to lessen their gradients and correct fall-line conditions, both of which contribute to erosion and sedimentation down-slope. Install signage and fencing as required to prevent unauthorized trail use.
M8	Monitor the perimeter of the Lake Murray area for private property encroachments and coordinate enforcement actions to remove the encroachment.

Facility Recommendations	
F1	Develop a group picnic area with several small or one large shade structure and picnic tables in the undeveloped area south of the ball fields between Del Cerro Bay and Cowles Bay with primary access from the community park per the approved General Development Plan.
F2	Plant the disturbed area south of the ball field on San Carlos point with native plants and incorporate a few small shade structures, picnic tables and benches accessed from the paved maintenance road per the approved General Development Plan.

Habitat/Species Recommendations	
H1	Protect the sensitive plants in the natural area between the paved maintenance road and the dirt access road along the urban runoff diversion channel.
H2	Remove dead or diseased eucalyptus trees and eucalyptus trees with calipers less than 4-inches at 4-feet above ground and replace with native tree species per MSCP directive.
H3	Conduct habitat restoration or revegetation activities within disturbed areas as needed.

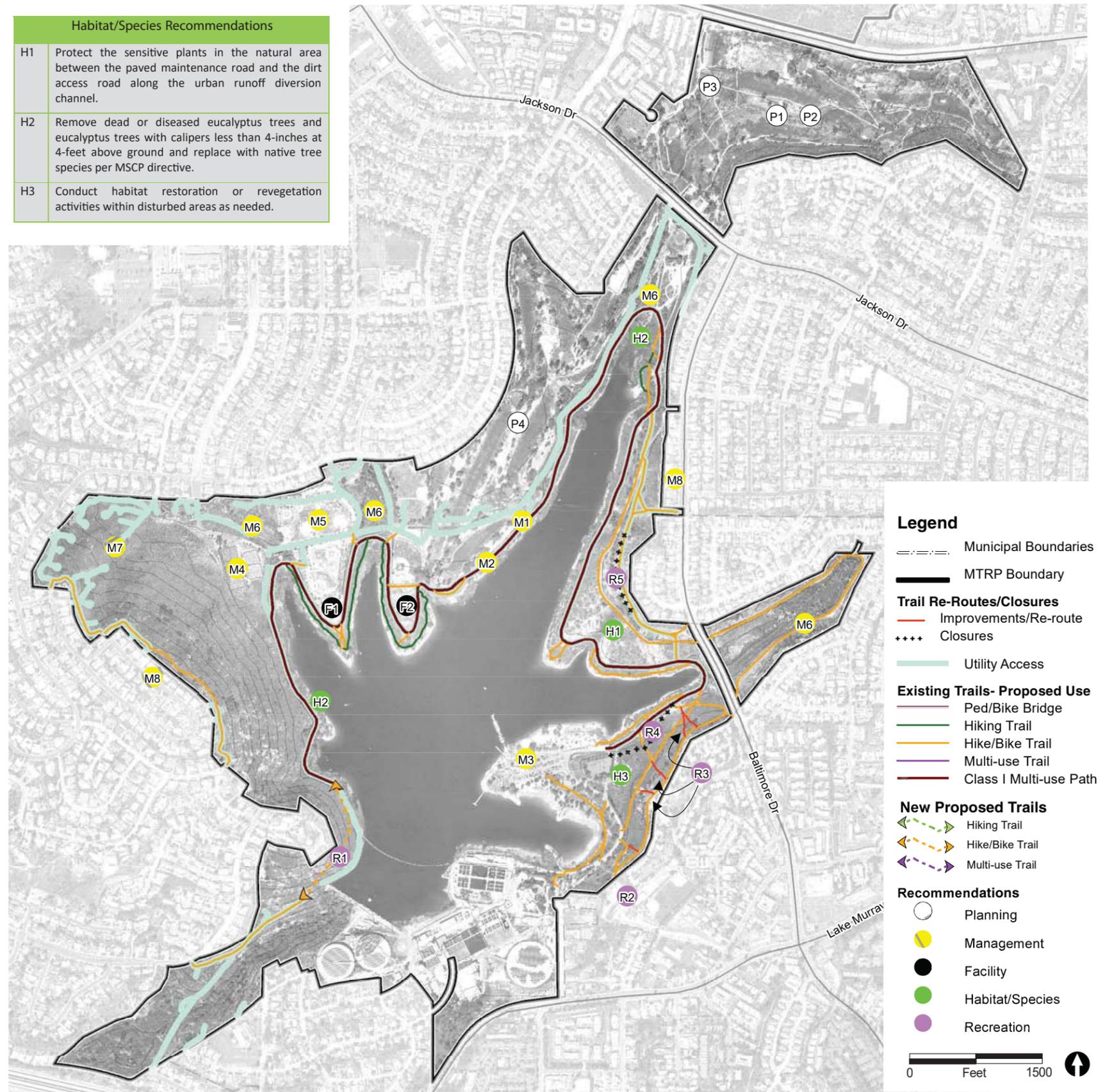


FIGURE 3-4  
Lake Murray Area Planning Recommendations

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## **b. Cowles Mountain**

Figure 3-5 shows the planning recommendations for the Cowles Mountain area. The importance of Cowles Mountain as an open space backdrop for urban San Diego is reflected in the use concept. The area is primarily a place for passive daytime activities that do not require extensive landform changes and expensive infrastructure and facilities. The trails and service road on the mountain need rehabilitation and erosion protection. New trails, rest stops, and overlooks need to be introduced selectively. No camping or other overnight activities are planned because of the area's urban edge and high visibility.

The goal for this area is to provide a variety of sustainable trail facilities that can accommodate the high number of recreational users, while preserving natural and cultural resources. The riparian corridor and *Artemisia*-dominated coastal sage scrub association near Big Rock Park are priorities within the NRMP, as are the bat roosts along the western face of Pyles Peak. Proposed improvements identified as potential subsequent projects focus on closing redundant and informal trails, improving trail sustainability and access, and creating the opportunity for loop or destination trails.

The original vision for trails within the area was for a series of loop trails: one on the southwest slope; one on the southeast slope; and one on the northeast slope. While the interior portions of many of these have been constructed, only a reduced version of the northeast loop currently exists. Creating a longer loop trail on the northeast slope would fulfill this vision and help reduce the user congestion and potential safety concerns related to the mixed heavy bidirectional (slow uphill versus fast downhill) use of the service road and Big Rock trails by both cyclists and pedestrians.

Maintaining the integrity of Cowles Mountain would require sensitive trail location and design to avoid visual scars. It would also require the restoration and revegetation of areas already disturbed. Other considerations include providing shade for the summer user and designing these park elements so that they are unobtrusive.

The existing shared City and County of San Diego communications facilities (receiving/transmitting antennas), service road, and related compound near the summit of Cowles Mountain present a unique challenge. Aesthetically, they should be relocated outside the Park. Realistically, local agreements make this impractical. Additionally, approximately 1,400 acres of Cowles Mountain is jointly owned by the City and the County of San Diego, while a portion is owned by the County of San Diego only as shown in Figure 2-5a.

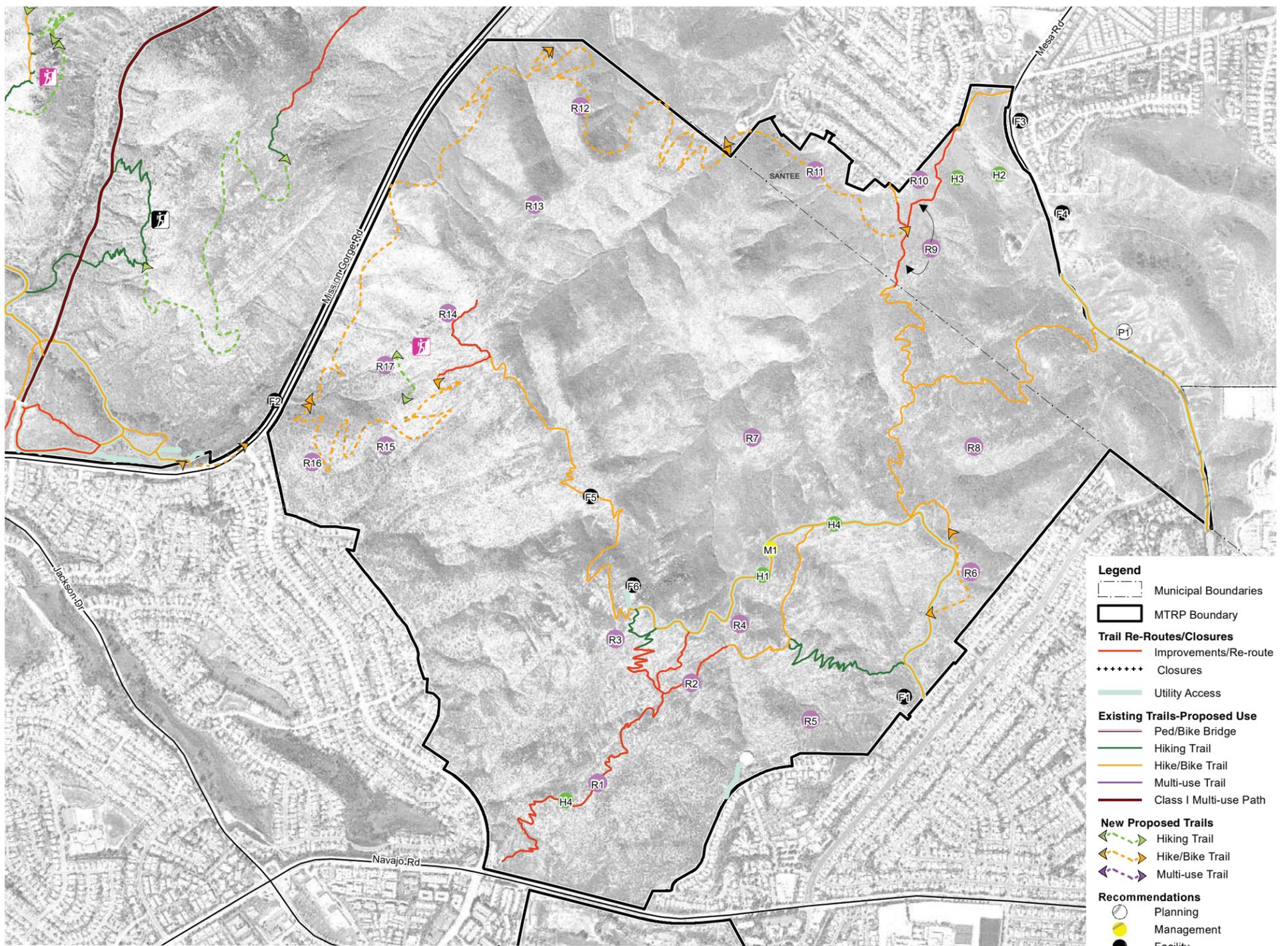
## **c. Mission Gorge**

Figure 3-6 shows the planning recommendations for the Mission Gorge area. The goal for the Mission Gorge area is to provide a variety of sustainable trails and other park amenities that can accommodate the high number of visitors radiating out from the Visitor and Interpretive Center while preserving natural and cultural resources. The riparian corridor along the river, the San Diego ambrosia near the Kumeyaay Lake Campground, and the raptor and bat roosts on Kwaay Paay are priorities within the NRMP. Proposed improvements identified as potential subsequent projects focus on closing redundant and informal trails, improving trail sustainability, and user access.

Recreation Recommendations	
R1	Implement localized trail improvements to create a more accessible, maintainable and environmentally sensitive trail from the existing Cowles Mountain staging area to the summit. If localized improvements prove inadequate, then a full trail reroute should be evaluated.
R2	Assess a section of the Barker Way trail for localized improvements to address trail steepness and erosion issues. If localized improvements are inadequate or infeasible, then this section of trail should be rerouted.
R3	Develop and implement a public access boundary with fencing and signage at the top of Cowles Mountain to reduce habitat impacts. Restore native habitats outside the defined boundary.
R4	Close and restore the existing hike/bike and unauthorized user created trails extending from the Cowles Mountain service road to the Barker Way Trail.
R5	Close and restore the hike/bike trail extending from Wingspan Drive to the Barker Way Trail.
R6	Construct a new trail alternative to avoid a particularly steep section of the Cowles Mountain service road.
R7	Close and restore the existing hiking and unauthorized user created trail on the eastern slope of Pyles Peak.
R8	Close and restore a series of interconnected existing hiking trails on the eastern slope of Cowles Mountain. A portion of these trails are within the California gnatcatcher Critical Habitat designated by the USFWS.
R9	Assess a section of the Big Rock trail for localized improvements to address trail steepness and erosion issues. If localized improvements are inadequate or infeasible, then this section of trail should be rerouted.
R10	Close and restore the existing hiking trail located immediately behind the homes along Big Rock Road.
R11	Construct a new trail connection from the Padre Dam water tank to Big Rock to create a portion of a large loop on the east side of Pyles Peak and north side of Cowles Mountain.
R12	Construct a new trail connection from the Padre Dam water tank to the staging area in CM-F2 to create a portion of a large loop on the east side of Pyles Peak and north side of Cowles Mountain.
R13	Close and restore an existing hiking trail along the ridge north of Pyles Peak.
R14	Assess a section of the existing Pyles Peak trail for localized improvements to address trail steepness and erosion issues. In-trail grade reversals and reestablishment of outslope should be adequate solutions.
R15	Close and restore the existing hiking trail from Pyles Peak down to Golf Crest Drive.
R16	If the staging area in CM-F2 is implemented, construct a new connector trail from it up to the existing Pyles Peak trail.
R17	If the staging area in CM-F2 and the trail in CM-R12 are implemented, evaluate providing rock climbing access to the western face of Pyles Peak by constructing a new trail from the existing Pyles Peak trail. Impacts to bat roosts will need to be evaluated; signage and access controls will be required at the top of the climbing faces to control unauthorized access to the top of Pyles Peak; and an emergency response plan will need to be coordinated with San Diego Fire and Rescue.

Facility Recommendations	
F1	Plan, design and implement an off-street gravel or decomposed granite surfaced parking area with street improvements that comply with public road standards as applicable, at the Barker Way entrance to reduce some of the parking demand on the local residential streets and provide a more formal trailhead and potential for a maintainable comfort station. Ensure that temporary construction impacts associated with parking lot improvements do not affect adjacent neighbors and park users.
F2	Collaborate with SDCWA to plan, design and implement an off-street gravel or decomposed granite surfaced parking area just north of Golfcrest Drive off Mission Gorge Road adjacent to the SDCWA pipeline access portal. This will provide northerly access (CM-R15) to the Pyles Peak trail and a potential rock climbing area (CM-R17). Access from Mission Gorge Road would be a right turn in and right turn out only. Ensure that temporary construction impacts associated with parking lot improvements do not affect adjacent neighbors and park users.
F3	Plan, design and implement improvements in collaboration with the City of Santee to the disturbed shoulder within the public right of way along Mesa Road near Big Rock Park to provide additional parking spaces and a linear bike skills area. Ensure that temporary construction impacts associated with parking lot improvements do not affect adjacent neighbors and park users.
F4	Relocate the parking at the south end of Mesa Road as part of CM-F3 and revegetate the existing parking area while maintaining the trailhead kiosk and gate.
F5	Add interpretive signage along the ridgeline trail from Cowles to Pyles Peak, orienting the public to the visual panorama and explain how a view can be interpreted from different "perspectives" – for example, as an active city full of different uses, nodes, and landmarks linked by circulation; as a landmark resulting from long-term geological and hydrological processes; and as the historical accumulation of artifacts tracing man's interaction with his environment.
F6	When funds are available, and technological advances allow for minimization of equipment, the City and County antennas should be modified for a less visible profile, or be removed. Any modifications to the facilities will be coordinated through the City's Deputy Director of Communication and Networks and the County's Manager of Microwave/Radio Communications.

Habitat/Species Recommendations	
H1	Reduce the width of sections of the Cowles Mountain service road that have become excessively wide down to 14 feet per City Trail standards.
H2	Restore coastal sage scrub and riparian habitats with the area disturbed by former mineral extraction activities along Mesa Road.
H3	Allow the transplant of San Diego ambrosia from areas outside MTRP to the identified restoration site. Construct and maintain wildlife compatible exclusionary fencing and signage as required.
H4	Conduct habitat restoration or revegetation activities within disturbed areas.



Planning Recommendation	
P1	Incorporate pedestrian and/or bicycle facilities and landscape the edge of Mesa Road bordering the park with native plantings if it is extended south to connect with Lake Murray Boulevard. Existing park improvements within the area should be replaced if impacted by the project.

Management Recommendation	
M1	Continue to periodically maintain the Cowles Mountain service road. Look for opportunities for localized re-grading to remove inside drainage swales and remove berms at the outside edge to promote sheet flow of run-off.

\*The City of San Diego will be responsible for all improvements within the Cowles Mountain area as identified in the Master Plan and per the Joint Powers Agreement with the County of San Diego Regarding the Operation and Maintenance of Tijuana River Valley Park and Mission Trails Regional Park. Any recreational amenity and its management, or subsequent projects proposed within the County owned Cowles Mountain area will require analysis and review by the County on a project by project basis.

**Legend**

- Municipal Boundaries
- MTRP Boundary
- Trail Re-Routes/Closures**
  - Improvements/Re-route
  - Closures
  - Utility Access
- Existing Trails-Proposed Use**
  - Ped/Bike Bridge
  - Hiking Trail
  - Hike/Bike Trail
  - Multi-use Trail
  - Class I Multi-use Path
- New Proposed Trails**
  - Hiking Trail
  - Hike/Bike Trail
  - Multi-use Trail
- Recommendations**
  - Planning
  - Management
  - Facility
  - Habitat/Species
  - Recreation
- Rock Climbing**
  - Existing
  - Proposed

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**FIGURE 3-5**  
Cowles Mountain Area Planning Recommendations

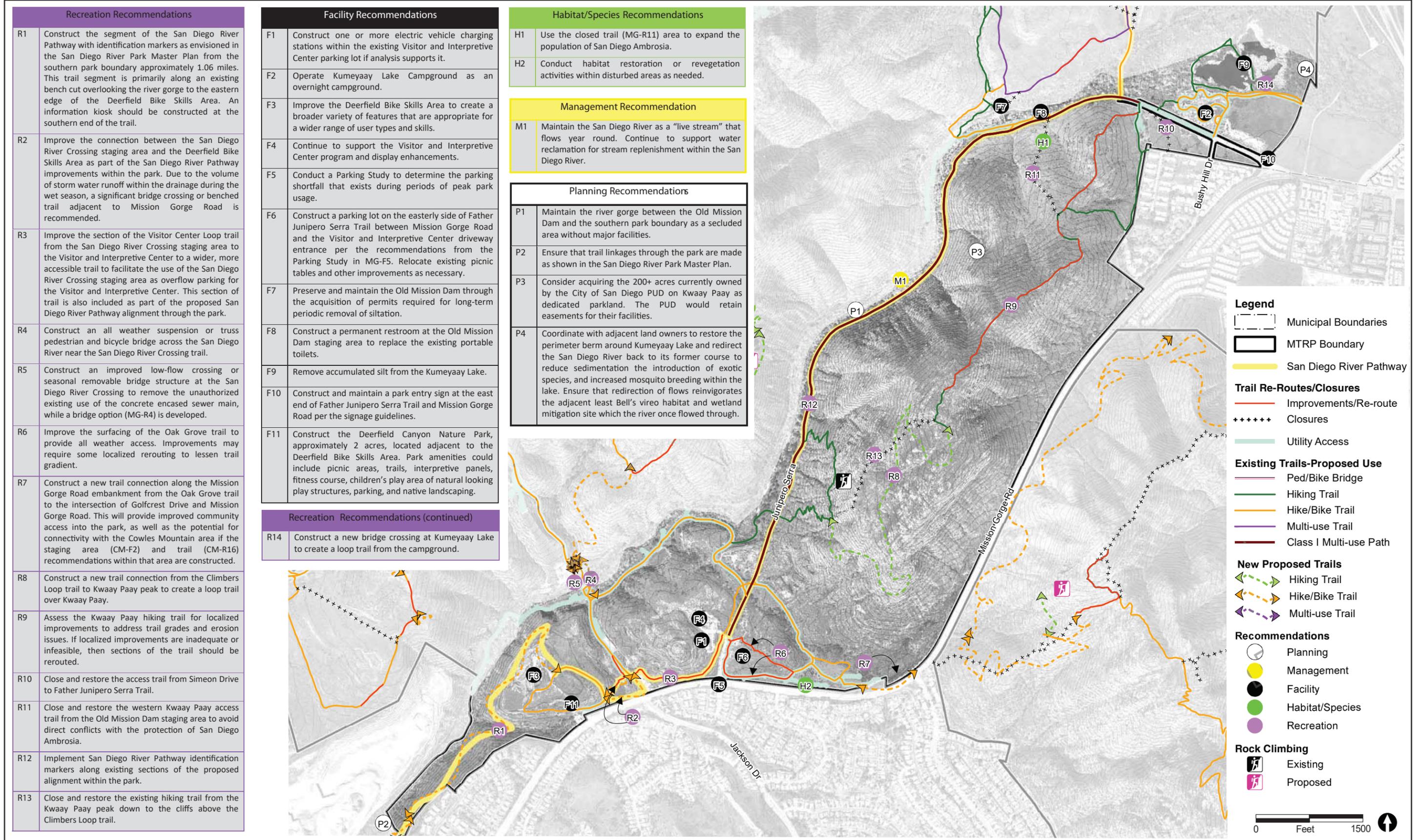


FIGURE 3-6  
Mission Gorge Area Planning Recommendations

Uses within the Mission Gorge area would continue to balance preservation, interpretation, and recreational use so they complement one another. Cultural sites and wildlife habitats are to be respected, while providing facilities that encourage people to enjoy the area. By fostering a slower-paced experience by foot or bicycle, the visitor will be encouraged to learn about the site, its history and environmental values, and to see how it changes with the seasons and over the years. The Visitor and Interpretive Center and the multi-use path along Father Junipero Serra Road are two of the most utilized portions of the Park by out of town visitors. The interpretive and educational programs centered on the Visitor and Interpretive Center would continue to be a focal point for this area of the Park. Implementation of the San Diego River Park Master Plan would reinforce the regional recreational use of this area.

The river bank below and roughly parallel to Father Junipero Serra Trail would remain closed to protect nesting habitat for the least Bell's vireo, potential nesting habitat for the southwestern willow flycatcher, and cultural resources within the floodplain of the river. The riparian corridor within the bottom of the river gorge, west of the San Diego River Crossing Trail, would remain closed to the public to protect nesting habitat for the least Bell's vireo, potential nesting habitat for the southwestern willow flycatcher, significant roosts of the pocketed free-tailed bat, and cultural resources within the floodplain of the river.

#### **d. Fortuna Mountain**

Figure 3-7 shows the planning recommendations for the Fortuna Mountain area. The Fortuna Mountain area would provide a variety of sustainable trails that create loops of varying length and difficulty to accommodate a wide range of recreational users while preserving natural and cultural resources. This area is the largest of the Park and contains the largest number of existing roads and trails. The riparian corridors associated with Suycott Wash, Oak Canyon, and the San Diego River are priorities within the NRMP, as are the San Diego ambrosia near the Kumeyaay Lake Campground, the bat roosts on South Fortuna Mountain and at the old quarries, the *Artemisia-Eriogonum* association of coastal sage scrub, and the clay lens and associated sensitive species and vernal pools along the Tierrasanta ridgeline.

Proposed improvements identified as potential subsequent projects focus on closing redundant and informal trails, improving trail sustainability and user access. Recommendations contained in the MPU reflect both the opportunities and challenges creating a safe and sustainable network of recreational trails. The area also contains a portion of the San Diego River Trail.

The basic planning concept balances preservation, interpretation, and recreational trail use so they complement one another. Cultural sites and wildlife habitats are to be respected, while providing passive recreational opportunities. Rock climbing access to the old quarry cliff faces along the San Diego River, both up and down stream of the San Diego River Crossing Trail, would remain closed to protect nesting habitat for the least Bell's vireo. These areas are also identified as potential nesting habitat for the southwestern willow flycatcher, and are significant roosting sites for the state sensitive pocketed free-tailed bat, which is sensitive to human encroachment.

Recreation Recommendations	
R1	Assess a section of the southeastern portion of the Quarry Loop trail for localized improvements to address steepness and erosion issues. Reroute this section of access road if localized improvements are inadequate or infeasible.
R2	Close a couple of sections of old road bed along the northern edge of the Old Quarry.
R3	Assess a section of the eastern portion of the Quarry Loop trail for localized improvements to address steepness and erosion issues. Reroute this section of access road if localized improvements are inadequate or infeasible.
R4	Provide a new section of hike/bike trail to redirect users away from the nearby vernal pool.
R5	Provide a new overlook of the San Diego River.
R6	Close and restore several small sections of existing hike/bike trails or abandoned access roads.
R7	Assess a section of hike/bike trail for localized improvements to address steepness and erosion issues, and potential conflicts with San Diego thornmint habitat. Reroute this section of trail if localized improvements are inadequate or infeasible. Install wildlife compatible fencing and signage adjacent to the existing and potential San Diego thornmint habitat.
R8	Provide a new section of hike/bike trail as an alternate recreational trail connection to Sycott Wash and South Fortuna to avoid a 0.48 mile section of utility access road that sustains 15-30 percent gradients. The trail would begin just north of the San Diego River Crossing and proceed north along the eastern slope above the Sycott drainage and connect to the existing South Fortuna trail. Planning and design of the trail will need to address access concerns related to the Visitor Center Loop quarry immediately to the east and the drainage to the west, both of which contain sensitive resources.
R9	Assess a section of the southern portion of the South Fortuna hiking trail for localized improvements to address steepness and erosion issues. Reroute this section of access road if localized improvements are inadequate or infeasible.
R10	Provide rock climbing access to the eastern face of South Fortuna by constructing a new hiking loop trail from the existing South Fortuna trail. Planning and design of this trail will need to address proximity to bat/raptor roosts, safety concerns relative to falling rocks, and emergency response concerns that include improvements to vehicular access to the area and/or the designation of a helicopter landing area.
R11	Assess a section of the Sycott Valley South Trail for localized improvements to address steepness and erosion issues. Reroute the trail if localized improvements are inadequate or infeasible.
R12	Assess a section of the Sycott Valley trail for localized improvements to reduce the number of creek crossings and erosion issues. Reroute the trail if localized improvements are inadequate or infeasible.
R13	Close and restore a section of old redundant utility access road.
R14	Close and restore a section of redundant park access road.
R15	Close and restore a section of redundant park access road.
R16	Assess a section of the Rim trail for localized improvements to reduce or eliminate encroachment on adjacent vernal pools and watersheds. Reroute the trail if localized improvements are inadequate or infeasible.
R17	Close and restore a section of redundant park access road.
R18	Assess a section of hike/bike trail for localized improvements to address erosion issues.

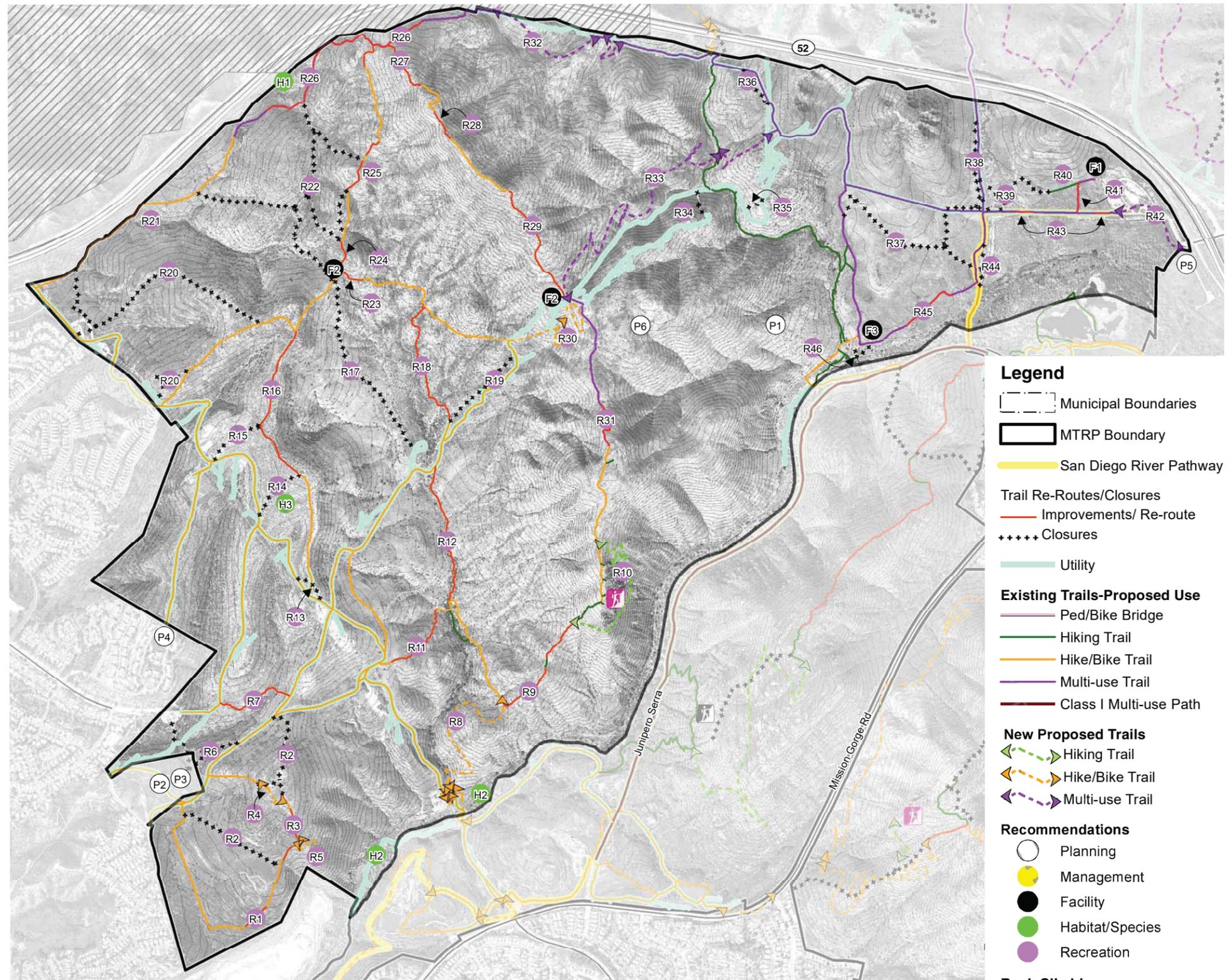
Planning Recommendations	
P1	Consider acquiring the 200+ acres currently owned by the City of San Diego PUD on the eastern slopes of South Fortuna as dedicated parkland. The Department would retain easements for their facilities.
P2	Pursue the acquisition of the San Diego Unified School District parcel for park use or a public access easement.
P3	When the adjacent Camp Elliott Park and San Diego Unified School District parcels (outside MTRP) are developed, construct a trailhead and staging facility consistent with the Mission Trails Design District Ordinance and consider a boundary adjustment to MTRP.
P4	Pursue the acquisition of a public access easement within the SDCWA easement and the Villa Dominique Viewhome Home Owners Association to ensure legal access to the existing ridgeline trail.
P5	Ensure that trail linkages along the length of the park are made as shown in the San Diego River Park Master Plan.
P6	The eastern slope of Fortuna Mountain should remain in its near-natural state, accommodating only trails coming over the ridgeline.

Facility Recommendations	
F1	Construct the last phase of improvements at the East Fortuna Staging Area per Site Development Permit #40-0524 which includes an administrative/maintenance building and a large covered group picnic area at the East Fortuna Staging Area.
F2	Consider providing fire resistant shade structures consistent with the MTRP Design Guidelines (Appendix G) at key interior locations within the Fortuna Mountain area where appropriate.
F3	Reconstruct the Old Mission Dam overlook on the northern river bank. Consider developing the overlook as a deck structure to prevent access from the downslope area.

Habitat/Species Recommendations	
H1	Collaborate with the appropriate parties as needed to develop improved surveillance and enforcement mechanisms to prevent recreational usage of the wildlife tunnel under SR-52, which is impacting its use by wildlife and contributing to trespass on MCAS Miramar.
H2	Install and maintain 'Sensitive Habitat Keep Out' signage along the trails nearest the Southwest Boundary Quarry and the Visitor Center Loop Quarry to protect the significant bat roosts that exist in these locations and issue warnings or citations to all violators.
H3	Map the spatial extents of biological crusts within the Tierrasanta Clay Ridge management area.
H4	Conduct habitat restoration and revegetation activities within disturbed areas as needed.

\* General recommendation for plan area

No specific management recommendations unique to the Fortuna Mountain Area were identified during development of the MPU.



**Legend**

- Municipal Boundaries
- MTRP Boundary
- San Diego River Pathway
- Trail Re-Routes/Closures
  - Improvements/ Re-route
  - Closures
- Utility
- Existing Trails-Proposed Use
  - Ped/Bike Bridge
  - Hiking Trail
  - Hike/Bike Trail
  - Multi-use Trail
  - Class I Multi-use Path
- New Proposed Trails
  - Hiking Trail
  - Hike/Bike Trail
  - Multi-use Trail
- Recommendations
  - Planning
  - Management
  - Facility
  - Habitat/Species
  - Recreation
- Rock Climbing
  - Existing
  - Proposed

0 Feet 1500

FIGURE 3-7a  
Fortuna Mountain Area Planning Recommendations

Recreation Recommendations (continued)	
R19	Close and restore a section of redundant park access road.
R20	Close and restore sections of redundant park access road, steep and eroding access road, and existing hike/bike trails within Shepherd Canyon.
R21	Assess a section of the North Perimeter trail within Shepherd Canyon for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R22	Close and restore a redundant, steep and eroding sections of park access road and existing hike/bike trails between the Rim Trail and the North Perimeter Trail.
R23	Assess a section of the Suycott Valley Bypass Trail for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R24	Assess a section of the Rim trail for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R25	Assess a section of the Rim trail for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R26	Assess a section of the North Perimeter trail for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R27	Assess a section of the North Fortuna trail for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R28	Assess a section of the North Fortuna trail for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R29	Assess a section of the North Fortuna trail for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R30	Construct a new section of hike/bike trail to provide an alternate recreational trail connection to the Fortuna Saddle on the south side to replace a 0.22 mile utility access road that sustains greater than 20 percent gradients, with sections at 40 percent. The trail would begin at the utility access road where an unnamed trail connects from the west and proceeds up to the northeast along the western slope of South Fortuna to the saddle.
R31	Assess a section of the South Fortuna trail for localized improvements to address steepness and erosion issues. Reroute this section of trail if localized improvements are inadequate or infeasible.
R32	Construct a new section of multi-use trail to bypass two extremely steep sections of utility access road along the North Perimeter trail.
R33	Construct a new section of multi-use trail to bypass the existing utility access up to the Fortuna Saddle.
R34	Close and restore a section of old utility access road that is no longer used, extremely steep, and eroding.
R35	Close and restore a section of old utility access road that is no longer used, extremely steep, and eroding.
R36	Close and restore a section of redundant park access road.
R37	Close and restore a redundant section of park access road within the Grasslands area.
R38	Close and restore the existing hike/bike trail that parallels the utility access road into Spring Canyon and a section of redundant utility access road. The access road into Spring Canyon will need to be regraded to restore sheet flow drainage across the road to prevent the muddy conditions that contributed to the formation of the unauthorized trail.
R39	Close and restore a redundant section of park access road within the Grasslands area that crosses wetland habitats.
R40	Utilize the vernal pool along the trail from the East Fortuna Staging Area as an educational and interpretive resource about the ecology of vernal pools. Develop interpretive signage and a brochure/pamphlet for distribution at the Visitor Center. Realign the existing fencing outside of the vernal pool and restore the impacted area.
R41	Improve as a multi-use trail a section of unauthorized user created trail to connect the northern access route from the East Fortuna Staging Area to the southern utility access road.
R42	Construct a new multi-use path from the utility access road gate east along the edge of the paved entrance road to the East Fortuna Staging Area. This path would be part of the San Diego River Pathway as envisioned in the San Diego River Park Master Plan and should be implemented once plans for the eastern extension of the Trail outside the park have been solidified. An information kiosk should be constructed at the east end of the path.
R43	Assess two sections of the utility access road for localized improvements to improve the hydrologic connectivity of the wetland and floodplain areas it crosses while providing a safer surface for recreational users.
R44	Close and restore an unauthorized user created trail within the Grasslands area that encroaches on San Diego Ambrosia habitat.
R45	Assess a section of the Grasslands Loop trail for reroute to prevent degradation to nearby sensitive resources.
R46	Close and restore the trails from the dam up to the overlook and add wildlife compatible fencing and signage to direct hikers to use the approved trail access.

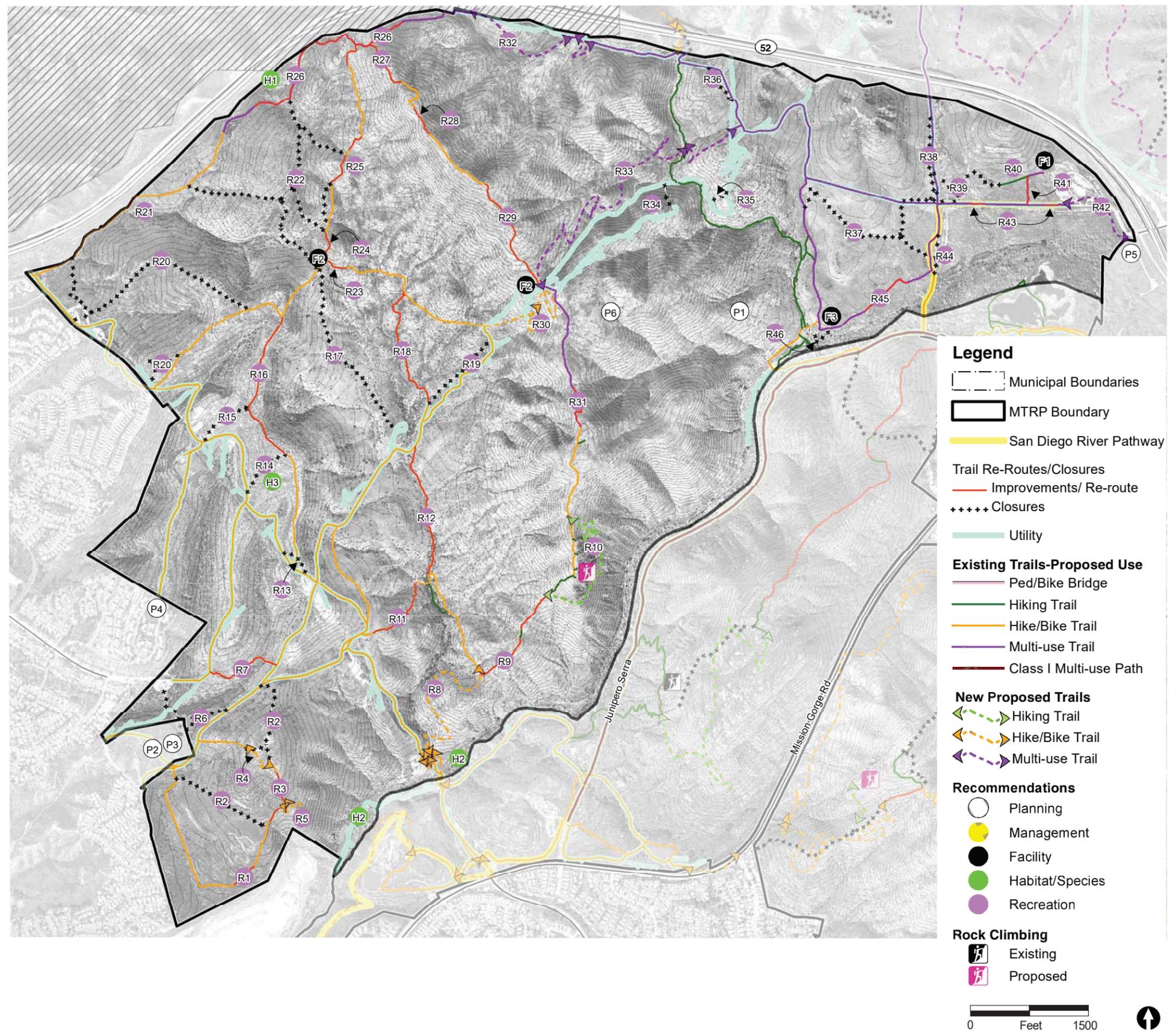


FIGURE 3-7b  
Fortuna Mountain Area Planning Recommendations

### **e. East Elliott**

Figure 3-8 shows the planning recommendations for the East Elliott area. Habitat and species preservation are the driving force behind the acquisition of lands within the East Elliott area. Public access and recreational use would be viewed as secondary uses. Recreational trails are identified as compatible uses within the MSCP as long as they do not compromise the long-term ecological values of the area. The riparian corridors and the willow monardella habitat associated with Oak Canyon and Spring Canyon are priorities within the NRMP, as are the clay lens along the ridgelines and the *Artemisia-Eriogonum* dominated coastal sage scrub that occurs within the eastern half of the area. Planning and implementing ecologically appropriate recreational trail loops is the focus of park planning efforts within this area.

Multiple length trail loops are a key planning concept for this area to discourage continued recreational trespass into MCAS Miramar that is prevalent within Oak and Spring Canyons. Providing northern connectivity to the County of San Diego's proposed Stowe Trail corridor that would connect northward to Goodan Ranch, Sycamore Canyon Preserve, outside of the MCAS Miramar installation boundary, is also a long-term priority.

The East Elliott area currently contains several utility access roads and many unauthorized user-created trails. The utility access roads are primarily located along the ridgelines and contain some extremely steep sections that require regular maintenance to address erosion that make these roads unsuitable as recreational trails. Many of the user-created trails are well constructed narrow contour and single-track trails. However, a majority of these trails are within natural drainages that contain the more sensitive natural resources within the area. As such, some are recommended for closure, while others are recommended for localized reroutes.

The current patchwork of public and private ownership throughout the East Elliott area makes implementation of many of the MPU recommendations difficult as existing and proposed trails cross both public and private property. Privately owned parcels would either need to be acquired or public access easements granted before those trails can be formally opened to the public for use.

### **f. West Sycamore**

Figure 3-9 shows the planning recommendations for the West Sycamore area. Habitat and species preservation were the driving force behind the acquisition of the West Sycamore area. Public access and recreational use would be viewed as secondary uses. Recreational trails are identified as compatible uses within the MSCP, as long as they do not compromise the long-term ecological values of the area. Planning and implementing ecologically appropriate recreational trail loops is the focus of Park planning efforts within this area, as is connecting to adjacent County trail systems.

Multiple length trail loops are a key planning concept for this area to discourage continued recreational trespass into MCAS Miramar that is currently highly prevalent within West Sycamore Canyon. Multiple connections with Goodan Ranch, Sycamore Canyon Preserve, and Beeler Canyon would significantly contribute to this concept. Lastly, providing east-west connectivity for the County of San Diego's Trans-County Trail is a priority.

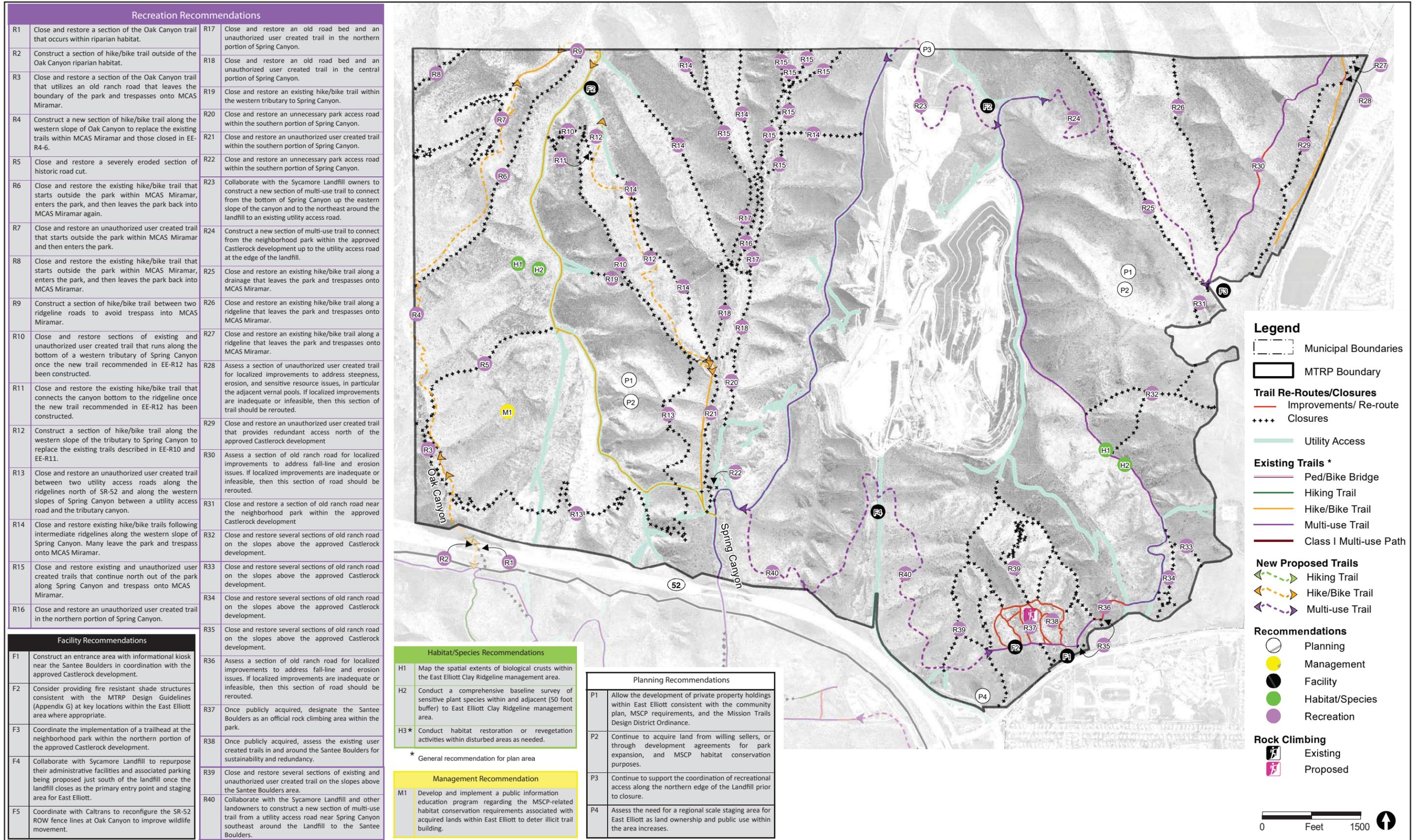


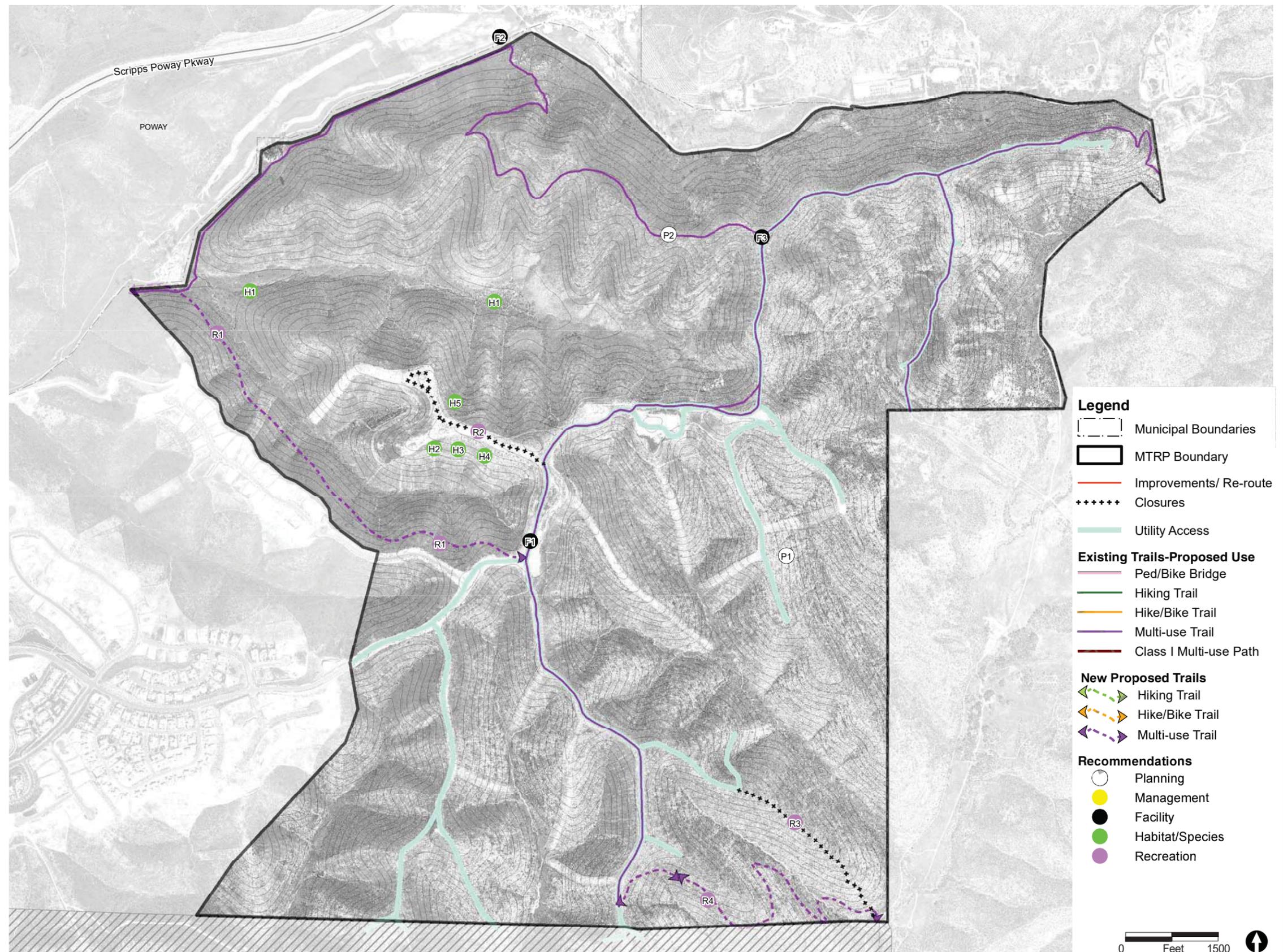
FIGURE 3-8  
East Elliott Area Planning Recommendations

Recreation Recommendations	
R1	Construct a new section of multi-use trail from the proposed staging area to the west down into Beeler Canyon.
R2	Close and restore a section of existing park access road that is no longer necessary.
R3	Close and restore a section of existing hike/bike trail.
R4	Collaborate with the County of San Diego to construct a new section of multi-use trail from West Sycamore down into the Goodan Ranch Sycamore Canyon Preserve.

Planning Recommendations	
P1	The eastern slopes of West Sycamore should remain in their near-natural state, due to the sensitive visual character of the area.
P2	Continue to coordinate with the County of San Diego on the implementation of the Trans-County Trail and designate one or more sections of trail through the West Sycamore area as required to provide east-west connectivity

Facility Recommendations	
F1	Provide a restroom, ranger station, hitching posts, shade structure, and picnic tables at the West Sycamore staging area.
F2	Acquire an access easement near the intersection of Beeler Canyon Road and Sycamore Canyon Road and construct a trailhead with informational kiosk.
F3	Consider providing fire resistant shade structures consistent with the MTRP Design Guidelines (Appendix G) at a central location within the West Sycamore area where appropriate.

Habitat/Species Recommendations	
H1	Plan and implement a removal and control program for Artichoke Thistle.
H2	Manage the density of woody and herbaceous vegetation within Coastal Cactus Wren management areas.
H3	Remove exotic weeds from the Coastal Cactus Wren management areas.
H4	Transplant prickly pear and cholla cactus pads into the Coastal Cactus Wren management area to increase the density and quality of cactus wren habitat.
H5	Conduct habitat restoration or revegetation activities within disturbed areas as needed.



No specific management recommendations unique to the West Sycamore Area were identified during development of the MPU.

FIGURE 3-9  
West Sycamore Area Planning Recommendations

The West Sycamore area currently contains several utility access roads, a few old ranch roads and fire breaks, and several miles of newly constructed trails. The utility access roads are primarily located along the ridgelines and are being jointly used as recreational trails.

### **3.2.3 Natural Resources Management Plan**

The NRMP was prepared in order to fulfill the City's MSCP requirement to develop Area-Specific Management Directives (ASMDs) for the protection of natural resources at the Park. The Park is a core biological resource area and regional wildlife corridor within the MSCP's MHPA. The NRMP is analyzed in detail in Section 5.4, Biological Resources; however, an overview is provided below.

#### **3.2.3.1 Objectives**

The specific objectives of the NRMP are to:

- Update sensitive species and habitat mapping.
- Develop management guilds (management units based on habitat groupings with similar life-history requirements and/or threats) for groups of species and/or habitats.
- Identify and prioritize threats to sensitive species and habitats.
- Document current understanding of natural systems and species life history requirements using conceptual models.
- Develop conservation and enhancement goals for individual populations/habitats and/or management guilds based on MSCP conditions of coverage.
- Develop specific management actions (e.g., ASMDs) within an adaptive management framework to address the identified threats and ensure long-term, viable populations of these species within the Park.
- Develop protocols (e.g., data collection methods, success criteria) to evaluate adaptive management techniques and projects proposed in this plan.

#### **3.2.3.2 Adaptive Management**

As previously detailed, the NRMP includes the existing biological conditions of the Park in order to inform the adaptive management recommendations. The NRMP then developed an adaptive management approach, which is a systematic process for managing natural resources in the face of uncertainty (i.e., when best management practices are lacking) and continually improving management policies and practices by learning from the outcomes of operational procedures. If operational procedures are not meeting management goals, methods are adjusted until they are achieved. Adaptive management of the Park consists of the following key elements: establishment of management goals, identification of threats, assessment and selection of techniques,

implementation of management actions, monitoring/assessment of management action effects, and periodic review of management goals and restoration methods.

### 3.2.3.3 Management Prioritization

A prioritization system for management actions was developed for sensitive species and habitats (i.e., ecological guilds) at the Park using survey data, information gleaned from a thorough literature review, and the combined knowledge of City Biologists and Park Rangers, members of the Institute of Ecological Monitoring and Management at SDSU, and RECON biologists.

The sensitive species and ecological guilds were prioritized using the following criteria:

1. Region-wide threat level (e.g., habitat loss, urban runoff, drought, and utility/service lines)
2. Preserve threat level (e.g., human use of reserves, invasive/exotic species, altered fire regime, altered hydrology, habitat fragmentation)
3. Ability to effectively manage threats at the Park

Using this criteria, the priority sensitive species identified by the NRMP are:

- San Diego thornmint
- San Diego ambrosia
- variegated dudleya
- willowy monardella
- coastal cactus wren

The priority management ecological guilds identified by the NRMP are:

- river terrace grasslands
- Tierrasanta clay ridges
- East Elliott clay ridgelines
- riparian woodlands
- cliffs and rock outcrops
- *Artemisia*-dominated coastal sage scrub

The NRMP provides detailed descriptions of each of these species and guilds, anthropogenic threats, management goals and objectives, monitoring actions, and minimization measures to employ during management and monitoring in order to avoid incidental impacts.

## 3.3 Project Implementation

### 3.3.1 Prioritization

Implementation of the actions and recommendations contained in the Plans would continue to require coordination between City of San Diego Park and Recreation Department Open Space Division, the Park's CAC and Task Force, other non-profit organizations, and interested stakeholders.

The order of implementation priorities for the park should generally be: (1) maintenance and repair of existing facilities and trails; (2) enhancement of existing facilities and trails; and (3) construction of new facilities, trails, and/or access to new areas within the Park. However, potential funding sources may alter the order of priorities.

The CAC would continue to identify and prioritize subsequent projects for development that are consistent with the MPU. Ad-hoc subcommittees, composed of CAC members, park rangers, City staff, and other interested stakeholders, would collaborate as appropriate to guide the recommendations of the Plans from concept through implementation. Recommendations for project implementation would continue to be made by the CAC and routed to the Task Force for final approval. Decisions of the Task Force are final unless City Council action is required.

Management actions within the NRMP are tied to requirements set forth in the MSCP. As such, their implementation and maintenance, as well as those recommendations within the MPU that support the NRMP, would take precedence, both from a funding and scheduling perspective, over other recommendations contained in the MPU that are more discretionary in nature. While some of the recommendations within the MPU are intended for near-term implementation (one to two years), most are looked at as mid- (three to five years) or long-term (more than five years) projects in recognition of economic conditions and staffing levels.

City staffing levels at the Park will fluctuate over time with the City's budget and broader economy. Reductions in staffing make ongoing maintenance of existing improvements—while still providing support for other day-to-day management activities, public programs, and public safety—more difficult. When overall Park management responsibilities exceed staffing resources, initial priority would be given to day-to-day management activities, such as patrols and enforcement. Priority would then be given to efforts that maintain compliance with MSCP requirements, and finally to projects that reduce existing maintenance efforts over those that would create new improvements and increase maintenance responsibilities.

Structured partnerships with recreation-focused nonprofit organizations would play a crucial role in the long-term implementation and maintenance of improvements within the Park. Developing and maintaining an open dialog and collaborative atmosphere between park rangers, City staff and these groups is essential. Volunteers play a significant role as trail maintenance crews, visitor center staff, and interpretive program docents.

### **3.3.2 Funding**

Funding to implement the actions and recommendations contained in the Plans would come from public and private sources. Numerous grants may be available from federal, state, local and private entities to provide assistance with implementation. The MPU details numerous federal and state grant opportunities available for subsequent project implementation.

### **3.3.3 Implementation**

The Plans would be implemented through subsequent projects, requiring a variety of discretionary and ministerial actions. These subsequent projects (i.e., trails, parking areas, restoration projects)

are referred to as future development or future projects in the text of the PEIR. A non-exclusive list of regulatory actions required for future implementing activities is shown on Table 3-2.

The trail recommendations contained within the MPU would be conducted in a phased approach based on multiple objectives, including resource protection value, staffing capacity, complexity of implementation, and available funding. One or more phases would be implemented in a given year. The MPU identified over 35 miles of official and unauthorized trails to close over time. The distribution of trail closures across each area of the Park is: Lake Murray - 0.34 mile, Cowles Mountain - 6.29 miles, Mission Gorge - 1.36 miles, Fortuna Mountain - 6.58 miles, East Elliott - 20.36 miles, West Sycamore - 0.80 mile. The first few phases of implementation would be focused on a series of prioritized trail closures and restoration throughout the Park prior to the implementation of new trail construction. Each area of the Park has been assessed to identify one or more phases of trail closures to be conducted in conjunction with the ability to implement new trails. The first phase or two of trail closures in each area are prioritized as part of the MPU; however, the subsequent phases can be adapted to fit Park needs over time and may be re-sequenced as necessary.

<b>Table 3-2 Future Actions</b>	
City of San Diego Actions	
<ul style="list-style-type: none"> <li>• Site Development Permits</li> <li>• Right of Entry permits for maintenance by an entity other than the City</li> </ul>	
Federal Actions	
<ul style="list-style-type: none"> <li>• Section 404 Permits</li> <li>• U.S. Fish and Wildlife Service Section 7 or 10 (a) Take Authorization</li> </ul>	
State of California Actions	
<ul style="list-style-type: none"> <li>• Caltrans Encroachment Permits</li> <li>• Section 1602/1603 Streambed Alteration Agreements</li> <li>• Caltrans 2081 Memorandum of Understanding for State Endangered Species</li> <li>• Water Quality Certification Determination for Compliance with Section 401</li> </ul>	
Other Agency Consultation/Actions	
<ul style="list-style-type: none"> <li>• Consultation with SDG&amp;E and SDCWA for work within easements</li> <li>• Air Pollution Control District Authority to Construct/Operate</li> <li>• Consultation with County of San Diego for work within County-owned or jointly owned land as detailed in Joint Powers Agreement O-18268.</li> </ul>	



## **Chapter 4**

# **History of Project Changes**

As stated in the Introduction to the Master Plan Update (MPU), the update was initiated “to reflect the current status of the park’s development and the evolving requirements of environmental protection” and address “the acquisition and potential acquisition of additional property within East Elliott and the inclusion of property within West Sycamore.” The Natural Resources Management Plan (NRMP) and MPU (collectively, the Plans) for the Mission Trails Regional Park (Park), have been developed as an integrated set of management guidelines for the Park, with the NRMP focusing on the natural, cultural, and historical resources and the MPU focusing on public access and recreation. The Plans have been developed under the direction of an ad hoc subcommittee of the Mission Trails Regional Park Citizens’ Advisory Committee (CAC) with consultation from state and federal resource agencies. The following is a summary of the development of the Plans.

### **4.1 Overview of Master Plan Update and History of Project Changes**

In 2007, an ad hoc subcommittee CAC began a process to update the 1985 Master Plan. In preparing an update to the Master Plan, one of the goals was to address the Multiple Species Conservation Program requirement for development of a NRMP. In November 2010, the City of San Diego (City) initiated work to prepare the MPU and NRMP.

In 2011, three public workshops were held to receive input from participants. Based on input received during the first workshop, draft alternatives were developed. These alternatives were presented at a second public workshop. Additional input on project alternatives was received through an online web survey. A draft plan was presented at the third workshop. This effort was followed by working meetings with City staff to review trail proposals resulting from the public workshops related to day-to-day Park management, habitat protection and fragmentation, sensitive species avoidance and encroachment, and cultural resource protection. Multiple meetings with the resources agencies and two site visits were also conducted. This planning effort resulted in a draft

plan which was released for input in November 2013. A Notice of Preparation meeting was held in April 2014.

Since the Notice of Preparation meeting in 2014, the City received additional input on the plan recommendations from the resources agencies and other stakeholders. Multiple meetings and three additional site visits were conducted with the resources agencies to address their concerns regarding habitat fragmentation and wildlife corridors.

A revised draft MPU and NRMP were prepared and released in April 2016 and presented to the CAC and Task Force in May. The primary areas of change involved the location of both new proposed trails as well as trail closures. The plan areas most affected include Cowles Mountain, Fortuna Mountain, East Elliott, and West Sycamore. Within Cowles Mountain some additional trail closures were identified, as well as a major re-route of one proposed trail. Within Fortuna Mountain numerous additional trail closures were identified, as well as major re-routes of the proposed trails on the north-side of Fortuna Mountain. Within East Elliott numerous additional trail closures were identified, as well as major re-routes of all proposed trails. Within West Sycamore some additional trail closures were identified, as well as the elimination of one proposed trail.



## Chapter 5

# Environmental Analysis

The following analyses provide information relative to 13 environmental topics as they pertain to the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). Each issue section is formatted to summarize the regulatory framework, environmental setting, list the criteria for the determination of significance, analyze any potential impacts, list the required mitigation measures, and summarize the level of significance after mitigation. The mitigation measures are presented as the mitigation framework. This sets forth a process that the City of San Diego (City) would require to be implemented by subsequent future projects in accordance with the Plans, except in the following cases:

- The mitigation measure is not applicable to the Project at hand; or
- Either the Project proponent offers alternative mitigation that reduces the significant impact to a similar level as would be achieved by the mitigation identified in the Program Environmental Impact Report (PEIR).

Topics subject to detailed analysis include those that were identified by the City as having the potential to cause significant environmental impacts, in addition to issues identified in the initial study and in response to the Notice of Preparation and scoping meeting as having potentially significant impacts. These topics are addressed in Chapter 5 and include the following:

- Land Use
- Visual Effects and Neighborhood Character
- Air Quality
- Greenhouse Gas Emissions
- Biological Resources
- Historical Resources
- Human Health/Public Safety/Hazardous Materials
- Hydrology and Water Quality
- Geology and Soils
- Paleontological Resources
- Transportation/Circulation
- Public Services
- Public Utilities

Topics that were determined by the City not to have potential significant impacts are addressed in Chapter 9, Effects Found Not to Be Significant.

## 5.1 Land Use

This section discusses the existing land uses within the study area and describes the potential land use impacts that would result from implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). An analysis of the consistency of the Plans with the General Plan, Municipal Code, and relevant community plans or park plans is provided. Information has been obtained from applicable land use plans and ordinances approved by the City.

### 5.1.1 Environmental Setting

As previously detailed in Chapter 3, Project Description, the study area is made up of six areas: Lake Murray, Cowles Mountain, Mission Gorge, Fortuna Mountain, East Elliott, and West Sycamore. The study area is within three City community plan areas (CPAs) (Navajo, Tierrasanta, and East Elliott) and one Precise Plan (Rancho Encantada). A variety of land uses, as identified by the General Plan (City of San Diego 2008a), are included within the study area. They include Park, Open Space and Recreation, Residential, Institutional, and Public and Semi-Public Facilities.

### 5.1.2 Regulatory Setting

There are no federal or state land use regulations which pertain to the Project. Section 5.5, Biological Resources, addresses applicable regulations for federal and state protection of biological resources such as the federal and state Endangered Species Acts, or Section 404 of the Clean Water Act. Section 5.6, Historical Resources, addresses applicable regulations for federal and state protection of Historical Resources (e.g., historic built-environment, pre-historic, and historic archaeological resources), and tribal cultural resources. The City's land use regulations are detailed below.

#### 5.1.2.1 General Plan

The General Plan was updated and adopted by City Council on March 10, 2008. The plan is primarily a policy document that sets goals and policies concerning the City and gives direction for growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan. General Plan Elements specifically address issues, concerns, and goals related to land use and community planning; recreation; conservation; urban design; historic preservation; and public facilities, services, and safety.

#### 5.1.2.2 Zoning

The majority of the Park is zoned Agricultural-Residential (AR-1-1). The purpose of the AR zones is to accommodate a wide range of agricultural uses while also permitting the development of single

dwelling unit homes at a very low density (minimum 10-acre lots for AR-1-1). However, a majority of parkland is publicly owned and intended for parkland preservation. Fortuna Mountain and East Elliott include areas of residential zoning including RS-1-1 within the Fortuna Mountain area and RS-1-8 within the East Elliott area. The portion of the West Sycamore area containing the Sycamore Landfill and a portion of the East Elliot area are zoned Industrial-Heavy (IH-2-1).

### **5.1.2.3 Municipal Code**

The Municipal Code regulates land use and development throughout the City. It is intended to be the means by which the land use policies in the General Plan are implemented. The Municipal Code identifies the uses that are allowed on parcels within the City. Chapters 11 through 15 of the Municipal Code are referred to as the Land Development Code (LDC). These chapters contain the City's zoning, subdivision, building, and permitting regulations. The LDC is one of the tools used to implement the General Plan and the various community plans, which establish land use throughout the City. Relevant provisions of the LDC are detailed below.

#### **a. Environmentally Sensitive Lands Regulations**

Chapter 14, Article 3 of the LDC contains the Environmentally Sensitive Lands (ESL) Regulations, which are intended to “protect, preserve and where damaged restore the environmentally sensitive lands of the City and the viability of the species supported by those lands” (City of San Diego 2013a). These regulations encourage a sensitive form of development and serve to implement the MSCP by prioritizing the preservation of biological resources within the Multi-Habitat Planning Area (MHPA).

ESL Regulations apply to all proposed development when environmentally sensitive lands are present. ESLs include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs, and Special Flood Hazard Areas (SFHA). Sensitive biological resources, steep hillsides, and SFHA are present within the Park. Sensitive biological resources, as defined by the ESL Regulations, include those lands within the MHPA and other lands outside of the MHPA that contain wetlands, vegetation communities classified as Tier I, II, IIIA, or IIIB; habitat for rare, endangered, or threatened species; or narrow endemic species. The San Diego River is considered a SFHA as shown on the Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA) and is subject to the ESL Regulations specified in Municipal Code Section 143.0145. See also Section 5.8.1.3 for additional discussion of development regulations for SFHAs.

ESL regulations [Municipal Code Section 143.0115(c)] require a development suitability analysis and land use plan to minimize impacts to ESL in accordance with the requirements of the Municipal Code and Land Development Manual when a Site Development Permit (SDP) is not requested concurrently with the processing of a project-specific land use plan. The proposed Plans would constitute the land use plan required by ESL Regulations. As specified in the Municipal Code Section 143.0115(c)(6), future projects within the Park subject to ESL Regulations would require a Process Four Site Development Permit and must be in conformance with the land use plan, in this case the MPU and NRMP, and must incorporate required mitigation. If not in conformance with the approved land use plan, the Site Development Permit would need to be in compliance with all ESL Regulations.

Some of the pertinent policies contained in the ESL Regulations include the following:

- Impacts to sensitive biological resources would be avoided and/or minimized.
- Impacts to wetlands would be avoided and a wetland buffer would be maintained to protect the functions and values of the wetland.
- All clearing, grubbing, or grading (inside and outside the MHPA) would be restricted during the breeding season where development may impact the following species:
  - Southwestern willow flycatcher (*Empidonax trallii extimus*): May 1–August 30
  - Least tern (*Sternula antillarum browni*): April 1–September 15
  - Cactus wren (*Campylorhynchus brunneicapillus sandiegensis*): February 15–August 15
  - Least Bell's vireo (*Vireo bellii pusillus*): March 15–September 15
  - Coastal California gnatcatcher (*Polioptila californica californica*): March 1–August 15 inside the MHPA only; no restrictions outside the MHPA

## **b. Storm Water Runoff and Drainage Regulations**

The Storm Water Runoff and Drainage Regulations (Chapter 14, Article 2, Division 2 of the LDC) regulate the development of, and impacts on, drainage facilities, to limit water quality impacts from development, to minimize hazards due to flooding while minimizing the need for construction of flood control facilities, and to minimize impacts on environmentally sensitive lands.

## **c. Historical Resources Regulations**

The purpose of the Historical Resources Regulations (Chapter 14, Article 3, and Division 2) is to protect, preserve, and, where damaged, restore the historical resources of San Diego, which include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties. These regulations are intended to assure that development occurs in a manner that protects the overall quality of historical resources and tribal cultural resources in accordance with Public Resources Code Sections 21080.3.1 and 21080.3.2 (Assembly Bill 52). The Historical Resources Regulations require that development affecting designated historical resources or historical districts would provide full mitigation for the impact to the resource as a condition of approval. If development cannot to the maximum extent feasible comply with the development regulations for historical resources, then a SDP or Neighborhood Development Permit (NDP) may be required.

The Historical Resources Regulations require that designated historical resources and traditional cultural properties be preserved unless deviation findings can be made by the decision-maker as part of a discretionary permit. Minor alterations consistent with the U.S. Secretary of the Interior's Standards are exempt from the requirement to obtain a SDP or NDP but must comply with the regulations and associated Historical Resources Guidelines. Limited development may encroach into important archaeological sites if adequate mitigation measures are provided as a condition of approval.

Historical Resources Guidelines, located in the Land Development Manual, provide property owners, the development community, consultants, and the general public explicit guidance for the management of historical resources located within the City's jurisdiction. These guidelines are designed to implement the Historical Resources Regulations and guide the development review process from the need for a survey and how impacts are assessed to available mitigation strategies and report requirements and include appropriate methodologies for treating historical resources located in the City.

#### **5.1.2.4 Bicycle Master Plan**

The City's Bicycle Master Plan, adopted in 2002 and updated in 2013, provides a framework for making cycling a more practical and convenient transportation option for a wide variety of San Diegans with different riding purposes and skill levels. The 2013 update to the Bicycle Master Plan presents a renewed vision for bicycle transportation, recreation, and quality of life in San Diego. The 2013 update evaluates and builds on the 2002 Bicycle Master Plan in light of the 2008 San Diego General Plan Update and reflects changes in bicycle user needs and changes to the City's bicycle network and overall infrastructure (City of San Diego 2013b).

#### **5.1.2.5 Pedestrian Master Plan**

The City's Pedestrian Master Plan City-Wide Implementation Framework Report was adopted in 2006 and includes a comprehensive analysis of each community's existing pedestrian conditions and needs. The subsequent phases of the Pedestrian Master Plan will identify pedestrian routes to activity centers and infrastructure improvement projects along these routes. The Pedestrian Master Plan will be a key resource and advantage for the City when seeking grant funding needed to implement pedestrian projects that promote pedestrian safety, walkability, mobility, and neighborhood quality.

#### **5.1.2.6 San Diego River Park Master Plan**

The San Diego River Park Master Plan was adopted in 2013 and provides the vision and guidance to restore the relationship between the river and the surrounding communities by creating a river-long park, stretching from the Pacific Ocean at Ocean Beach Park to the City's jurisdictional eastern boundary at the City of Santee.

To implement the San Diego River Park Master Plan, the following community plans were amended: Mission Valley, Navajo, Tierrasanta, and East Elliott. In addition, the following three sections of the Land Development Code were amended: Mission Valley Planned District (San Diego Municipal Code [SDMC] Chapter 15, Article 14, Division 3), Navajo Community Plan Implementation Overlay Zone (SDMC Chapter 13, Article 2, Division 14), and the Mission Trails Design District (SDMC Chapter 13, Article 2, Division 12). The CPIOZ is an implementing tool for the Design Guidelines of the San Diego River Park Master Plan as amended in the Navajo Community Plan River Park Subdistrict (SDMC Ch15, Art 3, Div 15 - DIAGRAM 132-14E, Navajo Community Plan Implementation Overlay Zone, reproduction of Map Nos. C-954 for illustration purposes only).

### **5.1.2.7 Mission Trails Design District**

The Mission Trails Design District Ordinance provides design guidelines, subdivision, zoning, and other land use controls to ensure development is compatible with the edge of the Park. The ordinance was first adopted by the City in 1981. Revisions were approved in 2003 for changes to the design guidelines and boundaries; in 2013, revisions were approved to make the Mission Trails Design District consistent with the San Diego River Park Master Plan (City of San Diego 2013c). The Mission Trails Design District covers over 2,000 acres adjacent to the Park within the Navajo, Tierrasanta, and East Elliott communities. The intent of the Mission Trails Design District is to control development in these areas, adjacent to the sensitive areas around the Park, so as to be consistent with the goals of the Park. The overall policy is that new development should relate to the Park and existing landscaping in the Park.

### **5.1.2.8 City of San Diego Community Plans**

The City has several Community Plans and a Precise Plan within the area covered by the Park. These plans act as “mini” General Plans and are intended to provide policy recommendations regarding future development specific to each community. The community plans that would require minor amendments with approval and implementation of the Plans are described below.

#### **a. Tierrasanta Community Plan**

The Tierrasanta Community Plan was adopted by the San Diego City Council on July 27, 1982, by Resolution No. 256890 and was last amended September 12, 1989. The plan is intended to serve as a guide for future public and private development within the Tierrasanta community. The plan includes a series of goals and objectives established by the community that are consistent with Citywide policies (City of San Diego 2008b). Plan elements within the Community Plan include: Open Space, Community Facilities, Urban Design, and Transportation.

#### **b. East Elliott Community Plan**

The East Elliott Community Plan was adopted by the San Diego City Council on April 29, 1971, by Resolution No. 202550 and was last amended November 10, 2008. Because the majority of the East Elliott Community Plan area is designated for long-term open space use, the plan focuses largely on open space management guidelines. These guidelines are designed to foster preservation and enhancement of the natural open space areas that cover a majority of the planning area (City of San Diego 2008c), while still allowing for private development.

#### **c. Navajo Community Plan**

The Navajo Community Plan was adopted by the San Diego City Council on December 7, 1982, by Resolution No. 257606 and was last amended in June 2015. The overriding objectives for the long range development of Navajo are to retain the residential character of the area, provide adequate community services, establish guidelines for the utilization of canyons and hillsides, and enhance the environment of the area as a pleasant, livable, walkable community in which to live. The plan represents a policy framework that provides guidelines for public and private development (City of

San Diego 2015). The Community Plan provides CPIOZ policies and addresses Open Space Retention and Utilization, Public Schools, other Community Facilities, Transportation and Circulation, Public, and Community Environment.

#### **d. Rancho Encantada Precise Plan**

The Rancho Encantada Precise Plan was adopted by the San Diego City Council on August 7, 2001 by City Council Resolution R-295402 and has not been amended. The Precise Plan designates approximately 81 percent of the community for parks and open space, 18 percent for residential development, and 1 percent for an elementary school and institutional use. Because the majority of the Rancho Encantada Precise Plan area is designated for long-term open space use, the plan focuses largely on open space management guidelines. These guidelines are designed to foster preservation and enhancement of the natural open space areas that cover a majority of the planning area (City of San Diego 2001a).

#### **5.1.2.9 City of San Diego Multiple Species Conservation Program Subarea Plan**

The Multiple Species Conservation Program (MSCP) is a comprehensive habitat conservation planning program for 582,243 acres in southwestern San Diego County. The City's MSCP Subarea Plan was approved in March 1997 and encompasses 206,124 acres within the MSCP study area. The MSCP preserves a network of habitat and open space to protect biodiversity and enhance the region's quality of life. The MSCP provides an economic benefit by reducing constraints on future development and decreasing the costs of compliance with federal and state natural resource laws. Local jurisdictions, including the City, implement their portions of the MSCP through subarea plans, which describe specific implementing mechanisms providing a process for the issuance of permits under the federal and state Endangered Species Act and the California Natural Communities Conservation Planning Act of 1991. The primary goal of the MSCP Subarea Plan is to conserve viable populations of sensitive species and to conserve regional biodiversity while allowing for reasonable economic growth.

In July 1997, the City of San Diego signed an Implementing Agreement (IA) with United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW). The IA serves as a binding contract between the City, USFWS, and CDFW that identifies the roles and responsibilities of the parties to implement the MSCP and Subarea Plan. The agreement became effective on July 17, 1997, and allows the City to issue Incidental Take Authorizations (ITAs) under the provisions of the MSCP. Applicable state and federal permits are still required for wetlands and listed species that are not covered by the MSCP.

The MPU study area is located inside the approved boundaries of the City's MSCP Subarea Plan and as such, projects are required to comply with the general and specific management policies and directives included in Sections 1.5.2 and 1.5.6 of the City's MSCP Subarea Plan. Section 1.5.2 provides general management directives which apply to all areas within the MHPA. These general directives provide guidance on access and recreation within open space areas, including the Park. Section 1.5.6 of the Subarea Plan provides specific management policies and directives for the Eastern Area which includes East Elliott and the Park. Management priorities to be undertaken by the City as part of its

MSCP implementation requirements are also included in this section of the Subarea Plan. Those actions identified as Priority 1 are required to be implemented by the City as a condition of the MSCP Take Authorization to ensure that covered species are adequately protected. The actions identified as Priority 2 may be undertaken by the City as resources permit. In addition to implementation of the management priorities for the Eastern Area, the goals and polices, which have been incorporated into the Plans, are intended to achieve, maintain, and enhance biological diversity within the City's MHPA and ensure continued conservation of viable populations of endangered, threatened, and key sensitive species and their habitats in the Park.

### **a. Multi-Habitat Planning Area**

The MSCP's MHPA includes regional wildlife corridors and core biological areas that are targeted for conservation. These lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region, and sensitive biological resources under the City's ESL Regulations. Conditionally compatible uses within the MHPA include passive recreation, utility lines and roads, limited water facilities and essential public facilities, limited low-density residential use, brush management zone 2, and limited agriculture (MSCP Subarea Plan Section 1.4.1). The majority of lands at MTRP are located within the MHPA (NRMP Figure 3-1).

Private land wholly within the MHPA is allowed only up to 25 percent development in the least sensitive area per the City's MSCP Subarea Plan. Should more than 25 percent development be desired, an MHPA boundary line adjustment may be proposed. The City's MSCP Subarea Plan states that adjustments to the MHPA boundary line are permitted without the need to amend the City's Subarea Plan, provided the boundary adjustment results in an area of equivalent or higher biological value. To meet this standard, the area proposed for addition to the MHPA must meet the six functional equivalency criteria set forth in Section 5.5.2 of the Final MSCP Plan. All MHPA boundary line adjustments require approval by the Wildlife Agencies and the City.

For parcels located outside the MHPA, there is no limit on the encroachment into sensitive biological resources, with the exception of wetlands, and listed non-covered species' habitat (which are regulated by state and federal agencies) and narrow endemic species. However, impacts to sensitive biological resources must be assessed and mitigation, where necessary, must be provided in conformance with the City's Biological Guidelines.

The boundary of the MHPA within a specific parcel may be revised through an MHPA Boundary Line Adjustment to accommodate additional development and requires approval from the City, CDFW, and USFWS. An analysis for an adjustment of the MHPA boundary would be required to evaluate and compare the relative biological value of the areas proposed for removal from the MHPA with those proposed for inclusion into the MHPA (lands within the MHPA would be replaced at a 1:1 ratio). This evaluation requires assessing the potential effects on various parameters related to the function of the MHPA preserve system.

- Effects on significantly and sufficiently covered habitats (i.e., the exchange maintains or improves the conservation, configuration, or status of significantly or sufficiently conserved habitats).

- Effects to covered species (i.e., the exchange maintains or increases the conservation of covered species).
- Effects on habitat linkages and function of preserve areas (i.e., the exchange maintains or improves a habitat linkage or wildlife corridor).
- Effects on preserve configuration and management (i.e., the exchange results in similar or improved management efficiency and/or protection for biological resources).
- Effects on ecotones or other conditions affecting species diversity (i.e., the exchange maintains topographic and structural diversity and habitat interfaces of the preserve).
- Effects to species of concern not on the covered species list (i.e., the exchange does not significantly increase the likelihood that an uncovered species will meet the criteria for listing under either the federal or state Endangered Species Acts).

### **b. Multi-Habitat Planning Area Land Use Adjacency Guidelines**

Portions of the MPU study area occur within or immediately adjacent to the MHPA. Lands within the MHPA have been determined to provide the characteristics necessary (e.g., habitat quality, quantity, and connectivity) to support the sensitive biological resources found in San Diego.

To address the integrity of the MHPA and mitigate for indirect impacts to the MHPA, guidelines were developed to manage land uses adjacent to the MHPA. Implementation of the adjacency guidelines would be addressed on a project-by-project basis and be considered during the planning, development, and/or management stages to minimize impacts and maintain the function of the MHPA. The issues to be considered during the project review stage consist of drainage, toxics, lighting, noise, barriers, invasives, brush management, and grading/land development. The MHPA Land Use Adjacency Guidelines are intended to be incorporated into the Mitigation Monitoring and Reporting Program and/or applicable permits during the review of a subsequent project implemented in accordance with the adopted MPU. Compliance with the MHPA Land Use Adjacency Guidelines, which address potential indirect effects on the MHPA is required for all projects.

### **c. MSCP Subarea Plan: General MHPA Guidelines for the Eastern, Northern, and Urban Areas**

The City's general MHPA Guidelines as described in Section 1.2.2 of the City's MSCP Subarea Plan and identifies specific guidelines applicable to the Eastern Area which includes the Park and East Elliott. The eastern edge of this area forms the San Diego border with the City of Santee. Specific MHPA Guidelines (B2 through B14) for these two areas are further described in the MSCP Subarea Plan.

The Lake Murray portion of the MPU is part of the Urban Habitat Areas of the MHPA. Section 1.2.3 Urban Areas, describes urban habitat areas as primarily concentrated in existing urbanized locations, consisting of canyons with native habitats in relative proximity to other MHPA areas providing habitat. The finger canyons surrounding Lake Murray consist of coastal sage scrub, coastal sage scrub/chaparral, riparian/wetlands, and grasslands.

The West Sycamore Expansion area is included in the Northern Area (Section 1.2.4) which is largely comprised of regional linkages leading to biological core areas within existing reserves and parks. MHPA Guidelines C27 and C28 specifically address the West Sycamore Expansion Area.

#### **d. MSCP Subarea Plan: Framework Management Plan – General Management Policies and Directives for the Eastern, Northern and Urban Areas**

Section 1.5 of the MSCP Subarea Plan includes management goals and objectives for each area assuring the overarching goal of the MSCP to maintain and enhance biological diversity in the region and conserve viable populations of endangered, threatened, and key sensitive species and their habitats while allowing for reasonable economic growth.

In order to assure that the goal of the MHPA is attained and fulfilled, management objectives for the City of San Diego MHPA are as follows:

- To ensure the long-term viability and sustainability of native ecosystem function and natural processes throughout the MHPA.
- To protect the existing and restored biological resources from intense or disturbing activities within and adjacent to the MHPA while accommodating compatible public recreational uses.
- To enhance and restore, where feasible, the full range of native plant associations in strategic locations and functional wildlife connections to adjoining habitat in order to provide viable wildlife and sensitive species habitat.
- To facilitate monitoring of selected target species, habitats, and linkages in order to ensure long-term persistence of viable populations of priority plant and animal species and to ensure functional habitats and linkages.
- To provide for flexible management of the preserve that can adapt to changing circumstances to achieve the above objectives.

Section 1.5.1 lists general management guidelines relevant to the entire City MHPA system and specific guidelines and recommendations for each planned area of the MHPA. Management directives are organized into the two priorities and intended to assist in the decisions on where to spend limited funds and direct mitigation efforts.

Section 1.5.2 provides general management directives applicable to all areas of the City's MSCP Subarea Plan as appropriate and include Mitigation, Restoration, Public Access, Trails and Recreation, Litter/Trash and Materials Storage, Adjacency Management Issues, Invasive Exotics Control and Removal, and Flood Control.

Sections 1.5.6, 1.5.7, and 1.5.8 identify specific management policies and directives for the Eastern Area, Urban Habitat Lands, and the Northern Area. Major issues and priorities are further outlined in the Subarea Plan which require consideration for management in the MPU project area and

during subsequent project review. The area-specific directives and policies have been incorporated into the Plans.

### **5.1.2.10 Article 55 of the San Diego City Charter**

As set forth in Article 55 of the San Diego City Charter, “the City Manager shall have the control and management of parks, parkways, plazas, beaches, cemeteries, street trees, landscaping of City-owned property, golf courses, playgrounds, recreation centers, recreation camps and recreation activities held on any City playgrounds, parks, beaches and piers, which may be owned, controlled or operated by the City” (City of San Diego 1975). The City Council shall by ordinance adopt regulations for the proper use and protection of these resources, which will be enforced by the City Manager. All real property owned in fee by the City or formally dedicated in the future “for park, recreation or cemetery purposes shall not be used for any but park, recreation or cemetery purposes without such changed use or purpose having been first authorized or later ratified by a vote of two-thirds of the qualified electors of the City voting at an election for such purpose” (City of San Diego 1975).

### **5.1.3 Significance Determination Thresholds**

The determination of significance regarding any inconsistency with development regulations or plan policies is evaluated in terms of the potential for the inconsistency to result in environmental impacts considered significant under California Environmental Quality Act (CEQA). Thresholds used to evaluate potential impacts related to land use are based on applicable criteria in the CEQA Guidelines Appendix G and the City of San Diego CEQA Significance Determination Thresholds (2016a). Thresholds are modified from the City’s CEQA Significance Determination Thresholds to reflect the programmatic analysis for the Plans and associated discretionary actions. Impacts related to land use would be significant if implementation of the Plans and associated discretionary actions would:

1. Result in a conflict with the goals, objectives, and recommendations of the General Plan, the LDC, or the Tierrasanta, East Elliott, and Navajo Community Plans and Rancho Encantada Precise Plan;
2. Result in a conflict with the density calculations, design standards, use restrictions, and any other development regulations of the City’s LDC related to the applicable zoning regulations and as a result, cause an indirect or secondary environmental impact to occur; or
3. Result in a conflict with adopted environmental plans, including the City’s MSCP Subarea Plan and MHPA adopted for the purpose of avoiding or mitigating an environmental effect for the area.

## 5.1.4 Impact Analysis

### Issue 1: Land Use Plan Conflict

*Would implementation of the Plans and associated discretionary actions result in a conflict with the goals, objectives, and recommendations of the General Plan, the LDC, or the Tierrasanta, East Elliott, and Navajo Community Plans and Rancho Encantada Precise Plan?*

The study area is within the neighborhoods of Rancho Encantada, Scripps Ranch, Tierrasanta, San Carlos, Lake Murray, and Del Cerro. It is also within the Rancho Encantada Precise Plan and the East Elliott, Tierrasanta, and Navajo CPAs of the City. To determine if any conflicts would occur with the land use designation, intensity of development, and environmental goals of these plans as a result of implementation of the Plans, a consistency analysis is presented with applicable goals, policies, and objectives from the General Plan, Municipal Code, and the Navajo, Tierrasanta, and East Elliott Community Plans, as well as the Rancho Encantada Precise Plan.

#### a. General Plan

The General Plan is a policy document that sets objectives and policies concerning the City and gives direction to growth and development. Included in the document are elements that specifically address issues, concerns, and goals related to land use and community planning; recreation; conservation; urban design; and public facilities, services, and safety. To determine if any conflicts would occur as a result of implementation of the Plans, a consistency analysis is presented in Table 5.1-1, with applicable goals from the General Plan.

Table 5.1-1 demonstrates that the Plans are consistent with the General Plan and would not conflict with any applicable General Plan goals. Therefore impacts would be less than significant.

<b>Table 5.1-1 City of San Diego General Plan Consistency Analysis</b>		
<b>General Plan Goals</b>	<b>Consistency Discussion</b>	<b>Determination</b>
<b>Recreation Element</b>		
<i>Park and Recreation Guidelines</i>		
A sustainable park and recreation system that meets the needs of residents and visitors.	The Park is one of the largest urban parks in the U.S. The Plans work together to promote a balance between the preservation of natural open space in conformance with the MSCP and the varying demands for non-motorized recreation by a diverse citizenry.	Consistent
An equitable citywide distribution of and access to parks and recreation facilities.	The Park is located near the geographical center of the City and as a Regional Park with multiple access points would continue to provide for the equitable citywide distribution of and access to parks and recreation facilities.	Consistent
<i>Recreation Opportunities</i>		
A City with park and recreation facilities and services that are designed to accommodate the needs of a growing and diverse population and respect the City's natural landforms.	The Park is currently approximately 5,830 acres. Adoption and implementation of the Plans would add an additional 2,590 acres in the East Elliott area and 1,360 acres in the West Sycamore area in response to the needs of a growing and diverse population.	Consistent
A regional and citywide parks/open space system, including the bays, beaches, rivers, and other attractions that gives our region identity, attracts tourism and enriches the quality of life for residents and visitors.	The Plans envision the Park as a place that all San Diego residents and visitors can come to enjoy the experience of the natural attractions that the City has to offer.	Consistent
A City with a diverse range of active and passive recreational opportunities that meet the needs of each neighborhood/ community and reinforce the City's natural beauty and resources.	The Plans recommend and guide a balance of resource preservation with improved management and facilities for recreational opportunities.	Consistent
<i>Preservation</i>		
Preserve, protect and enhance the integrity and quality of existing parks, open space, and recreation programs citywide.	The Plans seek to connect the expansion areas with the existing areas of the Park in order to extend a comprehensive management approach to a broad and diverse area, preserving and protecting resources to enhance the quality of the Park experience for all visitors.	Consistent

<b>Table 5.1-1 City of San Diego General Plan Consistency Analysis</b>		
<b>General Plan Goals</b>	<b>Consistency Discussion</b>	<b>Determination</b>
<i>Accessibility</i>		
A park and recreation system that provides an equitable distribution of park and recreation facilities that are designed to accommodate the needs of a diverse population.	Adoption and implementation of the Plans would expand the boundaries of the Park to accommodate the needs of a growing population. The recognition of a need to balance resource protection with active and passive recreation activities strives to meet the needs of a diverse population.	Consistent
Park and recreation facilities that are sited to optimize access by foot, bicycle, public transit, automobile, and alternative modes of travel.	A unique aspect of the Park is that it for the most part is a rugged natural wilderness park within the midst of a large metropolitan area. The addition of the East Elliott and West Sycamore areas would increase the Park acreage from 5,830 acres to approximately 9,780 acres. Located only 8 miles northeast of downtown San Diego, it is accessible by automobile, bicycle, trolley, bus, and on foot with multiple points of entry and destinations within the Park.	Consistent
Provision of an inter-connected park and open space system that is integrated into and accessible to the community.	As noted above, the increase in Park acreage will interconnect areas of the Park to the north with those in the south and will further integrate the Park into the surrounding urban area.	Consistent
<i>Open Space Lands and Resource-based Parks</i>		
An open space and resource-based park system that provides for the preservation and management of natural resources, enhancement of outdoor recreation opportunities, and protection of the public health and safety.	The Plans were specifically prepared so that the City could better preserve and manage the natural resources of the Park while promoting recreational uses and protecting public health and safety.	Consistent
Preservation of the natural terrain and drainage systems of San Diego's open space lands and resource-based parks.	The Park is the ideal resource-based park within the City. The Plans value the preservation of the natural open space, including the terrain and drainage systems, of the Park.	Consistent

<b>Table 5.1-1 City of San Diego General Plan Consistency Analysis</b>		
<b>General Plan Goals</b>	<b>Consistency Discussion</b>	<b>Determination</b>
A system of pedestrian, bicycle, and equestrian paths linking communities, neighborhoods, parks, and the open space system.	The MPU recommends establishing a framework for identifying unsafe or unsustainable sections of recreational trails that will provide guidance for the types of management actions required. The goal is for a sustainable network of pedestrian, bicycle, and equestrian trails that will connect the trailheads within each of the communities adjacent to the Park.	Consistent
<b>Conservation Element</b>		
<i>Open Space and Landform Preservation</i>		
Preservation and long-term management of the natural landforms and open spaces that help make San Diego unique.	The NRMP was prepared in order to fulfill the City's MSCP requirement to develop ASMDs for the protection of natural resources at the Park. The Park is a core biological resource area and regional wildlife corridor within the MHPA. As such, preservation and long-term management of the natural landforms and open spaces within the Park is required and is a primary objective of the Plans.	Consistent
<i>Urban Runoff Management</i>		
Protection and restoration of water bodies, including reservoirs, coastal waters, creeks, bays, and wetlands.	The Plans have been prepared to be compatible with the San Diego River Master Plan. All water bodies are considered to be sensitive and will be protected and preserved.	Consistent
<i>Biological Diversity</i>		
Preservation of healthy, biologically diverse regional ecosystems and conservation of endangered, threatened, and key sensitive species and their habitats.	The NRMP identifies specific management actions to protect biodiversity and endangered, threatened, and key sensitive species and their habitats.	Consistent
<i>Wetlands</i>		
Preservation of San Diego's rich biodiversity and heritage through the protection and restoration of wetland resources.	The Plans do not entail any actions or subsequent projects that would disturb wetland resources. They identify wetlands and the associated rich biodiversity as resources that should be restored, enhanced, and protected.	Consistent

<b>Table 5.1-1 City of San Diego General Plan Consistency Analysis</b>		
<b>General Plan Goals</b>	<b>Consistency Discussion</b>	<b>Determination</b>
<i>Environmental Education</i>		
Widespread public awareness of how the individual and cumulative actions of individuals, organizations, and businesses affect the environment.	Through the Plans, the Park will expand public awareness of the need to balance the preservation of natural resources and provide opportunities for recreation and will educate the public regarding the cumulative impacts that individuals, organizations, and businesses have on the environment, both positive and negative.	Consistent
<b>Mobility Element</b>		
<i>Walkable Communities</i>		
A city where walking is a viable travel choice, particularly for trips of less than one-half mile.	The MPU promotes and encourages walking throughout the Park.	Consistent
A safe and comfortable pedestrian environment.	The MPU strives to maintain a safe and comfortable pedestrian environment through providing separation of pedestrian areas from motor vehicles and limiting equestrian and mountain bike use to certain roads and trails while promoting trail etiquette where equestrians yield to pedestrians and mountain bikers yield to both equestrians and pedestrians.	Consistent
A complete, functional, and interconnected pedestrian network, that is accessible to pedestrians of all abilities.	Much of the Park consists of steep, rugged terrain. The MPU encourages that wherever feasible, pedestrian walkways and trails be designed to be accessible to pedestrians of all abilities.	Consistent
Greater walkability achieved through pedestrian friendly street, site and building design.	The MPU encourages the development and maintenance of a sustainable trails network throughout the Park allowing for greater walkability.	Consistent
<i>Bicycling</i>		
A city where bicycling is a viable travel choice, particularly for trips of less than 5 miles.	The MPU will allow for the continued and enhanced use of the Park as a viable route and destination for cyclists.	Consistent
A safe and comprehensive local and regional bikeway network.	The MPU calls for the coordination with the San Diego Bicycle Master Plan and other current planning efforts to help create a safe bikeway network.	Consistent

<b>Table 5.1-1 City of San Diego General Plan Consistency Analysis</b>		
<b>General Plan Goals</b>	<b>Consistency Discussion</b>	<b>Determination</b>
Environmental quality, public health, recreation and mobility benefits through increased bicycling.	Implementation of the MPU would benefit the City's environmental quality, public health, recreation, and mobility by increasing bicycle access within the Park through the establishment of a trails management framework.	Consistent

## b. Navajo Community Plan

The Navajo Community Plan discusses the importance of preservation of steep hillsides and open space. To determine if any conflicts would occur as a result of implementation of the Plans, a consistency analysis is presented in Table 5.1-2, with applicable objectives from the Navajo Community Plan. Table 5.1-2 demonstrates that the Plans are consistent with the Navajo Community Plan and would not conflict with any applicable Community Plan objectives. Therefore, impacts would be less than significant.

<b>Table 5.1-2 Navajo Community Plan Consistency Analysis</b>		
<b>Community Plan Objectives</b>	<b>Consistency Discussion</b>	<b>Determination</b>
<b>Open Space Retention and Utilization</b>		
Designate and preserve open space before development takes place.	The Navajo CPA covers approximately 8,000 acres. Approximately 4,250 acres are undeveloped land, much of which has steep slopes. The Plans would be consistent with this policy as they provide the goals and guidelines preserving the Park's sensitive natural resources while allowing for recreational opportunities. Further, the Plans would not allow development beyond Park amenities.	Consistent
Preserve, improve, and reconstruct the wetlands and riparian habitat areas in and along both sides of the San Diego River.	Implementation of the Plans would include some trail closures where they cross wetland habitats and the MPU includes policies that support maintenance and enhancement of the wetlands and riparian habitats along the river.	Consistent
Enhance and maintain the aesthetic and recreational qualities of the San Diego River Corridor as part of the open space system.	The San Diego River Park Subdistrict has been established along the San Diego River, which runs through the Park, to return the river to the people and to bring back the health of the river and its habitat. This is consistent with the Plans, which provide the goals and guidelines for enhancement of the recreational opportunities while preserving the sensitive natural resources.	Consistent

<b>Table 5.1-2 Navajo Community Plan Consistency Analysis</b>		
<b>Community Plan Objectives</b>	<b>Consistency Discussion</b>	<b>Determination</b>
Conserve the present amenity of Navajo, Rancho Mission, Mission Gorge, and other canyons for the enjoyment of this generation and as a legacy for succeeding generations.	There are over 700 acres of scenic canyons, including Mission Gorge, which are dominant topographical features of the Navajo community. The Navajo Community Plan recognizes that the open space element is designed to preserve the river, scenic canyon and hillside areas, and to link elements of the community.	Consistent
Establish and preserve a total open space system in perpetuity and guard against its commercialization. Preserve the natural environment including wildlife, vegetation, and terrain.	The Plans have been prepared in conformance with the City's MSCP to define Park boundaries, identify recreational and open space opportunities, and preserve the natural environment.	Consistent
Permit only those uses within the system that are compatible with the open space concept.	The Plans provide guidelines for compatible recreational amenities and trails within the Park, with an emphasis on the protection and preservation of natural resources and the provision of recreational opportunities for a diverse population.	Consistent
Ensure that any public improvements such as roads, drainage channels, and utility services, and any private lessee developments be compatible with the objectives of the open space system.	The Plans acknowledge the presence of utility easements and facilities throughout the Park and the need to accommodate utilities while ensuring compatibility with the objectives of the open space and recreation use areas.	Consistent
<b>Parks and Recreation</b>		
Develop sufficient and convenient parks and recreation facilities to serve the existing and future population of the community.	The Plans address the expansion of the Park and the need to protect and preserve sensitive natural resources while providing recreation opportunities for a diverse population. Given the planned expansion areas of the Park, plans for future management, and the many communities that it serves through multiple access points, the community would be adequately served with regards to recreation needs.	Consistent

<b>Table 5.1-2 Navajo Community Plan Consistency Analysis</b>		
<b>Community Plan Objectives</b>	<b>Consistency Discussion</b>	<b>Determination</b>
Develop pedestrian and bikeway linkages between open space, neighborhood and community parks, and other recreation and activity centers.	The Plans include guidelines for the improvement of existing trail networks that provide linkages between multiple neighborhoods that abut the Park and various recreation and activity centers within the Park and in the adjacent communities.	Consistent
<b>Community Environment</b>		
To preserve and enhance the natural beauty and amenities of the Navajo community.	The Park is a major amenity for the Navajo CPA and the region. The Plans strive to preserve and enhance the natural beauty of the Park.	Consistent

### **c. Tierrasanta Community Plan**

The Tierrasanta Community Plan specifically acknowledges the presence and importance of the Park. In 1976, the City adopted the boundaries for the Park, bisecting the original "Elliott CPA" into two distinct sections. The Park and the newly developing section to the west were severed from the Elliott Community Plan, and a new planning area was formed with the adoption of the Tierrasanta Community Plan in 1982. The more rugged, remote section east of the Park is now known as the East Elliott CPA, discussed below.

The inclusion of extensive areas of natural open space has played a considerable role in shaping the form of development within Tierrasanta. The Park comprises approximately half of this CPA, and the San Diego River roughly forms the southerly boundary of the community. Canyon systems meander throughout the community, defining the transitions between individual development areas and interconnecting to the larger canyon systems. The vast majority of developable land in Tierrasanta has been built out and is devoted to residential uses, with several small commercial centers scattered throughout the community and light industrial near the intersection of Interstate 15 and State Route 52.

To determine if any conflicts would occur as a result of implementation of the Plans, a consistency analysis is presented in Table 5.1-3, with applicable objectives from the Tierrasanta Community Plan. Table 5.1-3 demonstrates that the Plans are consistent with the Tierrasanta Community Plan and would not conflict with any applicable Community Plan objectives. Therefore, impacts would be less than significant.

<b>Table 5.1-3 Tierrasanta Community Plan Consistency Analysis</b>		
<b>Community Plan Objectives</b>	<b>Consistency Discussion</b>	<b>Determination</b>
<b>Community Facilities</b>		
To encourage a full range of recreational facilities distributed throughout the community to serve children, youth, and adults.	The Plans address the protection and preservation of sensitive natural resources and the development of recreation facilities to serve a diverse population. With several primary access points within the Tierrasanta community and recommendations for an improved trails network, the children, youth, and adults of Tierrasanta will continue to be provided with recreational opportunities within the Park.	Consistent
<b>Urban Design</b>		
To protect and enhance the physical environment, visual appearance, identity and character of the Tierrasanta community through aesthetic improvements and careful urban design.	The physical appearance, visual appearance, and identity and character of the Park are primarily that of undeveloped natural open space, which carries over and contributes to a similar character theme in the more developed areas of Tierrasanta. The Plans contain guidelines for trails and recreational amenities within the Park that will be compatible with the existing natural and built environment.	Consistent
To provide a functional community which has maximum linkages between public places, and which promotes social cohesion and civic pride.	The Plans balance the protection and preservation of sensitive natural resources with the provision of recreational opportunities for a diverse population. Linkages with the Tierrasanta community will be preserved, and, where feasible and desirable, enhanced.	Consistent
To provide public improvements which enhance the community both functionally and aesthetically.	The Plans provide guidelines for future improvements within the Park. Function and aesthetics are to be considered for all future improvements.	Consistent
<b>Transportation</b>		
To provide a pedestrian pathway system utilizing City open space and right-of-ways, and linking neighborhoods and activity centers.	The Plans provide guidelines for improving the existing trails network throughout the Park, which will continue to improve the linkages between neighborhoods and activity centers within and adjacent to the Park.	Consistent

#### **d. East Elliott Community Plan**

The East Elliott CPA is mostly within the boundaries of the MSCP/MHPA, with nearly 80 percent of the area in the Community Plan designated as Open Space. To determine if any conflicts would occur as a result of implementation of the Plans, a consistency analysis is presented in Table 5.1-4,

with applicable open space management objectives from the East Elliott Community Plan. Table 5.1-4 demonstrates that the Plans are consistent with the East Elliott Community Plan and would not conflict with any applicable Community Plan objectives. Therefore, impacts would be less than significant.

<b>Table 5.1-4 East Elliott Community Plan Consistency Analysis</b>		
<b>Community Plan Objectives</b>	<b>Consistency Discussion</b>	<b>Determination</b>
<b>Open Space Management</b>		
Natural open space areas should remain undeveloped with disturbance limited to trails and passive recreational uses such as walking, hiking and nature study that are consistent with preservation of natural resources.	The Plans provide guidelines for the protection and preservation of open space while providing recreational opportunities for a diverse population. Trails are to be rerouted where necessary to protect natural resources and are to be consistent with recreational uses.	Consistent
More active recreation uses, including horseback riding and mountain biking, may also be permissible if measures are taken to ensure that biological values are not threatened.	The Plans acknowledge the need to provide recreational opportunities for a diverse population, including equestrians and mountain bikers. A trail system that includes trails for both of these user groups is to be maintained.	Consistent
Public access to limited areas of particularly sensitive natural open space could be restricted. Examples of locations where access could be controlled include vernal pool areas and identified nesting areas for endangered or threatened animal or bird species.	The Plans include recommendations for the exclusion of all active uses from particularly sensitive natural open space areas, including those areas that contain vernal pools and nesting areas for endangered or threatened animal or bird species.	Consistent
Transition areas should be established between urban uses and the open space system, along traffic corridors and canyon overlooks, where feasible and appropriate. Such transition areas may be developed by providing additional maintenance and planting noninvasive grass, shrubs and trees that provide a sensitive transition between uses.	While this community plan objective is intended to apply to land uses adjacent to but outside of the Park, the Plans also recognize the importance of transition zones and buffer areas between the Park and adjacent development.	Consistent

### e. Rancho Encantada Precise Plan

Rancho Encantada is a new community that is planned for limited residential development and is currently completing development. With the Rancho Encantada Precise Plan, 1,568 acres of land was conveyed to the MHPA within the West Sycamore area for purposes of habitat conservation. A total of 935 homes were planned for the 2,658-acre community. The community is defined by its rugged topography characterized by eroded ridges and canyons ranging in elevation from 600 feet in the west to 1,777 feet in the northeast. The community has been designed to protect the majority of the steep hillsides, canyons, and ravines by concentrating development along the upper elevations and in areas disturbed by the previous development (General Dynamics). The Rancho Encantada Precise Plan designates approximately 81 percent of the community for parks and open space, 18 percent for residential development, and 1 percent for an elementary school and institutional use.

To determine if any conflicts would occur as a result of implementation of the Plans, a consistency analysis is presented in Table 5.1-5, with applicable open space management objectives from the Rancho Encantada Precise Plan. Table 5.1-5 demonstrates that the Project is consistent with the Rancho Encantada Precise Plan and would not conflict with any applicable Community Plan objectives. Therefore, impacts would be less than significant.

<b>Table 5.1-5 Rancho Encantada Precise Plan Consistency Analysis</b>		
<b>Precise Plan Objectives</b>	<b>Consistency Discussion</b>	<b>Determination</b>
<b>General</b>		
Implement the MSCP and ensure that development preserves the integrity of the MHPA.	The intent of the NRMP is to implement the MSCP within the Park, which is a core area within the MHP. The MPU has been drafted to be consistent with both the NRMP and the MSCP.	Consistent
Satisfy the existing contractual obligations to conserve approximately 1,150 acres in the eastern portion of the Precise Plan area as open space.	The Plans will incorporate the approximately 1,150 acres in the eastern portion of the Precise Plan into the Park and will designate them for preservation as open space.	Consistent

<b>Table 5.1-5 Rancho Encantada Precise Plan Consistency Analysis</b>		
<b>Precise Plan Objectives</b>	<b>Consistency Discussion</b>	<b>Determination</b>
<b>Circulation</b>		
<p>Although the Precise Plan does not propose active recreational uses within open space areas, pedestrian trails are permitted uses in all areas designated as open space, subject to the requirements and restrictions of the City’s MSCP. If trails are provided through MHPA open space, the following standards shall apply:</p> <ul style="list-style-type: none"> <li>a. Provide sufficient signage to clearly identify public access to the MHPA.</li> <li>b. Locate trails, view overlooks, and staging areas in publicly owned areas and in the least sensitive areas of the MHPA. Locate trails along the edges of urban development and follow existing dirt roads/trails and utility easements as much as possible.</li> <li>c. Trails should not be paved, and trail widths should be minimized, except for the streetscape trail.</li> <li>d. Existing jeep trails and firebreaks that are proposed to be included in the trail system will be converted to trails. Existing jeep trails that are not identified as trails within the Precise Plan area shall be naturally revegetated and will not be considered trails. Portions of existing firebreaks not identified as trails by the Precise Plan shall be artificially revegetated and will not be considered trails. Existing firebreaks located on the City-owned parcel will not be revegetated.</li> </ul>	<p>The MPU includes a park signage program that would support provision of clear signage. Various MPU policies are proposed that support development of trails and park amenities in the least sensitive areas of the MHPA, following existing disturbed areas. The MPU includes various recommendations for closure and restoration of existing trails within the West Sycamore area consistent with the Rancho Encantada Precise Plan.</p>	<p>Consistent</p>

## Issue 2: Development Regulations Consistency

*Would implementation of the Plans and associated discretionary actions conflict with the density calculations, design standards, use restrictions, and any other development regulations of the City's LDC related to the applicable zoning regulations and as a result, cause an indirect or secondary environmental impact to occur?*

Subsequent projects implemented in accordance with the Plans would not conflict with the applicable zoning regulations of the City's LDC. Subsequent projects contemplated by the MPU include trail improvements, picnic and shade areas, restrooms, parking areas, and interpretive overlooks; the NRMP identifies management actions that would also be considered subsequent projects, such as weeding, installation of exclusionary fencing, and biological surveys.

Zoning within the study area includes a mix of Agriculture, Open Space, Residential, Commercial, and Industrial designations. The Municipal Code's Residential zone allows passive recreation as the primary use. The Plans do not propose any changes to the current zoning.

Within the Agriculture, Open Space, and Industrial Zoning categories, passive recreation is allowed as the primary use. In the Commercial zone, passive recreation is not allowed as the primary use. Within all these zones, passive recreation can be allowed as an accessory use. Therefore, implementation of the Plans and associated discretionary actions would not conflict with the applicable zoning regulations, and impacts would be less than significant.

The MPU proposes to add two expansion areas to the Park—East Elliott and West Sycamore—that would bring the Park's total area to approximately 9,780 acres. However, future land acquisitions within the East Elliot area would be required in order to fully implement this area into the Park. Expansion of the Park's boundaries would occur within areas subject to the Mission Trails Design District Ordinance (MTDDO). The MTDDO (LDC Chapter 13, Article 2, Division 12) provides design guidelines, subdivision, zoning, and other land use controls to ensure development is compatible with the edge of the Park. For Park expansion areas (West Sycamore and East Elliott areas), development within the areas surrounding these Park expansion areas would be subject to the supplemental regulations of the MTDDO as specified in Table 132-12A, Mission Trails Design District Applicability. Development subject to these regulations shall comply with the design criteria and standards of the Mission Trails Design Guidelines in the Land Development Manual. Implementation of the Plans would not conflict with the MTDDO because development surrounding existing Park areas would continue to be subject to these regulations. Additionally, development surrounding future Park areas would also be subject to these same regulations. Thus, implementation of the Plans and associated discretionary actions would not result in conflicts with the MTDDO and impacts would be less than significant.

In most cases, subsequent projects implemented in accordance with the Plans would be subject to discretionary review by the City, as well as project-level CEQA environmental review in accordance with CEQA Guidelines Section 15168. This would occur when applications to construct are submitted to the City. Therefore, the future development of facilities within the Park in compliance with the Plans would not be in conflict with the Municipal Code.

The SFHA and Storm Water Regulations within the LDC are analyzed within Section 5.8, Hydrology and Water Quality, of this Program Environmental Impact Report (PEIR). The Mitigation Framework outlined therein sets forth a process to ensure subsequent projects implemented in accordance with the Plans would comply with these regulations.

### **a. ESL Regulations**

Environmentally sensitive lands (e.g., sensitive biological resources, steep hillsides, historical resources) occur within the proposed MPU area. Implementation of the Plans and associated discretionary actions would be subject to ESL Regulations where development would impact sensitive biological resources, steep hillsides, or SFHA. Policies and recommendations contained within the Plans would minimize impacts to ESL and any subsequent projects within the Park subject to ESL regulations would require a Process Four SDP that would require consistency with the Plans and incorporation of any required mitigation for impacts related to ESL (SDMC Section §143.0150).

Any future development proposed on environmentally sensitive lands would be subject to the City's ESL Regulations (Chapter 14, Article 3, Division 1), which require future projects demonstrate the proposed development site is physically suitable for the proposed use and that it would minimize disturbance to natural landforms and not increase flood hazards. In the event a subsequent project is considered for a deviation to the ESL Regulations, supplemental findings would be required prior to approval in order to show that development would not result in an additional public safety threat or extraordinary public expense, or create a public nuisance.

Pertinent policies contained in the ESL Regulations that are implemented and supported through proposed policies within the Plans include avoidance of any clearing, grubbing or grading within the breeding season of the southwestern willow flycatcher, least tern, cactus wren, least Bell's vireo, or coastal California gnatcatcher. Additionally policies within the Plans support avoidance and/or minimization of impacts to sensitive biological resources and wetlands and additionally support enhancement of habitat including any wetlands and riparian habitats. Thus, implementation of the Plans and associated discretionary actions would not conflict with ESL Regulations and impacts would be less than significant.

### **b. Historical Resources Regulations**

Implementation of the Plans and associated discretionary actions would be subject to Historical Resources Regulations where development would have the potential to impact historical resources. As discussed in Section 5.6, Historical Resources, of this PEIR, the MPU includes management recommendations for protection of cultural resources while providing recreational opportunities. Subsequent projects implemented in accordance with the MPU and associated discretionary actions would be subject to discretionary review and further environmental review under CEQA, including compliance with Historical Resources Regulations, and would be reviewed in accordance with Mitigation Framework MM-HIST-1a and MM-HIST-1b in Section 5.6 Historical Resources. Thus implementation of the Plans and associated discretionary actions would result in a less than significant impact related to consistency with Historical Resources Regulations and associated land use impacts would be less than significant.

### Issue 3: Environmental Plan Consistency

*Would implementation of the Plans and associated discretionary actions result in a conflict with adopted environmental plans, including the City of San Diego's MSCP Subarea Plan and MHPA adopted for the purpose of avoiding or mitigating an environmental effect for the area?*

#### **a. MSCP Subarea Plan**

Overall recommendations contained within the MPU directly reflect goals of the MSCP Subarea Plan. For example, the MPU contains a general recommendation to implement the habitat and species-specific management recommendations contained in the NRMP and includes a planning recommendation to implement and update the NRMP as required to ensure continued compliance with the City of San Diego MSCP Subarea Plan. Thus, implementation of the Plans would directly support implementation of the MSCP Subarea Plan and potential impacts related to consistency with the MSCP Subarea Plan would be less than significant.

#### **b. MHPA Consistency**

##### ***Land Use Compatibility***

As designated in the Subarea Plan, the MHPA is the permanent preserve area for habitat conservation. Overall, the MHPA within the study area was configured to support sensitive habitats and significant populations of Subarea Plan covered species known to exist at that time.

The Plans are consistent with the designated MHPA preserve area and only propose subsequent projects that would be allowable within the MHPA as outlined in the MSCP Subarea Plan. Compatible land uses are outlined in Section 1.4.1 and Section 1.4.2 of the MSCP Subarea Plan and include: (1) existing uses, (2) public access and recreation, (3) infrastructure, scientific and biologic activities, and (4) emergency, safety and police services. The MSCP provides specific requirements relating to the implementation of these allowed uses within the MHPA. The subsequent projects implemented under the Plans would either consist of public access/recreation projects (MPU) or scientific and biological activities (NRMP). Therefore, impacts related to land use compatibility within the MHPA would be less than significant.

##### ***Land Use Adjacency Guidelines***

The MHPA has been designed to maximize conservation of sensitive biological resources, including sensitive species. When land is developed adjacent to the MHPA, there is a potential for secondary impacts that may degrade the habitat value or disrupt animals within the preserve area. These secondary effects of development may include habitat insularization, drainage/water quality impacts, lighting, noise, exotic plant species, nuisance animal species, and human intrusion. These impacts could be short-term resulting from construction activities, or long-term. Short-term construction impacts could result in disruption of nesting and breeding thus affecting the population of sensitive species. To address these concerns, the MSCP includes a set of MHPA Land Use Adjacency Guidelines that are to be evaluated and implemented at the project level.

Indirect effects can occur wherever development and human activity is adjacent to natural areas. These effects include those due to increased runoff, trampling and removal of plant cover due to hiking, biking, and other human activities, increased presence of toxins, redirection or blockage of wildlife movement, or increased levels of non-native and invasive plants. These indirect effects could reduce the quality of the MHPA. Subsequent projects implemented in accordance with the Plans which are within and/or adjacent to the MHPA would be required to incorporate the MHPA Land Use Adjacency Guidelines (see Mitigation Framework LU-1 below) into the design of projects in order to reduce potential indirect impacts to the preserve from new development.

Management actions contemplated by the NRMP (such as weeding, revegetation, etc.) would not conflict with the MHPA Land Use Adjacency Guidelines. These actions have been developed to specifically enhance sensitive habitat for sensitive plant and wildlife species. No impact would occur. However, subsequent projects implemented in accordance with the MPU would introduce additional recreational uses within or adjacent to the MHPA. Impacts from these future uses would be considered significant, and mitigation is required (**Impact LU-1**).

### ***Management Directives***

Section 1.5.2 of the City's MSCP Subarea Plan provides general management directives which apply to all areas within the MHPA. These general directives provide guidance on access and recreation within open space areas, including the Park. Priority directives include:

- Install sufficient signage and barriers identifying access to the MHPA
- Locate trails, overlooks, and staging areas in least-sensitive areas in MHPA
- Avoid paving trails
- Minimize recreational trail widths
- Limit equestrian trails near sensitive resources
- Prohibit recreational off-road and cross county access to MHPA
- Remove homeless camps from habitat areas
- Regularly maintain equestrian trails to remove manure

Sections 1.2.2, 1.2.4, 1.5.1, 1.5.6, and 1.5.8 of the City's Subarea Plan provide guidelines for MHPA compliance and specific management recommendations within the Park. MTRP management directives, required for the lifespan of the MPU and NRMP and developed in compliance with all relevant MSCP Subarea Plan directives, are incorporated into the MPU and NRMP as outlined below.

#### **Priority 1 (MSCP required directives):**

- 1) Prepare an NRMP for the Park to preserve and protect natural resources while encouraging public use and implementation of the Master Plan Update.
  - MPU: MSCP directive satisfied by implementation of MPU.
  - NRMP: MSCP directive partially satisfied by the completion of the NRMP.
- 2) Maintain and clearly demarcate trails around the visitor center and other areas of high public use to minimize habitat destruction.

- High-use trails surrounding the Visitor Center are currently demarcated with signage and maintained by MTRP staff.
  - MPU: General Facility Recommendations #6— Maintain and repair existing signage on an as-needed basis.
  - MPU: General Habitat/Species Recommendations #3— Construct wildlife-compatible fencing where necessary to protect sensitive species, habitats, and cultural/historic resources.
  - MPU: General Habitat/Species Recommendations #6 — Close unauthorized, user-created trails where appropriate to reduce habitat fragmentation and encroachment.
  - MPU: General Management Recommendation #13 — Develop and implement a public information and education program focused on the requirements of the MSCP relative to the management and use of different areas of the Park.
- 3) Limit future equestrian trails to specified trails which minimize trail edge disturbances and are no greater than 25 percent gradient.
- MPU: Proposed equestrian trails have been designed to minimize edge disturbances, and are no greater than 25 percent gradient.
  - MPU: Trails analysis discussion (pp. 4-12-13) regarding both steep and fall-line trails.
  - MPU: Recommendations introduction (p. 5-1) regarding MSCP requirements, safety, and sustainability as foundation for all recommendations.
  - MPU: General Recreation Recommendations #1— Comply with the City's current Trail Policies and Standards per the current *City of San Diego Consultants Guide to Park Design and Construction* for all new and rerouted trails. Utilize other state and national sustainable trail guidelines as supplements to the City's Standards.
- 4) Seasonally restrict, if necessary, areas along the San Diego River, including riparian restoration areas (except along established trails), to prevent disturbance of breeding areas.
- MPU: Recommendations introduction (p. 5-2): As additional environmental surveys are conducted and management actions implemented, conflicts between resource management objectives and recreational use may arise. When these conflicts are identified, temporary, seasonal, or permanent closures of the recreational use may be required. If permanent closure is required, then an alternate location or route for the recreational use should be identified and implemented.
- 5) As envisioned in the Master Development Plan, revegetate areas with eroded or denuded slopes for slope stability and habitat enhancement.
- NRMP: Since the most recent fire in 2003, large vegetated areas in MTRP denuded by fire and fire breaks created to contain fire have naturally been recolonized by native and

- exotic species. As a result, there are few large areas in the Park where erosion poses a threat to slope stability, water quality, and/or sensitive habitats. One significant departure from this trend is continuing erosion and channel degradation in the West Sycamore area. Erosional flows emanating from a previously graded construction pad and a utility road may be impacting a population of willow monardella (*Monardella vimnea*), an MSCP covered species. Plans to control erosion within the West Sycamore area are found in Section 4.2.4.5.
- MPU: Habitat/Species Recommendations — Conduct habitat restoration or revegetation activities within disturbed areas as needed.
- 6) Incorporate adequate setbacks into future plans to develop an equestrian center near the San Diego River in order to minimize impacts associated with brown-headed cowbird (*Molothrus ater*) parasitism. Establish a cowbird trapping program to minimize effects on the least Bell's vireo (*Vireo bellii pusillus*) and other song birds.
- NRMP: The East Fortuna Staging Area was dedicated in 2004. A cowbird trapping program is ongoing, as detailed in Section 4.3.4.4.
  - MPU: General Habitat/Species Recommendation #15 — Coordinate with regional efforts (USGS Western Ecological Research Center) to refine and develop cowbird trapping optimization studies.
  - MPU: General Habitat/Species Recommendation #16 — Plan and implement a cowbird trapping program along the San Diego River as deemed necessary by City biologists.
- 7) Minimize lighting for the campground, and collect garbage frequently to reduce nuisance wildlife (raccoons, opossums, skunks, and ravens).
- MPU: Currently, lighting is minimized at the Kumeyaay campground. No permanent artificial lighting is used at the campground except at the entry station. Phase 2 of the campground improvements has been removed from the MPU.
- 8) Establish signs to direct access and provide educational information at the periphery of sensitive resource areas and at points of access. Post signs to prohibit campfires, pets, firearms, and camping (except where allowed). Also post road signs to identify wildlife corridors to help reduce road kills.
- NRMP: Access and exclusion signage has been proposed for new or rerouted trails adjacent to sensitive resources. For details see Sections 4.2.1, 4.2.2, 4.2.5, 4.3.1, 4.3.2, and 4.3.3.
  - MPU: General Facility Recommendations #6 — Maintain and repair existing signage on an as-needed basis.

- MPU: General Facility Recommendations #10 — Develop and incorporate additional interpretive signage along the major trails near interpretable features, rest stops, or overlooks.
  - MPU: General Facility Recommendations #13 — Continue to prohibit fires in the Park to reduce fire danger, except within developed fire rings at the Kumeyaay Lake Campground, the East Fortuna Staging Area, and Lake Murray.
  - MPU: General Habitat/Species Recommendations #3— Construct wildlife-compatible fencing where necessary to protect sensitive species, habitats, and cultural/historic resources.
  - MPU: General Habitat/Species Recommendations #6 — Close unauthorized, user-created trails where appropriate to reduce habitat fragmentation and encroachment.
  - MPU: General Management Recommendation #13 — Develop and implement a public information and education program focused on the requirements of the MSCP relative to the management and use of different areas of the Park.
- 9) Protect all populations of San Diego ambrosia (*Ambrosia pumila*) in the private property area immediately to the east of the Kumeyaay Lake campground. Explore methods to protect and enhance the San Diego ambrosia population, such as transplanting to more remote areas or the use of split-rail fencing.
- NRMP: The population of San Diego ambrosia within the Park has been the subject of previous and ongoing research designed to answer questions that will optimize future management. The latest science has been used to design goals and objectives for San Diego ambrosia in this document. In addition, a San Diego ambrosia transplantation site was identified within the Park.
  - MPU: General Habitat/Species Recommendations #2— Protect populations of identified sensitive plants including: San Diego ambrosia. Reroute existing and proposed trails to avoid impacts.
  - MPU: General Habitat/Species Recommendations #7 — Implement the adopted MTRP San Diego Ambrosia Management Plan.
  - MPU: General Habitat/Species Recommendations #20 — Construct or repair and maintain wildlife compatible exclusionary fencing and signage around populations of San Diego ambrosia as necessary.
  - MPU: Park Area Specific Recommendations: Cowles Mountain CM-H3 — Allow the transplantation of San Diego ambrosia from areas outside the Park to the identified restoration site. Construct and maintain wildlife compatible exclusionary fencing and signage as required.

- Mission Gorge MG-H1 — Use the closed trail (MG-R11) area to expand the population of San Diego ambrosia.
  - Mission Gorge-MG-R11 — Close and restore the western Kwaay Paay access trail from the Old Mission Dam staging area to avoid direct conflicts with the protection of San Diego ambrosia.
  - Fortuna Mountain FM-R44 — Close and restore an unauthorized, user-created trail within the grasslands area that encroaches on San Diego ambrosia habitat.
- 10) (East Elliott) Implement programs to educate future adjacent landowners pursuant to the general adjacency management guidelines in Section 1.5.2.
- East Elliott EE-P1 — Allow the development of private property holdings within East Elliott consistent with the community plan, MSCP requirements, and the Mission Trails Design District Ordinance.
- 11) Preserve 90 percent of the population of San Diego ambrosia at MTRP.
- NRMP: The population of San Diego ambrosia at the Park is conserved. Future plans which may have impacted San Diego ambrosia (Phase II of the Kumeyaay Lake Campground development) have been removed from the Plan (Section 4.2.2.3).
- 12) Monitor areas with a history of invasive species, such as artichoke thistle (*Cynara cardunculus*), tamarisk (*Tamarix* sp.), and giant reed (*Arundo donax*) for reinvasion.
- NRMP: Giant reed and tamarisk are currently monitored within the San Diego River for reinvasion (Section 4.3.4.5). A growing population of artichoke thistle was observed within the West Sycamore area. Artichoke thistle control measures are detailed in Section 4.3.5.4.
  - MPU: General Habitat/Species Recommendations #8 — Eradicate non-native invasive species from the Park whenever feasible. Control species that cannot be eradicated on a regular basis to prevent significant spreading. Restore native species and habitats, including vernal pool species, throughout the Park utilizing local seed/nursery stock when available.
  - MPU: General Habitat/Species Recommendations #14— Conduct surveys for giant reed biannually (or six months after major flood events) to identify, map, and remove small infestations.
  - West Sycamore Habitat/Species Recommendation WS-H1 — Plan and implement a removal and control program for artichoke thistle.

Therefore, the Plans are consistent with the General Management Directives for the MHPA and the Specific Management Directives for the Park as outlined within the MSCP Subarea Plan. Impacts would be less than significant.

## 5.1.5 Significance of Impacts

### Issue 1: Land Use Plan Conflict

As identified in the above analysis and consistency tables, implementation of the Plans would not conflict with any applicable land use plan, goal, or objective of the General Plan, Municipal Code, and the Navajo, Tierrasanta, and East Elliott Community Plans, or the Rancho Encantada Precise Plan. As City planning documents, there is an emphasis on consistency. Preparation of the NRMP for the Park was in direct response to the need for consistency with the MSCP. Therefore, technical amendments to the community plans (Tierrasanta, East Elliott, Navajo, and Rancho Encantada) required to implement the Plans would result in impacts that would be less than significant.

### Issue 2: Development Regulations Consistency

Subsequent projects implemented in accordance with the Plans would not conflict with any aspects of the LDC. None of the contemplated subsequent projects would change any land use designation or intensity, and would be allowable uses within all zoning categories of the study area. Other regulations within the LDC (ESLs, SFHA, etc.) are analyzed throughout this PEIR, as applicable. Impacts would be less than significant.

#### a. ESL Regulations

Policies and recommendations contained within the Plans would be supportive of the intent of ESL Regulations and would not conflict with implementation of ESL Regulations. Proposed policies within the Plans support avoidance and/or minimization of impacts to sensitive biological resources including wetlands and riparian areas (e.g., the San Diego River). Subsequent projects implemented in accordance with the MPU and associated discretionary actions would be subject to discretionary review and further environmental review under CEQA and would be reviewed in accordance with MM-BIO-1 through MM-BIO-3 in Section 5.5, Biological Resources; and MM-HYD/WQ-1 and MM-HYD/WQ-2 in Section 5.8, Hydrology and Water Quality. Thus, implementation of the Plans and associated discretionary actions would not conflict with ESL regulations and impacts would be less than significant.

#### b. Historical Resources Regulations

Subsequent projects implemented in accordance with the MPU and associated discretionary actions would be subject to discretionary review and further environmental review under CEQA and would be reviewed in accordance with Mitigation Framework MM-HIST-1a and MM-HIST-1b in Section 5.6 Historical Resources. Implementation of the Plans and associated discretionary actions would not result in any conflicts with Historical Resource Regulations of the LDC.

## Issue 3: Environmental Plan Consistency

### a. MSCP Subarea Plan

Implementation of the Plans would support the goals of the MSCP Subarea Plan and support implementation of the MSCP Subarea Plan. Thus, potential impacts related to consistency with the MSCP Subarea Plan would be less than significant.

### b. MHPA Consistency

#### *Land Use Compatibility*

The MSCP provides specific requirements relating to the implementation of these allowed uses within the MHPA. As the subsequent projects implemented under the Plans would either consist of public access/passive recreation projects per Section 1.4.1 of the MSCP Subarea Plan (MPU) or scientific and biological activities (NRMP), impacts would be less than significant.

#### *Land Use Adjacency Guidelines*

Management actions contemplated by the NRMP (such as weeding, revegetation, etc.) would not conflict with the MHPA Land Use Adjacency Guidelines per Section 1.4.3 of the MSCP Subarea Plan. These actions have been developed to specifically enhance sensitive habitat for sensitive plant and wildlife species. No impact would occur. However, subsequent projects implemented in accordance with the MPU would introduce additional recreational uses within or adjacent to the MHPA. Impacts would be significant (**Impact LU-1**).

#### *Management Directives*

The Plans are consistent with the General Management Directives for the MHPA and the Specific Management Directives for the Park as outlined within the MSCP Subarea Plan (Section 1.5). Impacts would be less than significant.

## 5.1.6 Mitigation Framework

Implementation of the following mitigation framework would reduce **Impact LU-1** to less than significant:

**MM-LU-1:** Subsequent projects implemented in accordance with the MPU which are within or adjacent to designated MHPA areas shall comply with Section 1.4 Land Use Considerations and Section 1.5 Framework Management Plan of the MSCP in terms of land use, drainage, access, toxic substances in runoff, lighting, noise, invasive plant species, grading, and brush management requirements. Mitigation measures include, but are not limited to: sufficient buffers and design features, barriers (rocks, boulders, signage, fencing, and appropriate vegetation) where necessary, lighting directed away from the MHPA. The project biologist for each subsequent project would identify specific mitigation measures needed to reduce impacts to below a

level of significance. Subsequent environmental review would be required to determine the significance of impacts from land use adjacency and compliance with the Land Use Adjacency Guidelines of the MSCP. Prior to approval of subsequent projects in an area adjacent to a designated MHPA, the City's Environmental Designee (ED) shall identify specific conditions of approval in order to avoid or to reduce potential impacts to the MHPA.

Specific requirements shall include:

- **Drainage:** All new and proposed parking areas and developed areas in and adjacent to the preserve would not drain directly into the MHPA. All developed and paved areas would prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA. This can be accomplished using a variety of methods including natural detention basins, grass swales, or mechanical trapping devices. These systems would be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance would include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.
- **Toxics:** Land uses, such as recreation and agriculture, that use chemicals or generate byproducts such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures would include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance would be provided. Where applicable, this requirement would be incorporated into leases on publicly owned property as leases come up for renewal.
- **Lighting:** Proposed lighting of all developed areas adjacent to the MHPA would be directed away from the MHPA. Where necessary, development would provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.
- **Noise:** Uses in or adjacent to the MHPA would be designed to minimize noise impacts. Berms or walls would be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas would incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures would also be incorporated for the remainder of the year.

- **Barriers:** New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.
- **Invasives:** No invasive nonnative plant species would be introduced into areas adjacent to the MHPA.
- **Brush Management:** New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) would be set back from slope edges to incorporate brush management areas on the development pad and outside of the MHPA. No residential development would occur specifically under the Plans; therefore, this would not be required.
- **Grading/Land Development:** Manufactured slopes associated with site development would be included within the development footprint for projects within or adjacent to the MHPA.

### 5.1.7 Significance after Mitigation

Although subsequent projects implemented in accordance with the MPU have the potential to conflict with the MHPA Land Use Adjacency Guidelines, future projects would be required to implement the Mitigation Framework adopted in conjunction with certification of this PEIR, including **MM-LU-1** detailed above. The Mitigation Framework requires site-specific environmental review, analysis of potential impacts, and recommendations for mitigation to reduce significant impacts related to consistency with the City's MHPA to below a level of significance.

## 5.2 Visual Effects and Neighborhood Character

This section discusses the potential visual quality impacts that could result from implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park) and associated discretionary actions, including to views both from and of the Park. This analysis partially relies on the visual resources technical report prepared for the Project (Appendix B), the MPU, and secondary source information. This section also describes the regulatory setting applicable to subsequent projects and the existing visual landscape of the study area.

### 5.2.1 Regulatory Framework

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program. This program was created in 1963 by the California legislature to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway Program includes a list of highways that are eligible for designation, or have been designated, as scenic highways. A highway may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view (Caltrans 2014).

The City of San Diego's (City's) Land Development Code (LDC) includes lighting, glare, height, bulk, and architectural regulations. The LDC also includes the Mission Trails Design District Ordinance and Design Manual, which implements an overall policy that new development in specified areas outside of the Park boundaries should be developed to relate to the Park and existing landscaping in the Park (City of San Diego 2013c). While the Mission Trails Design District Ordinance and Design Manual do not apply to projects or activities set forth in the Plans; they are further analyzed in Section 5.1, Land Use, of this Program Environmental Impact Report (PEIR).

### 5.2.2 Environmental Setting

#### 5.2.1.1 Existing Visual Landscape

##### a. Landform

Study area landforms include the low-lying San Diego River that cuts through the steep slopes of Mission Gorge. The visually prominent Cowles Mountain is a regional landmark, visible from surrounding areas due to its height. The Lake Murray area is dominated by the 200-acre reservoir and associated active recreational uses. Further north is the Fortuna Mountain area that includes the prominent ridgeline of Fortuna Mountain flanked by a large valley and plateau to its west, and a complex of north-south canyons to its east. The East Elliott area is composed of canyon complexes, along with the Sycamore

Landfill. The West Sycamore area is undeveloped with sloping terrain and is separated from the other areas by Marine Air Corps Station Miramar.

## **b. Scenic Resources and Views**

For purposes of this analysis, the entire study area is considered a scenic resource, including the prominent ridgeline that connects Cowles and Fortuna Mountains and the river valleys, canyons, and natural features that comprise the Park. Public views are views from public resources such as public open space and public parks and schools, municipal buildings, and public roadways. Significant public viewing resources are located within the Park. Cowles Mountain summit is the highest point in the Park and the City of San Diego, offering a 360 degree view of San Diego County. There are numerous viewing opportunities of the Park from the surrounding communities due to the elevation differential between surrounding communities and the higher elevations of the Park.

## **c. Scenic Highways**

One scenic highway runs through the Park. In 2016, State Route (SR) 52 was designated as a State Scenic Highway between Santo Road and Mast Boulevard. This route runs between the Fortuna Mountain and East Elliott areas. Notable scenic features of SR-52 include Mission Trails Summit, which divides the coastal plain from inland valley, and Cowles Mountain, the highest point in the City.

The next nearest designated State Scenic Highway is SR-125, just south of Interstate 8 (I-8), located approximately 2 miles east of Lake Murray. This scenic highway encompasses a 1.8-mile stretch of SR-125 from SR-94 to I-8 near La Mesa.

The State Scenic Highway Program describes this route:

The traveler on this portion of SR-125 is given a commanding view of the scenic, rolling terrain of the corridor. This is primarily the result of the freeway being somewhat above the immediately adjacent terrain with the land sloping generally upwards on both sides. The overview is pleasing, allowing the traveler to look out upon attractive residential areas. Mount Helix, with its elevation, is the dominant feature within the corridor. Beyond the corridor, distant views of Cowles Mountain to the northwest, and to Dictionary Hill and San Miguel Mountain to the south and southeast, are particularly significant to the scenic character of the corridor.

## **d. Community Character**

The Park is generally characterized by its open space, natural vegetation, slopes, and associated recreational uses. The south end of Mission Gorge contains the Park's Visitor and Interpretive Center that receives numerous visitors annually, hosting 85,088 visitors in 2011. Recreational uses in this area include family and group picnic areas, park concessions, a bike skills site, and an outdoor amphitheater. The Lake Murray area is characterized by active recreational uses centered around Lake Murray and Alvarado Point. The paved maintenance road along the edge of the lake is heavily used by walkers, runners, cyclists, and in-line skaters. The Cowles Mountain and Fortuna Mountain areas are characterized by their largely undeveloped state, with recreational activity focused on hiking and

mountain bike trails and equestrian use at Fortuna Mountain. The East Elliott area is undeveloped and characterized by the presence of unauthorized trails and the Sycamore Canyon Landfill. The West Sycamore area contains trails and disturbance from a prior industrial use.

## 5.2.2 Significance Determination Thresholds

Thresholds used to evaluate potential adverse impacts to visual resources or neighborhood character are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G and the City of San Diego CEQA Significance Determination Thresholds (2016). Thresholds are modified from the City's CEQA Significance Determination Thresholds to reflect the programmatic analysis for the Plans and associated discretionary actions. Impacts related to visual quality would be significant if implementation of the Plans and associated discretionary actions would:

1. Result in a substantial change to the natural topography or other ground surface relief features;
2. Result in the blockage of public views from designated open space areas, roads, or to any significant visual landmark or scenic vistas;
3. Adversely affect the existing visual character of the City or community plan areas, particularly with respect to views from major roadways, public viewing areas, vistas, or open spaces;
4. Result in incompatibility with the surrounding development in terms of bulk, scale, materials, or style; or
5. Result in substantial light or glare which would adversely affect daytime or nighttime views in the area.

## 5.2.3 Impact Analysis

### Issue 1: Landform Alteration

*Would implementation of the Plans and associated discretionary actions result in a substantial change to the natural topography or other ground surface relief features?*

The City's 2016 Significance Determination Thresholds provide additional guidance for determining potentially significant visual quality impacts related to landform alteration. As discussed in the City's thresholds document, impacts related to landform alteration are considered significant if the implementation of the recommendations in the Plans would:

1. Involve grading in excess of 2,000 cubic yards per graded acre or grade or grading of a smaller volume in highly scenic or environmentally sensitive areas, and the project would meet one or more of the following conditions:
  - a. Not be in compliance with the Environmentally Sensitive Lands Regulation (LDC Chapter 14, Article 3, Division 1).
  - b. Create manufactured slopes higher than ten feet or steeper than 50 percent grade.
  - c. Result in a change in elevation of steep hillsides as defined by the Section 113.0103 of the Municipal Code from existing grade to proposed grade of more than five feet by either

- excavation or fill, unless the area over which excavation or fill would exceed five feet is only at isolated points on the site.
- d. The project includes mass terracing of natural slopes with cut or fill slopes in order to construct flat-pad structures.

As discussed in Chapter 3, Project Description, the Plans do not propose specific development at this time. Rather, they provide for the management of important natural resources while also allowing for the development of trails and other recreational amenities within the Park. The NRMP would have no impact with regards to landform alteration, as the management actions contemplated therein (such as hand weeding, exclusion fencing, and erosion control) would not result in excessive grading or the alteration of hillsides. The MPU is analyzed below.

Subsequent projects contemplated by the MPU are not anticipated to exceed any of the grading quantities that would constitute a significant landform alteration; however, some may involve some degree of landform alteration within scenic and environmentally sensitive areas.

For example, recreational amenities contemplated by the MPU include shade structures, picnic facilities, signage, benches, and trash receptacles. These features would not require extensive grading, would be placed on existing grades, and thus would not substantially change the natural topography in the areas where they would be placed.

Other projects contemplated by the MPU include off-street parking located at Barker Way (Recommendation CM-F1), Golfcrest Drive off Mission Gorge Road (Recommendation CM-F2), and east of Father Junipero Serra Trail and the existing visitor center parking area (Recommendation MG-F6). While grading would be required to create a suitable parking area surface with proper drainage, the areas are expected to generally conform to existing topography, and their construction would not cause a substantial change to natural topography.

Trail management recommendations—such as revegetation along trail edges, regrading, signage, and fences—would similarly not require significant landform alteration as trails would follow the natural contours of the land. Associated signage and fencing would not require visible landform modification. New trails conceptually identified by the MPU would be narrow and would follow contours, resulting in minimal changes to the existing topography. Overall, potential impacts due to landform alteration would be less than significant.

## Issues 2 and 3: Public Views

*Would implementation of the Plans and associated discretionary actions result in the blockage of public views from designated open space areas, roads, or to any significant visual landmark or scenic vistas? Would Plans adversely affect the existing visual character of the City or community plan areas, particularly with respect to views from major roadways, public viewing areas, vistas, or open spaces?*

The City's 2016 Significance Determination Thresholds include guidelines for determining potentially significant visual quality impacts related to view changes. As discussed in the City's thresholds document, impacts on public views are considered significant if subsequent projects contemplated by the Plans would:

1. Substantially block a view through a designated public view corridor shown in the General Plan or an adopted community plan.
2. Cause substantial view blockage from a public viewing area of a public resource (such as mountains) that is considered significant by the applicable community.
3. Exceed the allowed height or bulk regulations and this excess results in a substantial view blockage from a public viewing area.

The management actions identified in the NRMP would not result in the blockage of public views, nor would they adversely affect the existing visual character of open spaces or Scenic Highway SR-52. Actions such as weed removals, exclusion fencing, and transplantations would improve the aesthetics of open space areas by protecting sensitive biological resources, while also not substantially blocking public views. The MPU is analyzed below.

Views to and from Scenic Highway SR-52 is the primary consideration of this analysis. Various MPU Recommendations would serve to improve views to and from SR-52. Trail closures and revegetation recommendations for unpaved utility roads would generally improve the overall visual quality by increasing visual continuity of the Park's natural vegetation that can be seen from SR-52. For example, Recommendation CM-H1 would reduce the width of sections of a service road within the Cowles Mountain area that have become excessively wide. Implementation of this and other related MPU recommendations would generally result in narrower trails and would generally serve to improve the visual character of the study area.

The development of recreational amenities such as shade structures, picnic facilities, signage, benches, and trash receptacles are also contemplated by the MPU. Depending on their placement, these features may be visible from SR-52, other public roads, open space areas in the Park, and neighboring residential areas; however, these amenities would be small in scale, particularly when compared to the landforms surrounding them, and would not block views to or from SR-52 and other significant visual landmarks or scenic vistas. Furthermore, these amenities would be placed in areas along trails used by Park visitors to access scenic vistas, such as the peak of Cowles Mountain.

Other subsequent projects may include new trails and trail reroutes. New trails would be visually similar to existing trails and unpaved utility roads, but generally would be narrower, thus less prominent. New trails developed in low-lying areas would not be highly visible from other areas of the Park or from surrounding neighborhoods and roadways or SR-52. On the other hand, proposed new trail segments along high-elevation hillsides would potentially be visible from many points, including open space areas within the Park, major roadways near the Park, and neighboring residential areas. As new trails would be narrow, have a low profile, and would follow contours, they would not block views to or from the park, or to and from open spaces, and would be visually compatible with the park's existing features and trails.

In addition, the City's Park and Recreation Department maintains a Consultant's Guide to Park Design and Development that provides guidelines for the design and development of City parks (City of San Diego 2011). Appendix K of this guide provides detailed requirements and standards for trail construction such as tread width, and maximum grade and cross slope that would be used during design and implementation of the MPU recommendations for trails.

Parking areas contemplated by the MPU would not be expected to obstruct views due to their low profile. The areas would be visible from higher-elevation open space areas in the Park, but would be similar in appearance to nearby roadways. For example, the parking area near Barker Way (Recommendation CM-F1) would be near a residential neighborhood, but would be located at a slightly higher elevation than the abutting street, which would reduce its visibility from the neighboring residential area and roadways. Although some other parking areas identified by the MPU would be visible from open space areas, they would not block views to or from roads, open space areas, or any significant visual landmarks or scenic vistas due to their low profile.

The Park is visible from major roadways including SR-52, I-8, and SR-125. The higher elevations of the Park are visible from other major roadways, but at a more distant location such that implementation of future projects would be imperceptible to a motorist. SR-52 has been designated as a State Scenic Highway between Santo Road and Mast Boulevard. Future projects would be imperceptible to motorists on SR-52.

As previously discussed, subsequent projects contemplated by the MPU would generally be of such a scale and profile that they would not obstruct views of the Park from passing motorists, neighboring residents, or other potential viewers. Parking areas would not be within the viewshed of passing motorists and proposed structures would be of such a scale that they would blend in with existing park features and would be dominated by the larger scale natural topographical features. The potential viewshed impact for passing motorists is further reduced by the speed of travel and short viewing times.

The MPU contemplates several subsequent projects beyond those previously detailed, which may be visually noticeable. The visual character and viewshed impacts of these recommendations are discussed in Table 5.2-1.

<b>Table 5.2-1 Potential Viewshed Impacts of MPU Recommendations</b>	
Recommendation	Viewshed/Visual Character Impacts
LM-P3 suggests an alternative use concept for the existing golf course if the City determines it is no longer viable. The alternative use would provide active and passive recreation, family and group picnicking with meandering trails, and a linear open play area connecting Lake Murray with Cowles Mountain. The City of San Diego Public Utilities Department would need to be compensated for the conversion of the property to public parkland and would retain facility easements for the various utilities within the area.	If implemented, the vegetation and physical amenities within the golf course would either remain or be replaced with visually similar facilities, and the visual effect would be minimal.

<b>Table 5.2-1 Potential Viewshed Impacts of MPU Recommendations</b>	
Recommendation	Viewshed/Visual Character Impacts
LM-H2 suggests the removal of dead, diseased and small eucalyptus trees, and the replacement of eucalyptus trees with native trees.	The removal of existing trees would be noticeable from within existing Park areas and potentially visible from nearby residences; however the effect would be temporary and would not substantially change the visual character of the area or significantly alter views. Native trees would have a similar visual appearance as the existing vegetation, and would similarly screen rather than block views. Native trees would likely increase the visual continuity of the area with the surrounding natural environment, and thus would be compatible in terms of bulk and scale.
CM-P1 would provide pedestrian and bicycle facilities along the portion of Mesa Road bordering the Park, if the road is extended southward to connect to Lake Murray Boulevard.	The inclusion of bicycle and pedestrian facilities would not create a substantial change compared to the installation of a roadway without pedestrian and bicycle facilities. The recommendation also suggests native landscaping along the roadway that would reduce the visual change and increase the continuity of the roadway with the visual environment of the park.
CM-F6 would modify the current communication facilities at the top of the mountain to have a less visible profile when funds are available, and technological advances allow for minimization of equipment.	Implementation of this recommendation would reduce the visual contrast of the existing communication facilities, which have from some angles an imposing profile. The result would be an improvement in the visual environment of the immediate area, and would reduce the noticeability of the antennae from afar.
MG-F8 would provide for a permanent restroom at the Old Mission Dam staging area to replace the existing portable toilets.	<p>A new comfort station/restroom would be smaller than other nearby buildings such as the visitor center building, but would be larger than the existing portable units. The restrooms would likely be situated to make use of existing flat, graded areas, without substantially changing the existing topography, and would not block public views to or from any significant visual landmarks. It would be visible from the staging area and parking area, and a portion may be visible from Father Junipero Serra Trail.</p> <p>The new facility would be similar in style and use of material as the visitor center and other facilities in the park, and therefore would better blend into the existing visual environment more than the portable facility, which visually contrasts with its surroundings. The comfort station would therefore not affect the visual character of the area, and would be compatible with the staging area and abutting open spaces. Any lighting associated with the permanent facility would be shielded and make use of cut-offs to limit impacts to night sky and reduce light spilling into adjacent habitat areas. If solar panels are used, they would be integrated into the structure's roof.</p>

<b>Table 5.2-1 Potential Viewshed Impacts of MPU Recommendations</b>	
Recommendation	Viewshed/Visual Character Impacts
MG-R4 would provide an all-weather suspension or truss pedestrian and bicycle bridge across the San Diego River near the existing crossing trail.	<p>The proposed bridge would likely have one middle truss in addition to the end supports, and generally would be designed to exclude motorized vehicles, though it may be wide enough for emergency access. A new bridge in this proposed location would generally be lower in elevation than the surrounding park areas, which would limit visibility of the bridge silhouette within the park. The bridge would be designed to minimize the footprint of the abutments, with minimal change to the natural topography. The bridge would not be visible from public roadways, but would be visible from open space areas, mostly from points at higher elevations which look down at the river gorge.</p> <p>The bridge would be a noticeable, new man-made feature in a mostly undeveloped area, but would be similar in character, design, materials, scale, and bulk to developed park features that visitors see while approaching the bridge (such as the visitor center). As such, it would not be incompatible with the surrounding development, and would not significantly affect the visual character of the area or block views. Any lights installed for safety on the bridge and bridge approach would be installed per City of San Diego night sky regulations and lit areas would be minimized to the bridge walking surface. All lights would be shielded from overspill into the adjacent natural areas.</p>
FM-F1 would allow for construction of the last phase of the East Fortuna Staging Area.	Construct the last phase of improvements at the East Fortuna Staging Area per Site Development Permit #40-0524 which includes an administrative/maintenance building and a large covered group picnic area at the East Fortuna Staging Area. This improvement was approved under a previously certified environmental document and Site Development Permit.
FM-F3 would allow for reconstruction of the Old Mission Dam overlook on the northern river bank.	Implementation of this recommendation would repair damaged existing facilities and would not create visual contrast or have a visual effect on the area.
WS-F1 would provide a restroom, ranger office, hitching posts, shade structures, and picnic tables at the West Sycamore staging area.	The proposed building(s) and facilities would be located on a previously disturbed pad and would be similar in style and material to existing buildings and equestrian facilities in the Park. The buildings would be smaller in scale than nearby residences, and may not be visible from the residential areas and roadways due to existing topography. If the features are visible from residences, they would be small scale features within a larger view and would not block or obstruct the view. Any lighting associated with the facilities would be installed per City of San Diego codes and regulations, and would be shielded to prevent night sky impacts or spills into adjacent open space or sensitive habitat.

## Issue 4: Neighborhood Character

Would implementation of the Plans and associated discretionary actions result in incompatibility *with the surrounding development in terms of bulk, scale, materials, or style?*

The City's 2016 Significance Determination Thresholds include guidelines for determining potentially significant visual quality impacts related to neighborhood character and architecture. As discussed in the thresholds, impacts are considered significant if implementation of the Plans and associated discretionary actions would:

1. Exceed the allowable height or bulk regulations and the height and bulk regulations of the existing patterns of development in the vicinity of the project.
2. Have an architectural style or use building materials in stark contrast to adjacent development where the adjacent development follows a single or common architectural theme.
3. Result in the physical loss, isolation, or degradation of a community identification symbol or landmark identified in the General Plan or applicable community plan.
4. Contrast with surrounding development or natural topography through excessive height, bulk, signage, or architectural projections.

No structures or related development would occur under the NRMP, and therefore, it would have no impact related to this issue. The MPU is analyzed below.

Several MPU Recommendations aim to ensure the Park is developed in a manner that provides a consistent design approach. These are included as Park-wide Recommendations in the MPU. For example: Park-wide Facility Recommendation 1 states: "Incorporate consistent architectural design vocabulary on any new structure with other buildings in the park and use common rooflines, basic shapes, and structural connections as unifying elements, allowing differences in materials, textures, and colors to reflect the unique character of each use and location." As another example, Park-wide Facility Recommendation 3 states: "Install and maintain simple, consistently designed park furniture – picnic tables, benches, trash receptacles, directional signs." These MPU recommendations would generally serve to ensure that subsequent projects would be in character with existing Park amenities.

As previously detailed, subsequent projects identified as MPU recommendations include shade structures, picnic facilities, and benches. The bulk, scale, materials, and style of such amenities would be similar to existing recreational amenities in the Park and would maintain the existing character. Therefore, these Park amenities would be visually compatible with surrounding park development and would not result in significant visual quality impacts related to neighborhood character and architecture.

Subsequent projects may also include new or expanded parking areas. The visual character of these areas would be similar to adjacent and nearby roads and parking areas within the surrounding communities and/or within the Park. The proposed Barker Way parking area may improve community compatibility by providing Park users a formalized off-street parking area to access the trailhead instead of parking on the residential streets.

Overall, considering the small scale and low visibility of the various structural elements included as MPU recommendations, significant visual quality impacts related to neighborhood character and architecture are not anticipated. Adherence to other Park-wide MPU recommendations would ensure a consistent architectural and design identity is maintained throughout the study area. Therefore, visual quality impacts related to neighborhood character and architecture would be less than significant.

## Issue 5: Light and Glare

*Would implementation of the Plans and associated discretionary actions shed substantial light onto adjacent, light-sensitive property or land use, or would emit a substantial amount of ambient light into the nighttime sky?*

As discussed in the City's 2016 Significance Determination Thresholds, impacts related to light and glare would be significant if:

- The project would be moderate to large in scale, more than 50 percent of any single elevation of a building's exterior is built with a material with a light reflectivity greater than 30 percent (see LDC Section 142.07330(a)), and the project is adjacent to a major public roadway or public area.
- The project would shed substantial light onto adjacent, light-sensitive property or land use, or would emit a substantial amount of ambient light into the nighttime sky. Uses considered sensitive to nighttime light include, but are not limited to, residential, some commercial and industrial uses, and natural areas.

Subsequent projects contemplated by the MPU may require lighting, in some instances, although the Park is generally closed at night (with the exception being the Kumeyaay Lake Campground).

For example, exterior lighting may be installed for parking area safety, and to illuminate signs and kiosks. Exterior lighting would be designed to comply with applicable regulations, including the City's Outdoor Lighting Regulations (LDC, Section 142.0740). The lighting is required to have cut-off shields to direct light away from open space areas and sensitive species, and avoid impact on night sky glare. New lighting may be powered with solar panels. If an individual solar panel is installed at each light standard, it would be integrated into the pole, thus minimizing its visual appearance. Each panel is designed to absorb as much light as possible, rather than reflect it.

A balance would be achieved between lighting to provide security and the absence of lighting necessary for a functional wildlife habitat. To avoid lighting impacts on sensitive species and/or aviation uses, parking areas would be evenly under-lit rather than over-lit. Lighting adjacent or in the MHPA would meet the requirements of the MSCP Land Use Adjacency Guidelines (see analysis within Section 5.1, Land Use, of this PEIR). Therefore, compliance with existing regulations regarding exterior lighting would ensure that impacts would be less than significant.

## 5.2.4 Significance of Impacts

### Issue 1: Landform Alteration

Subsequent projects contemplated by the MPU are not expected to result in a substantial change to the natural topography or other ground surface relief features that would create a significant visual impact as a result of landform modification. Recommendations for recreational amenities, parking area, and trails assume a design that would generally follow the natural contours of the land and would not require the natural topography to be significantly altered. Impacts would be less than significant.

### Issue 2 and 3: Public Views

Various MPU recommendations intend to preserve and enhance the visual environment. Considering this and the relatively small scale and low profile of the recreational amenities, park furniture, and parking areas identified by the MPU, it is not anticipated that the Project would block views of public view corridors or create substantial view blockage to or from the Park overall. Potential impacts to viewsheds, view corridors, and public viewing areas would be less than significant.

### Issue 4: Neighborhood Character

Subsequent projects contemplated by the MPU would not exceed the allowable height or bulk regulations as no large buildings or habitable structures would be implemented. Recreational amenities such as signs and picnic areas would be required to use similar materials as existing amenities, and would also adhere to the design guidelines within the MPU. No community identification symbols or landmarks would be affected by the MPU, nor would any recommendations starkly contrast with surrounding development or natural topography. Impacts would be less than significant.

### Issue 5: Light and Glare

Exterior lighting that may be required by subsequent projects contemplated by the MPU would be designed to comply with applicable regulations, including the City's Outdoor Lighting Regulations (LDC, Section 142.0740). The lighting would be required to have cut-off shields to direct light away from open space areas and sensitive species, and avoid impact on night sky glare. Impacts would be less than significant.

## 5.2.5.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation is required.

## 5.3 Air Quality

This section addresses the potential air quality impacts that would result from implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). It also discusses the regulations applicable to subsequent projects contemplated by the Plans and the existing air quality setting within the study area.

### 5.3.1 Regulatory Framework

#### 5.3.1.1 Air Quality

Poor air quality results from the emission of air pollutants from both mobile and stationary sources. Mobile sources of air pollutants include motor vehicles, construction equipment, trains, and airplanes. Motor vehicles are the San Diego region's leading source of air pollution (County of San Diego 2008). Mobile sources of air pollution are regulated by state and federal agencies, such as the California Air Resources Board (CARB) and the United States Environmental Protection Agency (U.S. EPA), through the establishment of emission standards and emissions reduction programs and regulations. Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the local air pollution control or management district, in this case the San Diego Air Pollution Control District (SDAPCD).

The state of California is divided geographically into 15 air basins for the purpose of managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. The project is located within the San Diego Air Basin (SDAB). The regulatory framework described below details the federal and state agencies that are in charge of monitoring and controlling mobile and stationary sources of air pollutants and what measures are currently being taken to achieve and maintain healthful air quality in the SDAB.

#### a. Federal Clean Air Act

The federal Clean Air Act (CAA) was enacted in 1970 (and amended several times since) for the purpose of protecting and enhancing the quality of the nation's air resources. In 1971, the federal EPA developed National Ambient Air Quality Standards (NAAQS) for six pollutants of concern: ozone (O<sub>3</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), lead, and particulate matter less than 10 microns (PM<sub>10</sub>). In 1997, the NAAQS were refined by replacing the 1-hour ozone standard with an 8-hour ozone standard and by adding a new standard for suspended particulates 2.5 microns or less in diameter (PM<sub>2.5</sub>). The current NAAQS are presented in Table 5.3-1 and represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect public health and welfare considering long-term exposure of the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties).

Table 5.3-1 Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>8</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		-		
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>8</sup>	24 Hour	No Separate State Standard		35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non- dispersive Infrared Photometry	35 ppm (40 mg/m <sup>3</sup> )	-	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	-	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		-	-	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>9</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemi- luminescence	100 ppb (188 µg/m <sup>3</sup> )	-	Gas Phase Chemi- luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	
Sulfur Dioxide (SO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	-	Ultraviolet Fluorescence; Spectro photometry (Pararosaniline Method)
	3 Hour	-		-	0.5 ppm (1,300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>10</sup>	-	
	Annual Arithmetic Mean	-		0.030 ppm (for certain areas) <sup>10</sup>	-	
Lead <sup>11,12</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	-	-	High Volume Sampler and Atomic Absorption
	Calendar Quarter	-		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>	Same as Primary Standard	
	Rolling 3-Month Average	-		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>13</sup>	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chroma- tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>11</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chroma- tography			

See footnotes on next page.

**Table 5.3-1  
Ambient Air Quality Standards**

SOURCE: State of California 2013.

ppm = parts per million; ppb = parts per billion;  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter; – = not applicable.

<sup>1</sup>California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>2</sup>National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150  $\mu\text{g}/\text{m}^3$  is equal to or less than one. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

<sup>3</sup>Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

<sup>4</sup>Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

<sup>5</sup>National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

<sup>6</sup>National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>7</sup>Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

<sup>8</sup>On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15  $\mu\text{g}/\text{m}^3$  to 12.0  $\mu\text{g}/\text{m}^3$ . The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35  $\mu\text{g}/\text{m}^3$ , as was the annual secondary standards of 15  $\mu\text{g}/\text{m}^3$ . The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150  $\mu\text{g}/\text{m}^3$  also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

<sup>9</sup>To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

<sup>10</sup>On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

<sup>11</sup>The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

<sup>12</sup>The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5  $\mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

<sup>13</sup>In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

## **b. California Clean Air Act**

The U.S. EPA allowed states the option to develop different (stricter) air quality standards. Through the California CAA signed into law in 1988, the CARB has generally set more stringent California Ambient Air Quality Standards (CAAQS) on the seven criteria pollutants as shown in Table 5.3-1.

The California CAA additionally requires that air quality management districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures and the following:

- Demonstrate the overall effectiveness of the air quality program;
- Reduce non-attainment pollutants at a rate of 5 percent per year, or include all feasible measures and expeditious adoption schedule;
- Implement public education programs;
- Reduce per-capita population exposure to severe non-attainment pollutants according to a prescribed schedule;
- Include any other feasible controls that can be implemented, or for which implementation can begin, within 10 years of adoption of the most recent air quality plan; and
- Rank control measures by cost-effectiveness and implementation priority.

## **c. State Implementation Plan**

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving ambient air quality standards. The SDAPCD is responsible for preparing and implementing the portion of the SIP applicable to the SDAB. The SDAPCD adopts rules, regulations, and programs to attain state and federal air quality standards, and appropriates money (including permit fees) to achieve its objectives.

## **d. Regional Air Quality Strategy**

The SDAPCD prepared the 1991/1992 Regional Air Quality Strategy (RAQS) in response to requirements set forth in the California CAA. Attached as part of the RAQS are the Transportation Control Measures (TCMs) adopted by the San Diego Association of Governments (SANDAG). Updates of the RAQS and corresponding TCM are required every three years. The RAQS and TCM set forth the steps needed to accomplish attainment of state and federal ambient air quality standards. The most recent update of the RAQS and TCM occurred in 2009.

## **5.3.2 Environmental Setting**

### **5.3.2.1 Air Basin/Geographic Setting**

The project area is located within the SDAB, which encompasses the entire County of San Diego. The westerly, coastal areas of the SDAB typically experience westerly winds which direct pollutants eastward, as described below. The eastern portion of the SDAB is surrounded by mountains to the north, east, and south. These mountains tend to restrict airflow and concentrate pollutants in the valleys and low-lying areas below.

Air quality is commonly expressed as the number of days per year in which air pollution levels exceed federal standards set by the U.S. EPA or state standards set by CARB.

### 5.3.2.2 Climate

The project area is located approximately 10 miles east of the Pacific Ocean and, like the rest of San Diego County's coastal areas, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The mean annual temperature for the project area is 65 degrees Fahrenheit (°F). The average annual precipitation is 12 inches, falling primarily from November to April. Winter low temperatures in the study area average approximately 56°F, and summer high temperatures average approximately 86°F. The average relative humidity is 69 percent and is based on the yearly average humidity at Lindbergh Field (Western Regional Climate Center 2014).

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the SDAB. Beneath the inversion layer pollutants become "trapped" as their ability to disperse diminishes. The mixing depth is the area under the inversion layer. Generally, the morning inversion layer is lower than the afternoon inversion layer. The greater the change between the morning and afternoon mixing depths, the greater the ability of the atmosphere to disperse pollutants.

Throughout the year, the height of the temperature inversion in the afternoon varies between approximately 1,500 and 2,500 feet above mean sea level (AMSL). In winter, the morning inversion layer is about 800 feet AMSL. In summer, the morning inversion layer is about 1,100 feet AMSL. Therefore, air quality generally tends to be better in the winter than in the summer.

The prevailing westerly wind pattern is sometimes interrupted by regional "Santa Ana" conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Strong Santa Anas tend to blow pollutants out over the ocean, producing clear days. However, at the onset or during breakdown of these conditions or if the Santa Ana is weak, local air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin (SCAB) to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB. When this event does occur, the combination of transported and locally produced contaminants produce the worst air quality measurements recorded in the basin.

### 5.3.2.3 Existing Air Quality

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB or federal standards set by the U.S. EPA. The SDAPCD maintains 11 air quality monitoring stations located throughout the greater San Diego metropolitan region. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels. Table 5.3-2 summarizes the number of days per year during which state and federal standards were exceeded in the SDAB overall during the years 2009 to 2013.

The San Diego—Kearny Villa Road monitoring station, located approximately 2 miles west of the study area, is the nearest station to the project area. The San Diego—Kearny Villa Road monitoring station began measuring ozone in 2010, and NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> in 2012. The El Cajon—Redwood Avenue monitoring station, located approximately 5 miles southeast of Mission Trails Regional Park, is the next closest monitoring station to the project area, and contains complete ozone, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> measurement data for years 2009 through 2013. Table 5.3-3 provides a summary of measurements collected at the San Diego—Kearny Villa Road and the El Cajon—Redwood Avenue monitoring stations for the years 2009 through 2013.

**Table 5.3-2  
Ambient Air Quality Summary – San Diego Air Basin**

Pollutant	Average Time	California Ambient Air Quality Standards <sup>a</sup>	Attainment Status	National Ambient Air Quality Standards <sup>b</sup>	Attainment Status <sup>c</sup>	Maximum Concentration					Number of Days Exceeding State Standard					Number of Days Exceeding National Standard				
						2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
O <sub>3</sub>	1 hour	0.09 ppm	N	N/A	N/A	0.119	0.107	0.114	0.101	0.095	8	7	5	2	2	N/A	N/A	N/A	N/A	N/A
O <sub>3</sub>	8 hours	0.07ppm	N	0.075 ppm	N	0.098	0.088	0.093	0.084	0.083	47	21	33	25	28	24	14	10	10	7
CO	8 hours	9 ppm	A	9 ppm	A	3.24	2.46	2.44	3.61	Na	0	0	0	0	Na	0	0	0	0	Na
NO <sub>2</sub>	1 hour	0.18 ppm	A	0.100 ppm	A	0.091	0.091	0.100	0.077	0.091	0	0	0	0	0	0	0	0	0	0
NO <sub>2</sub>	Annual	0.030 ppm	A	0.053 ppm	A	0.021	0.021	0.020	0.020	0.019	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX
PM <sub>10</sub>	24 hours	50 µg/m <sup>3</sup>	N	150 µg/m <sup>3</sup>	U	123.0	108.0	126.0	126.0	92.0	25/ 146.4*	22/ 136.0*	23/ 138.5*	6/ 6.1*	1/ 6.0*	0/ 0.0*	0/ 0.0*	0/ 0.0*	0/ 0.0*	0/ 0.0*
PM <sub>10</sub>	Annual	20 µg/m <sup>3</sup>	N	N/A	N/A	53.9	47.0	46.2	24.3	25.4	EX	EX	EX	EX	EX	--	--	--	--	--
PM <sub>2.5</sub>	24 hours	N/A	N/A	35 µg/m <sup>3</sup>	A	78.4	52.2	72.0	82.9	68.1	--	--	--	--	--	4/3.4*	2/2.0*	3/3.0*	2/1.0*	3/2.0*
PM <sub>2.5</sub>	Annual	12 µg/m <sup>3</sup>	N	15 µg/m <sup>3</sup>	A	12.2	10.8	15.9	14.2	10.6	EX	NX	EX	EX	NX	NX	NX	EX	NX	NX

SOURCE: State of California 2014a. California Air Quality Data Statistics. California Air Resources Board Internet Site. URL <http://www.arb.ca.gov/adam/welcome.html>.

NOTE: Data for SO<sub>2</sub> and 1-hour CO were not available.

\*Measured Days/Calculated Days - Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

<sup>a</sup>California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM<sub>10</sub> are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if the CARB determines they would occur less than once per year on average.

<sup>b</sup>National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

<sup>c</sup>A = attainment; N = non-attainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.

ppm = parts per million, µg/m<sup>3</sup> = micrograms per cubic meter.

<b>Table 5.3-3 Summary of Air Quality Measurements Recorded at the San Diego—Kearny Villa Road and El Cajon—Redwood Avenue Monitoring Stations</b>					
Pollutant/Standard	2009	2010	2011	2012	2013
<b>SAN DIEGO—KEARNY VILLA ROAD</b>					
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	Na	0	0	1	0
Days State 8-hour Standard Exceeded (0.07 ppm)	Na	0	2	3	1
Days '08 Federal 8-hour Standard Exceeded (0.075 ppm)	Na	0	1	1	0
Max. 1-hr (ppm)	Na	0.073	0.093	0.099	0.081
Max 8-hr (ppm)	Na	0.061	0.084	0.077	0.071
Nitrogen Dioxide					
Days State 1-hour Standard Exceeded (0.18 ppm)	Na	Na	Na	0	0
Max 1-hr (ppm)	Na	Na	Na	0.057	0.067
Annual Average (ppm)	Na	Na	Na	Na	0.011
PM <sub>10</sub> *					
Measured Days State 24-hour Standard Exceeded (50 µg/m <sup>3</sup> )	Na	Na	Na	0	0
Calculated Days State 24-hour Standard Exceeded (50 µg/m <sup>3</sup> )	Na	Na	Na	0	0
Measured Days Federal 24-hour Standard Exceeded (150 µg/m <sup>3</sup> )	Na	Na	Na	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 µg/m <sup>3</sup> )	Na	Na	Na	0	0
Max. Daily (µg/m <sup>3</sup> )	Na	Na	Na	35.0	39.0
State Annual Average (µg/m <sup>3</sup> )	Na	Na	Na	Na	20.0
Federal Annual Average (µg/m <sup>3</sup> )	Na	Na	Na	14.7	19.9
PM <sub>2.5</sub> *					
Measured Days '06 Federal 24-hour Standard Exceeded (35 µg/m <sup>3</sup> )	Na	Na	Na	0	0
Calculated Days '06 Federal 24-hour Standard Exceeded (35 µg/m <sup>3</sup> )	Na	Na	Na	0	0
Max. Daily (µg/m <sup>3</sup> )	Na	Na	Na	20.1	22.0
State Annual Average (µg/m <sup>3</sup> )	Na	Na	Na	Na	8.3
Federal Annual Average (µg/m <sup>3</sup> )	Na	Na	Na	Na	8.3
<b>EL CAJON—REDWOOD AVENUE</b>					
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	2	1	1	0	0
Days State 8-hour Standard Exceeded (0.07 ppm)	5	6	1	1	3
Days '08 Federal 8-hour Standard Exceeded (0.075 ppm)	2	3	1	0	1
Max. 1-hr (ppm)	0.098	0.102	0.105	0.086	0.090
Max 8-hr (ppm)	0.083	0.078	0.087	0.074	0.078
Nitrogen Dioxide					
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Max 1-hr (ppm)	0.054	0.058	0.049	0.059	0.051
Annual Average (ppm)	0.014	0.013	0.012	0.012	0.012
PM <sub>10</sub> *					
Measured Days State 24-hour Standard Exceeded (50 µg/m <sup>3</sup> )	1	0	0	0	0
Calculated Days State 24-hour Standard Exceeded (50 µg/m <sup>3</sup> )	6.0	0.0	0.0	0.0	0.0
Measured Days Federal 24-hour Standard Exceeded (150 µg/m <sup>3</sup> )	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 µg/m <sup>3</sup> )	0.0	0.0	0.0	0.0	0.0
Max. Daily (µg/m <sup>3</sup> )	57.0	42.0	41.9	47.2	41.1
State Annual Average (µg/m <sup>3</sup> )	25.3	21.3	23.7	23.4	24.4
Federal Annual Average (µg/m <sup>3</sup> )	25.1	21.1	19.2	23.4	24.1
PM <sub>2.5</sub> *					
Measured Days Federal 24-hour Standard Exceeded (35 µg/m <sup>3</sup> )	1	0	0	1	0
Calculated Days Federal 24-hour Standard Exceeded (35 µg/m <sup>3</sup> )	3.0	0.0	0.0	3.3	0.0
Max. Daily (µg/m <sup>3</sup> )	56.5	27.7	29.7	37.7	23.1
State Annual Average (µg/m <sup>3</sup> )	12.2	10.8	10.6	Na	10.6
Federal Annual Average (µg/m <sup>3</sup> )	12.1	10.8	10.5	10.5	10.6
SOURCE: State of California 2014a. Na = Not available. Monitoring data at the San Diego—Kearny Villa Road monitoring station was not available prior to 2010. *Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.					

### 5.3.3 Significance Determination Thresholds

Thresholds used to evaluate potential impacts to air quality are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G, the City of San Diego (City) CEQA Significance Determination Thresholds (2016), and applicable air district standards. Impacts related to air quality would be significant if implementation of the Plans and associated discretionary actions would:

1. Result in an increased number of automobile trips which would/could potentially affect San Diego's ability to meet regional, state, and federal clean air standards; or
2. Result in air emissions that would substantially deteriorate ambient air quality, including the exposure of sensitive receptors to substantial pollutant concentrations.

### 5.3.4 Impact Analysis

#### Issue 1: Air Quality Plans/Vehicle Trips

*Would implementation of the Plans and associated discretionary actions result in an increased number of automobile trips which would/could potentially affect San Diego's ability to meet regional, state, and federal clean air standards?*

As detailed in the City of San Diego's 2016 Significance Determination Thresholds, a project would result in significant impacts if it would conflict with or obstruct implementation of the applicable air quality plan; or violate any air quality standard or contribute substantially to an existing or projected air quality violation (long-term operational emissions).

The SDAPCD does not provide specific numerics for determining the significance of construction and operational source-related impacts. However, the SDAPCD does specify Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources (SDAPCD Rules 20.2 and 20.3). Although these trigger levels do not generally apply to construction or mobile sources, for comparative purposes these levels are used to evaluate the increased emissions that would be discharged to the SDAB if the project were approved. The AQIA screening levels are shown in Table 5.3-4.

Pollutant	Emission Rate (lb/day)	Emission Rate (tons/yr)
NO <sub>x</sub>	250	40
SO <sub>x</sub>	250	40
CO	550	100
PM <sub>10</sub>	100	15
Lead	3.2	0.6
ROG <sup>1</sup>	250 <sup>1</sup>	15
PM <sub>2.5</sub> <sup>2</sup>	100 <sup>2</sup>	10

SOURCE: SDAPCD, Rule 20.2 (12/17/1998).

<sup>1</sup>The threshold for VOCs is based on the Environmental Protection Agency General Conformity Rule, which equates VOC and NOX emissions under the clean air act and applies the same limitation on VOC and NOX emissions in ozone non-attainment areas (Federal Register 2010).

<sup>2</sup>PM2.5 threshold equated to PM10 as the SDAPCD does not set a limit on PM2.5 and approximately 92 percent of PM10 exhaust is PM2.5 and 61 percent of mechanical PM10 is PM2.5 (SCAQMD 2006).

Management actions identified in the NRMP, such as hand weeding, exclusionary fencing, and related activities, would not result in operational emissions nor would they conflict with applicable air quality plans. No impact would occur. The MPU is analyzed below.

### **a. Air Quality Plans**

The California CAA requires areas that are designated non-attainment of state ambient air quality standards for ozone, CO, SO<sub>2</sub>, and NO<sub>2</sub> to prepare and implement plans to attain the standards by the earliest practicable date. The SDAB is designated non-attainment for ozone. Accordingly, the RAQS was developed to identify feasible emission control measures and provide expeditious progress toward attaining the state ozone standards, PM<sub>10</sub>, and PM<sub>2.5</sub> (but as noted, the California CAA only requires, in this case, a plan for ozone). The two pollutants addressed in the RAQS are reactive organic gases (ROGs) and NO<sub>x</sub>, which are precursors to the formation of ozone. Projected increases in motor vehicle usage, population, and growth create challenges in controlling emissions to maintain and further improve air quality. The RAQS, in conjunction with the TCM, were most recently adopted in 2009 as the air quality plan for the region.

The mobile source emission projections used to develop the RAQS and the SANDAG growth projections are based on population and vehicle trends and land use plans developed in general plans. As such, projects that propose development that is consistent with the growth anticipated by SANDAG's growth projections and/or the general plan would be consistent with the RAQS. In the event that a project would propose development which is less dense than anticipated by the growth projections, the project would likewise be consistent with the RAQS. In the event a project proposes development that is greater than anticipated in the growth projections, further analysis would be warranted to determine if the proposed project would exceed the growth projections used in the RAQS for the specific subregional area.

The purpose of the Plans is to provide a structure for ongoing land and resource management, maintain and improve recreational trails, and protect the Park's natural and cultural resources. Some MPU recommendations identify specific physical improvements within the Park, such as park furniture (picnic tables, benches, trash receptacles), trail creations and closures, and parking areas.

These types of subsequent projects contemplated by the MPU would not result in population growth and would not cause an increase in currently established population projections. The MPU would, therefore, be consistent with the City's General Plan and RAQS. In addition, subsequent projects contemplated by the MPU would comply with all existing and new rules and regulations as they are implemented by the SDAPCD, CARB, and/or U.S. EPA related to air quality emissions. Impacts would be less than significant.

## **b. Long-Term Operational Emissions**

Subsequent projects contemplated by the MPU, such as park furniture, trail creations and closures, and parking areas, would not result in a change in operational emissions.

The traffic analysis prepared for the Project (see Appendix H) analyzed MPU recommendations for potential traffic-related impacts. There are four recommendations that include the construction of additional visitor parking, which are conceptual in nature and would require further project-level design at the time they are proposed. These include parking areas at Barker Way (36 parking spaces), Mission Gorge Road (16 parking spaces), Mesa Road (76 parking spaces), and Father Junipero Serra Trail (80 parking spaces). Parking areas themselves would not generate additional vehicle trips in the region. Rather, parking areas would slightly redistribute a small amount of traffic. Some Park visitors would park in the newly constructed parking areas rather than existing parking areas, on the street, or within adjacent residential areas. The parking areas are intended to reduce some of the parking demand on the local residential streets and would not displace existing parking opportunities. Currently, visitors parking to hike in the Park will typically park on the surrounding residential streets, both on the west and east sides of the street adjacent to residences. Any increase in Park use would likely occur with or without these Park improvements, based on regional growth and the overall demand for parks. This increased demand for Parks increases the demand for parking. Because the provision of parking would not generate additional vehicle trips and parking areas would serve existing Park areas, the additional visitor parking would not result in an increase in operational emissions. Therefore, implementation of the MPU would not result in an air quality violation, and impacts related to long-term operational air emissions would be less than significant.

## **Issue 2: Ambient Air Quality/Sensitive Receptors**

*Would implementation of the Plans and associated discretionary actions result in air emissions that would substantially deteriorate ambient air quality, including the exposure of sensitive receptors to substantial pollutant concentrations?*

As detailed in the City of San Diego's 2016 Significance Determination Thresholds, a project would result in significant impacts if it would:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation (short-term construction emissions);
- Expose sensitive receptors to substantial pollutant concentrations, including air toxics such as diesel particulates;
- Create objectionable odors affecting a substantial number of people; or
- Release substantial quantities of air contaminants beyond the boundaries of the premise upon which the stationary sources emitting the contaminants is located.

The City has also established the following analysis guidelines for sensitive receptors, including exposure to CO hotspots, TACs, and odors. These guidelines can be used as screening criterion to help evaluate potential project-level impacts.

- The project would place sensitive receptors near CO “hotspots” or create CO “hotspots” near sensitive receptors.
- The project would result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1-in-1 million without application of Toxics-Best Available Control Technology, or a health hazard index greater than 1, and thus be deemed as having a potentially significant impact.
- The project would create objectionable odors affecting a substantial number of people.

Management actions identified in the NRMP, such as hand weeding, exclusionary fencing, and related activities would not require the use of heavy construction equipment and would not result in substantial ground disturbance that would create fugitive dust. No impact would occur. The MPU is analyzed below.

### **a. Short-term Construction Emissions**

This section discusses impacts associated with short-term construction-related emissions. Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include:

- Fugitive dust from grading activities;
- Construction equipment exhaust;
- Construction-related trips by workers, delivery trucks, and material-hauling trucks; and
- Construction-related power consumption.

As previously discussed, some of the MPU recommendations identify specific physical improvements within the Park as subsequent projects, such as park furniture (picnic tables, benches, trash receptacles), trail creations and closures, and parking areas. The installation of park furniture would not require the use of heavy construction equipment and would not result in substantial ground disturbance that would create fugitive dust. However, construction of parking areas as well as activities required for trail maintenance and creation would require the use of hand tools, trail building equipment, and other

construction equipment such as loaders and pavers. These activities would generate short-term emissions of criteria pollutants.

Emissions due to parking area construction and trail construction activities were calculated using California Emissions Estimator Model (CalEEMod) (California Air Pollution Control Officers Association 2013). Primary inputs are the numbers of each piece of equipment and the length of each construction stage. Specific construction phasing and equipment parameters for the project are not available at this time. For parking area construction, required equipment and phasing parameters are based on SCAQMD construction surveys, U.S. EPA AP-42 emission factors, and CARB OFFROAD2011 methodology.

For trail construction, it is likely that mostly hand tools would be used because the trails would follow existing patterns. However, in some locations, a variety of heavier trail building equipment may be required. Trail construction equipment could include bobcats, trail dozers, compact utility loaders, and compact trenchers. This equipment was modeled in CalEEMod as two skid-steer loaders, one dozer, and one trencher. The CalEEMod default horsepower levels and load factors for skid-steer loaders, dozers, and trenchers are much greater than what would actually be required for trail construction. Table 5.3-5 summarizes the construction equipment parameters.

<b>Table 5.3-5 Construction Equipment Parameters</b>				
<b>Phase</b>	<b>Length (Days)</b>	<b>Equipment</b>	<b>Horsepower</b>	<b>Load Factor</b>
<b>Parking Areas</b>				
Grubbing	2	1 Grader	174	0.41
		1 Tractor/Loader/Backhoe	97	0.37
		1 Rubber Tired Dozer	255	0.40
Grading	4	1 Grader	174	0.41
		1 Tractor/Loader/Backhoe	97	0.37
		1 Rubber Tired Dozer	255	0.40
Paving	10	1 Cement and Mortar Mixer	9	0.56
		1 Paver	125	0.42
		1 Roller	80	0.38
		1 Tractor/Loader/Backhoe	97	0.37
		1 Paving Equipment	130	0.36
Trails	261 <sup>1</sup>	2 Skid Steer Loaders	64	0.37
		1 Rubber Tired Dozer	255	0.40
		1 Trencher	80	0.50

<sup>1</sup>Amount of time required to improve trails is not known at this time. A 1-year phase length with work conducted on weekdays only was assumed in order to obtain daily and annual emissions.

The maximum emissions for each criterion pollutant are shown in Table 5.3-6.

Pollutant	Parking Area Construction	Trail Construction	Total	Significance Threshold
ROG	3	2	5	250
NO <sub>x</sub>	27	23	50	250
CO	17	17	34	550
SO <sub>2</sub>	0	0	0	250
PM <sub>10</sub>	7	7	14	100
PM <sub>2.5</sub>	4	4	8	100

Note that the emissions summarized in Table 5.3-6 are the maximum emissions for each pollutant, and they are the daily amounts that may occur during different phases of construction. They assume that all construction activities would occur simultaneously and that trail construction equipment is heavier than what would actually be required. These are therefore the estimated worst-case emissions. As shown, construction emissions would be less than the applicable thresholds for all criteria pollutants and would not result in an air quality violation. Therefore, impacts related to short-term construction air emissions associated with subsequent projects contemplated by the MPU would be less than significant.

## **b. Sensitive Receptors**

### ***Diesel Particulate Matter***

As discussed above, diesel-powered equipment would be required to complete construction activities for some types of subsequent projects envisioned by the MPU. Construction activities would, therefore, result in increased exposure of receptors in the vicinity of construction projects to diesel particulate matter emissions. Cancer health risks associated with exposures to diesel exhaust are typically associated with chronic exposure, in which a 70-year exposure period often is assumed. For example, a significant cancer risk would be caused by people living for many years next to a heavily used railroad line. It is highly unlikely that off-site receptors downwind of temporary construction sites would experience any significant cancer risk directly associated with diesel emissions from a construction project. Because construction operations are minimal and short-term, impacts associated with exposure to diesel particulate matter would be less than significant.

### ***CO Hotspots***

Small-scale, localized concentrations of CO above the state and national standards have the potential to occur near stagnation points of heavily traveled intersections. Localized, high concentrations of CO are referred to as "CO hotspots." CO hotspots can occur when projects contribute traffic to area intersections. CO hot spots almost exclusively occur near intersections with level of service E or worse in combination with relatively high traffic volumes on all roadways (Garza et al. 1997, pages 4-7 and 4-8).

As previously detailed, the MPU conceptually identifies four proposed parking areas that could be constructed under the Plans: Barker Way (36 parking spaces), Mission Gorge Road (16 parking spaces), Mesa Road (76 parking spaces), and Father Junipero Serra Trail (80 parking spaces). These roadways

carry relatively low traffic volumes. The addition of parking to these roadways would not result in the degradation of intersection or roadway segment traffic operations. Impacts associated with CO hotspots would be less than significant.

### **c. Odors**

Construction activity could generate airborne odors from exhaust emissions. Subsequent projects implemented in accordance with the MPU would, therefore, generate minor odors through the use of diesel-powered equipment. However, odors generated from vehicles and/or equipment exhaust during construction would be temporary, localized, and occur at levels that would not affect people. Therefore, impacts from construction would be less than significant.

In general, Park trails, recreational amenities, and other facilities are not associated with odor generation. There would be no odor impact associated with long-term project operation.

### **d. Stationary Sources**

A significant stationary source air quality impact would occur if a project would release substantial quantities of air contaminant beyond the boundaries of the premises. The project would not result in the construction of a stationary source of emissions. Additionally, as discussed previously, anticipated short-term construction-related emissions and long-term operational emissions would be less than significant. Impacts associated with stationary sources of air contaminants would be less than significant.

## **5.3.5 Significance of Impacts**

### **Issue 1: Air Quality Plans/Vehicle Trips**

#### **a. Air Quality Plans**

Implementation of the MPU would not result in a conflict with or obstruct implementation of the applicable air quality plan, nor would it result in population growth or cause an increase in currently established population projections. The MPU would, therefore, be consistent with the City's General Plan and RAQS. Impacts would be less than significant.

#### **b. Long-Term Operational Emissions**

The MPU would not result in a change in long-term operational emissions and would not result in an air quality violation. Therefore, impacts related to long-term operational air emissions would be less than significant.

## Issue 2: Ambient Air Quality/Sensitive Receptors

### a. Short-Term Construction Emissions

Construction emissions would be less than the applicable thresholds for all criteria pollutants and would not result in an air quality violation. Therefore, impacts related to short-term construction air emissions associated with subsequent projects implemented in accordance with the MPU would be less than significant.

### b. Sensitive Receptors

#### *Diesel Particulate Matter*

It is highly unlikely that off-site receptors downwind of temporary construction sites would experience any significant cancer risk directly associated with diesel emissions from a construction project. Because construction operations are minimal and short-term, impacts associated with exposure to diesel particulate matter would be less than significant.

#### *CO Hotspots*

CO hot spots almost exclusively occur near intersections with level of service E or worse in combination with relatively high traffic volumes on all roadways. Barker Way, Mission Gorge Road, Mesa Road, and Father Junipero Serra Trail carry relatively low traffic volumes. The addition of parking to these roadways would not result in the degradation of intersection or roadway segment traffic operations. Impacts associated with CO hotspots would be less than significant.

### c. Odors

Odors generated from vehicles and/or equipment exhaust during construction would be temporary, localized, and occur at levels that would not affect people. Therefore, impacts from construction would be less than significant. There would be no odor impact associated with long-term project operation.

### d. Stationary Sources

None of the subsequent projects contemplated by the MPU would result in the construction of a stationary source of emissions. Additionally, as discussed previously, anticipated short-term construction-related emissions and long-term operational emissions would be less than significant. Impacts associated with stationary sources of air contaminants would be less than significant.

## 5.3.6 Mitigation Framework

Impacts would be less than significant. No mitigation is required.

## 5.4 Greenhouse Gas Emissions

This section addresses the potential greenhouse gas emissions impacts that would result from implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park) and associated discretionary actions. It also discusses regulations applicable to subsequent projects contemplated by the Plans.

### 5.4.1 Regulatory Framework

Federal, state, and local regulatory plans aim to reduce greenhouse gas (GHG) emissions by primarily targeting the largest emitters of GHGs: the transportation and energy sectors. These plans' goals and regulatory standards are thus largely focused on the automobile industry and public utilities. A summary of some of the key programs and regulations concerning GHG emissions and climate change is presented below.

#### 5.4.1.1 Federal

##### a. Climate Action Plan

The Executive Office has produced the President's Climate Action Plan (CAP), which includes goals of cutting carbon pollution and preparing for the impacts of climate change (Executive Office of the President 2013). Cutting carbon pollution is part of the President's goal to double renewable electricity generation by 2020, through accelerating clean energy permitting and expanding and modernizing the electric grid. The plan also states that the federal government will consume 20 percent of its electricity from renewable sources by 2020. This document was produced by the executive branch and has not passed through congressional channels.

##### b. CAFE Standards

The federal (Corporate Average Fuel Economy [CAFE]) standards determine the fuel efficiency of certain vehicle classes in the U.S. While the standards had not changed since 1990, as part of the Energy and Security Act of 2007, the CAFE standards were increased in 2007 for new light-duty vehicles to 35 miles per gallon (mpg) by 2020. In May 2009, further plans were announced to increase CAFE standards to require light-duty vehicles to meet an average fuel economy of 35.5 mpg by 2016. In August 2012, fuel economy standards were further increased to 54.5 mpg for cars and light-duty trucks by model year 2025. This will nearly double the fuel efficiency of those vehicles compared to vehicles currently on our roads. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

### 5.4.1.2 State

The state of California has a number of policies and regulations that are either directly or indirectly related to GHG emissions. Only those most relevant to the project are included in this discussion.

#### a. Executive Order S-3-05—Statewide GHG Emission Targets

This executive order (EO) of 2005 proclaims that California is vulnerable to the impacts of climate change, including increased temperatures that could reduce the Sierra Nevada's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, it established the following GHG emission reduction targets for the state of California:

- by 2010 reduce GHG emissions to 2000 levels;
- by 2020 reduce GHG emissions to 1990 levels; and
- by 2050 reduce GHG emissions to 80 percent below 1990 levels.

This EO also directed the secretary of the California EPA to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming. The first such Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years thereafter.

#### b. Executive Order B-30-15 – 2030 Statewide GHG Emission Goal

This EO, issued by Governor Brown on April 29, 2015, established an interim GHG emission reduction goal for the state of California: by 2030, reduce GHG emissions to 40 percent below 1990 levels. This EO also directed all state agencies with jurisdiction over GHG emitting sources to implement measures designed to achieve the new interim 2030 goal as well as the pre-existing long-term 2050 goal identified in EO S- 3-05 (see discussion above). Additionally, this EO directed the California Air Resources Board (CARB) to update its AB 32 (Nuñez) mandated Scoping Plan (see discussion above) to address the 2030 goal. Therefore, in the coming months, CARB is expected to develop statewide inventory projection data for 2030 as well as commence its efforts to identify reduction strategies capable of securing emission reductions that allow for achievement of the EO's new interim goal.

#### c. Assembly Bill 32—California Global Warming Solutions Act of 2006

In response to EO S-3-05, the California legislature passed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, and thereby enacted Sections 38500–38599 of the California Health and Safety Code. AB 32 required CARB to establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. The CARB is also required to publish a list of discrete GHG emission reduction measures. As required by AB 32, CARB has established a statewide GHG emissions cap for 2020, and adopted reporting rules for large industrial sources and a Climate Change Scoping Plan (Scoping Plan).

#### **d. Climate Change Scoping Plan**

As directed by AB 32, the Scoping Plan prepared by CARB in December 2008 includes measures to reduce statewide GHG emissions to 1990 levels by 2020. These reductions are what CARB identified as necessary to reduce forecasted “Business As Usual” (BAU) 2020 emissions. CARB will update the Scoping Plan at least once every five years to allow evaluation of progress made and to correct the Scoping Plan’s course where necessary.

The 2008 Scoping Plan estimated annual BAU 2020 emissions to reach 596 million metric tons of CO<sub>2</sub> equivalent (MMT CO<sub>2</sub>E). Thus, to achieve 1990 emissions levels of 427 MMT CO<sub>2</sub>E, a 169 MMT CO<sub>2</sub>E reduction was thus determined to be needed by 2020. The majority of reductions are directed at the sectors with the largest GHG emissions contributions—transportation and electricity generation—and involve statutory mandates affecting vehicle or fuel manufacture, public transit, and public utilities. The CARB list of recommended GHG reduction measures is shown in Table 5.4-1 below. The Scoping Plan also lists several other recommended measures that will contribute toward achieving the 2020 statewide reduction goal, but whose reductions are not (for various reasons, including the potential for double counting) additive with the measures listed in Table 5.4-1. Approved in May 2014, the First Update to the Scoping Plan defines CARB’s priorities for the next five years and sets the groundwork to reach long-term goals set forth in EO S-3-05. The First Update describes advancements in climate science such as the quantification of the impacts of temperature change, further understanding of the mechanisms of climate pollutants (black carbon, methane, and hydrofluorocarbons), and improvements to GHG monitoring. The First Update also describes progress made since the original Scoping Plan including implementation of a more comprehensive Cap-and-Trade Program, the Low Carbon Fuel Standard, a 33 percent Renewable Portfolio Standard, and an Advanced Clean Cars program that has been adopted at the federal level.

<b>Table 5.4-1 CARB Scoping Plan-Recommended GHG Reduction Measures</b>		
Recommended Reduction Measures	Reductions Counted Towards 2020 Target In MMT CO <sub>2</sub> E (% total) <sup>1</sup>	
<b>ESTIMATED REDUCTIONS RESULTING FROM THE COMBINATION OF CAPPED SECTORS AND COMPLEMENTARY MEASURES</b>	<b>146.7</b>	
California Light-Duty Vehicle Greenhouse Gas Standards <ul style="list-style-type: none"> <li>Implement Pavley Standards</li> <li>Develop LEV III light-duty vehicle standards</li> </ul>	31.7	(22%)
Energy Efficiency <ul style="list-style-type: none"> <li>Building/appliance efficiency, new programs, etc.</li> <li>Increase Combined Heat and Power (CHP) generation by 30,000 GWh</li> <li>Solar Water Heating (AB 1470 goal)</li> </ul>	26.3	(18%)
Renewables Portfolio Standard (RPS) (33% by 2020)	21.3	(14%)
Low Carbon Fuel Standard	15.0	(10%)
Regional Transportation-related GHG Targets <sup>2</sup>	5.0	(4%)
Vehicle Efficiency Measures	4.5	(3%)
Goods Movement <ul style="list-style-type: none"> <li>Ship Electrification at Ports</li> <li>Systemwide Efficiency Improvements</li> </ul>	3.7	(3%)
Million Solar Roofs	2.1	(2%)
Medium/Heavy Duty Trucks <ul style="list-style-type: none"> <li>Heavy-duty Vehicle Greenhouse Gas Emissions Reduction (Aerodynamic Efficiency)</li> <li>Medium- and Heavy-duty Vehicle Hybridization</li> </ul>	1.4	(<1%)
High Speed Rail	1.0	(<1%)
Industrial Measures (for sources covered under cap & trade program) <ul style="list-style-type: none"> <li>Refinery Measures</li> <li>Energy Efficiency and Co-benefits Audits</li> </ul>	0.3	(<.5%)
Additional Reductions Necessary to Achieve the Cap	34.4	(23%)
<b>ESTIMATED REDUCTIONS RESULTING FROM UNCAPPED SECTORS</b>	<b>27.3</b>	
Industrial Measures (for sources not covered under cap & trade program) <ul style="list-style-type: none"> <li>Oil and Gas Extraction and Transmission</li> </ul>	1.1	
High Global Warming Potential Gas Measures	20.2	
Sustainable Forests	5.0	
Recycling and Waste Reduction (landfill methane capture)	1.0	
<b>TOTAL REDUCTIONS COUNTED TOWARDS 2020 TARGET</b>	<b>174.0<sup>3</sup></b>	
<p>SOURCE: Table 2 of CARB 2008.</p> <p><sup>1</sup>Percentages are relative to the capped sector subtotal of 146.7 MMT CO<sub>2</sub>E, and may not total 100 due to rounding.</p> <p><sup>2</sup>This number represents an estimate of what may be achieved from local land use changes. It is not the Senate Bill 375 regional target. CARB will establish regional targets for each Metropolitan Planning Organization following input of the Regional Targets Advisory Committee and a public stakeholders' consultation process per Senate Bill 375.</p> <p><sup>3</sup>The total reduction for the recommended measures slightly exceeds the 169 MMT CO<sub>2</sub>E of reductions estimated in the BAU 2020 Emissions Forecast. This is the net effect of adding several measures and adjusting the emissions reduction estimates for some other measures.</p>		

## **e. California Energy Code**

The California Code of Regulations, Title 24, Part 6 is the California Energy Code (CEC). This code, originally enacted in 1978 in response to legislative mandates, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. The most recent amendments to the Energy Code, known as 2013 Title 24, or the 2013 Energy Code, became effective July 1, 2015. The 2013 Title 24 requires energy use reductions of 25 to 30 percent above the former 2008 Title 24 Energy Code. By reducing California's energy consumption, emissions of statewide GHGs may also be reduced.

New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The compliance reports must demonstrate a building's energy performance through use of CEC-approved energy performance software that shows iterative increases in energy efficiency given selection of various heating, ventilation, and air-conditioning; sealing; glazing; insulation; and other components related to the building envelope. Title 24 governs energy consumed by the built environment by the major building envelope systems such as space heating, space cooling, water heating, some aspects of the fixed lighting system, and ventilation. Non-building energy use, or plug-in energy use (such as appliances, equipment, electronics, plug-in lighting), are independent of building design and are not subject to Title 25.

### **5.4.1.3 Local**

#### **a. San Diego Association of Government's Regional Plan**

The Regional Plan prepared was adopted by the San Diego Association of Governments (SANDAG) in 2015 is the long-range planning document developed to address the region's housing, economic, transportation, environmental, and overall quality-of-life needs. The Regional Plan establishes a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth while preserving natural resources and limiting urban sprawl." The Regional Plan encourages the regions and the County to increase residential and employment concentrations in areas with the best existing and future transit connections, and to preserve important open spaces. The focus is on implementation of basic smart growth principles designed to strengthen the integration of land use and transportation. The Regional Plan also addresses border issues, providing an important guideline for communities that have borders with Mexico. In this case, the goal is to create a regional community where San Diego, its neighboring counties, tribal governments, and northern Baja California mutually benefit from San Diego's varied resources and international location.

#### **b. 2008 San Diego General Plan**

The City of San Diego's (City's) General Plan includes several climate change-related policies aimed at reducing GHG emissions from future development and City operations. For example, Conservation Element policy CE-A.2 aims to "reduce the City's carbon footprint" and to "develop and adopt new or amended regulations, programs, and incentives as appropriate to implement the goals and policies set forth" related to climate change. The Land Use and Community Planning Element, the Mobility Element,

the Urban Design Element, and the Public Facilities, Services, and Safety Element also identify GHG reduction and climate change adaptation goals. These elements contain policy language related to sustainable land use patterns, alternative modes of transportation, energy efficiency, water conservation, waste reduction, and greater landfill efficiency. The overall intent of these policies is to support climate protection actions, while retaining flexibility in the design of implementation measures, which could be influenced by new scientific research, technological advances, environmental conditions, or state and federal legislation.

The General Plan is based on the City of Villages Strategy, which proposes growth to be directed into pedestrian-friendly mixed-use activity centers linked to an improved regional transit system. The City of Villages Strategy shifts the focus of land use policies to encourage infill development, which can decrease mobile emissions. Cumulative impacts of GHG emissions were qualitatively analyzed and determined to be significant and unavoidable in the Program Environmental Impact Report (PEIR) for the General Plan. A PEIR Mitigation Framework was included that indicated that “for each future project requiring mitigation (measures that go beyond what is required by existing programs, plans, and regulations), project-specific measures will [need to] be identified with the goal of reducing incremental project-level impacts to less than significant; or the incremental contributions of a project may remain significant and unavoidable where no feasible mitigation exists.”

### **c. Climate Action Plan**

In December 2015, the City adopted its Climate Action Plan (CAP). The CAP identifies measures to meet GHG reduction targets for 2020 and 2035. The CAP consists of a 2010 inventory of GHG emissions, a BAU projection for emissions at 2020 and 2035, state targets, and emission reductions with implementation of the CAP. The City identifies GHG reduction strategies focusing on energy- and water-efficient buildings; clean and renewable energy; bicycling, walking, transit, and land use; zero waste; and climate resiliency. Accounting for future population and economic growth, the City projects GHG emissions will be approximately 15.9 MMT CO<sub>2</sub>E in 2020 and 16.7 MMT CO<sub>2</sub>E in 2035. To achieve its proportional share of the state reduction targets for 2020 (AB 32) and 2050 (EO S-3-05), the City would need to reduce emissions below the 2010 baseline by 15 percent in 2020 and 50 percent by 2035. To meet these goals, the City must implement strategies that reduce emissions to approximately 11.0 MMT CO<sub>2</sub>E in 2020 and 6.5 MMT CO<sub>2</sub>E in 2035. Through implementation of the CAP, the City is projected to reduce emissions even further below targets by 1.2 MMT CO<sub>2</sub>E by 2020 and 205,462 MMT CO<sub>2</sub>E by 2035.

Following the adoption of the CAP, the City adopted a CAP Consistency Checklist that provides a streamlined review process for the GHG emissions analysis of proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA. The Checklist provides the following three step process for determining if a project would be consistent with the CAP:

**Step 1** – The first step in the CAP Consistency Checklist assesses a project’s consistency with the growth projections in the CAP. If a project is consistent with the existing General Plan and Community Plan land use and zoning designations or was otherwise included in SANDAG’s Series 12 growth forecasts, it can be determined to be consistent with the CAP projections and can move forward to Step 2 of the Checklist. However, not all projects that are inconsistent with existing General Plan and Community Plan land use and zoning designations would be inconsistent with the CAP’s projections. For example, if a project includes a land use plan and/or zoning designation amendment that would result in an

equivalent or less GHG-intensive project when compared to the existing designations, it would still be within the projections assumed in the CAP and can move forward to Step 2 of the Checklist. Estimated GHG emissions under the existing and proposed designations would need to be provided to support this conclusion. A third scenario that is examined is a project that would increase the intensity of land uses through a land use plan and/or zoning designation amendment and would potentially increase GHG emissions above and beyond the projections in the CAP.

**Step 2** – The second step of the CAP consistency review is to review and evaluate a project’s consistency with the applicable strategies and actions of the CAP. Step 2 provides a checklist of CAP strategies related to energy and water efficient buildings; clean and renewable energy; and bicycling, walking, transit, and land use. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures. All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

**Step 3** – The third step of the CAP consistency review applies when a project would increase the intensity of land uses through a land use plan and/or zoning designation amendment and would potentially increase GHG emissions above and beyond the projections in the CAP, as identified in Step 1. The purpose of this step is to determine whether a project that is located in a transportation priority area but that includes a land use plan and/or zoning designation amendment that would result in an increase in GHG emissions when compared to the existing designations, is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. Step 3 focuses on assessing if a project would implement the General Plan’s City of Villages strategy, the General Plan’s Mobility Element, pedestrian improvements, the Bicycle Master Plan, and support transit-oriented development in a transportation priority area.

## 5.4.2 Environmental Setting

### 5.4.2.1 Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and man-made. Table 5.4-2 summarizes some of the most common. Each GHG has variable atmospheric lifetime and global warming potential (GWP).

<b>Table 5.4-2 Global Warming Potentials and Atmospheric Lifetimes</b>		
Gas	Atmospheric Lifetime (Years)	100-Year Global Warming Potential (GWP)
Carbon Dioxide (CO <sub>2</sub> )	50–200	1
Methane (CH <sub>4</sub> )	12±3	21
Nitrous Oxide (N <sub>2</sub> O)	120	310

SOURCE: U.S. EPA 2010, Annex 6.  
 NOTES: The methane global warming potential (GWP) includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO<sub>2</sub> is not included.

The atmospheric lifetime of the GHG is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. The potential of a gas to trap heat and warm the atmosphere is measured by its GWP. Specifically, GWP is defined as (U.S. EPA 2010):

The cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas.

The reference gas for establishing GWP is carbon dioxide (CO<sub>2</sub>), which has a GWP of 1. As an example, methane (CH<sub>4</sub>), while having a shorter atmospheric lifetime than CO<sub>2</sub>, has a 100-year GWP of 21, which means that it has a greater global warming effect than CO<sub>2</sub> on a molecule-by-molecule basis.

### 5.4.2.2 Statewide GHG Emissions

The CARB performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste reduction, residential, and transportation. Emissions are quantified in MMT CO<sub>2</sub>E. Table 5.4-3 shows the estimated statewide GHG emissions for the years 1990, 2008, and 2011.

<b>Table 5.4-3 California GHG Emissions by Sector in 1990, 2008, and 2012</b>			
Sector	1990 <sup>1</sup> Emissions in MMT CO <sub>2</sub> E (% total) <sup>2</sup>	2008 <sup>3</sup> Emissions in MMT CO <sub>2</sub> E (% total) <sup>2</sup>	2012 Emissions in MMT CO <sub>2</sub> E (% total) <sup>2</sup>
Sources			
Agriculture	23.4 (5%)	37.99 (8%)	37.86 (8%)
Commercial	14.4 (3%)	13.37 (3%)	14.20 (3%)
Electricity Generation	110.6 (26%)	120.15 (25%)	95.09 (21%)
High GWP	--	12.87 (3%)	18.41 (4%)
Industrial	103.0 (24%)	87.54 (18%)	89.16 (19%)
Recycling and Waste Reduction	--	8.09 (2%)	8.49 (2%)
Residential	29.7 (7%)	29.07 (6%)	28.09 (6%)
Transportation	150.7 (35%)	178.02 (37%)	167.38 (36%)
Forestry (Net CO <sub>2</sub> flux)	-6.69	--	--
Not Specified	1.27	--	--
<b>TOTAL</b>	<b>426.6</b>	<b>447.10</b>	<b>458.68</b>
SOURCE: California Energy Commission 2014; CARB 2007, 2014 <sup>1</sup> 1990 data was retrieved from the CARB 2007 source. <sup>2</sup> Percentages may not total 100 due to rounding. <sup>3</sup> 2008 and 2012 data was retrieved from the CARB 2014 source. <sup>4</sup> Reported emissions for key sectors. The inventory totals for 2008 and 2012 did not include Forestry or Not Specified sources.			

As shown, statewide GHG source emissions totaled 427 MMT CO<sub>2</sub>E in 1990, 447.10 MMT CO<sub>2</sub>E in 2008, and 458.68 MMT CO<sub>2</sub>E in 2012. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. While CARB has adopted multiple GHG emission reduction measures, the effect of those reductions will not be seen until around 2015. According to CARB, most of the reductions since 2008 have been driven by economic factors (recession), previous energy-efficiency actions, and the renewable portfolio standard (CARB 2013). Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

The forestry sector is unique because it not only includes emissions associated with harvest, fire, and land use conversion (sources), but also includes removals of atmospheric CO<sub>2</sub> (sinks) by photosynthesis, which is then bound (sequestered) in plant tissues.

### 5.4.3 Significance Determination Thresholds

Based on the City's 2016 Significance Determination Thresholds, impacts related to GHG emissions would be significant if implementation of the Plans and associated discretionary actions would:

1. Generate GHGs, either directly or indirectly, that may have a significant impact on the environment; or

2. Conflict with the City's Climate Action Plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

Section 15064.4 of the CEQA Guidelines includes the following requirements for determining the significance of impacts from GHG emissions:

- (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
  - (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
  - (2) Rely on a qualitative analysis or performance-based standards.

The City's CAP was adopted in December 2015, and in July 2016, the City adopted the CAP Consistency Checklist (Checklist) to provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA. The Checklist contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. If a project is determined, through the use of the Checklist, to be in compliance with the CAP, the project may rely on the CAP for the cumulative impacts analysis of GHG emissions, and is not required to perform further analysis.

## 5.4.4 Impact Analysis

### Issue 1: Greenhouse Gas Emissions

*Would the Plans generate GHGs, either directly or indirectly, that may have a significant impact on the environment?*

Management actions identified in the NRMP, such as hand weeding, exclusionary fencing, and related activities would not require the use of heavy construction equipment or generate any significant number of vehicle trips, and would, therefore, have no associated GHG emissions. No impact would occur. The MPU is analyzed below.

Some of the MPU recommendations identify specific physical improvements within the Park, such as park furniture (picnic tables, benches, trash receptacles), trail creations and closures, and parking areas. Implementation of these recommendations would not result in a change in operational emissions because they are improvements and amenities that would serve existing operations and park users. GHG emissions due to the project would be those associated with construction activities. To evaluate

the project's GHG impacts related to construction, emissions were calculated using the California Emissions Estimator Model (CalEEMod).

GHG emissions are estimated in terms of total MTCO<sub>2</sub>E. CO<sub>2</sub>E emissions are the preferred way to assess combined GHG emissions because they give weight to the GWP of a gas. The GWP, as described above in Section 5.4.2, is the potential of a gas to warm the global climate in the same amount as an equivalent amount of emissions of CO<sub>2</sub>. CO<sub>2</sub> thus has a GWP of 1, CH<sub>4</sub> has a GWP of 21, and N<sub>2</sub>O has a GWP of 310, which means CH<sub>4</sub> and N<sub>2</sub>O have a greater global warming effect than CO<sub>2</sub>.

Construction activities emit GHGs primarily through combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in water use for fugitive dust control. Every phase of the construction process, including demolition, grading, paving, and building, emits GHGs in volumes proportional to the quantity and type of construction equipment used.

GHG emissions due to parking area construction and trail construction activities were calculated using CalEEMod (California Air Pollution Control Officers Association [CAPCOA] 2013). Primary inputs are the numbers of each piece of equipment and the length of each construction stage. Specific construction phasing and equipment parameters for the project are not available at this time. For parking area construction, required equipment and phasing parameters were based on South Coast Air Quality Management District construction surveys, United States Environmental Protection Agency (U.S. EPA) AP-42 emission factors, and CARB OFFROAD2011 methodology.

For trail construction, it is likely that mostly hand tools would be used because the trails would follow existing patterns. However, in some locations, a variety of heavier trail building equipment may be required. Trail construction equipment could include bobcats, trail dozers, compact utility loaders, and compact trenchers. This equipment was modeled in CalEEMod as two skid-steer loaders, one dozer, and one trencher. The CalEEMod default horsepower levels and load factors for skid-steer loaders, dozers, and trenchers are much greater than what would actually be required for trail construction. Refer to Section 5.3, Air Quality (see Table 5.3-5) for a summary of construction equipment parameters used in the modeling. Based on these assumptions, it was calculated that parking area construction activities would result in a total of 11 MTCO<sub>2</sub>E of GHGs.

The amount of time required to improve trails is not known at this time. A one-year phase length was assumed in order to obtain annual emissions. With this assumption, it was calculated that trail improvement construction activities would result in 216 MTCO<sub>2</sub>E annually. As noted previously, the default horsepower levels and load factors for skid-steer loaders, dozers, and trenchers are much greater than what would actually be required for trail construction. Thus, GHG emissions would be less than what was calculated.

For these reasons, implementation of the Plans would not result in substantial adverse effects related to the generation of GHG emissions, either directly or indirectly, that may have a significant effect on the environment. Additionally, implementation of the MPU would not result in a change in operational GHG emissions. Thus, impacts associated with GHG emissions would be less than significant.

## Issue 2: Conflicts with Plans or Policies

*Would implementation of the Plans and associated discretionary actions conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs?*

### a. Consistency with State Plans

Executive Order S-3-05 establishes GHG emission reduction targets for the state, and Assembly Bill 32 launched the Climate Change Scoping Plan that outlines the reduction measures needed to reach these targets. Implementation of the Plans and associated discretionary actions would not conflict with any of the Recommended Actions contained in CARB's Scoping Plan, since the Plans would not allow significant new sources of GHG emissions.

### b. Consistency with Regional Plans

#### ***SANDAG's San Diego Forward: The Regional Plan***

Implementation of the Plans and associated discretionary actions would not conflict with the goals of the Regional Plan to develop compact, walkable communities close to transit connections and consistent with smart growth principles because the Plans do not propose any commercial or residential development and would provide conservation of biological resources, enhanced recreational opportunities and trail connections. These actions would be consistent with the Regional Plan's Sustainable Communities Strategy. Thus, no significant adverse environmental effects would result from implementation of the Plans and associated discretionary actions in terms of consistency or conflicts with the Regional Plan.

### c. Consistency with Local Plans

#### ***City of San Diego General Plan***

No conflicts with the General Plan have been identified in association with implementation of the Plans and associated discretionary actions. The City's General Plan Conservation Element contains policies for sustainable development, preservation of open space and wildlife, management of resources, and other initiatives to protect public health, safety, and welfare. Implementation of the Plans would support resource conservation and recreational opportunities consistent with City General Plan policies.

#### ***City of San Diego Climate Action Plan***

As discussed in Section 5.4.1.3(c), the City adopted a CAP Consistency Checklist that provides a streamlined review process for the analysis of GHG emissions. The MPU was evaluated against the three-step process provided in the Checklist. None of the contemplated subsequent projects would change any land use designation or intensity, and would be allowable uses within all zoning categories of the Plan area. Therefore, as identified in Step 1 of the Checklist, the MPU would be consistent with the CAP projections. Step 2 of the Checklist states that "development projects that would not require a certificate of occupancy from the Building Official shall implement best management practices [BMPs] for construction activities." As BMPs would be implemented for all subsequent projects under the MPU,

the measures identified in Step 2 do not apply to the MPU. Lastly, because the MPU would be consistent with land use and zoning designations, Step 3 of the Checklist does not apply.

Further, management actions identified in the NRMP would serve to enhance biological resources within the Park and would not be associated with GHG emissions. Thus, implementation of the NRMP would not conflict with implementation of the City's CAP.

As discussed in under Issue 1 above, implementation of the recommendations of the MPU would involve physical improvements including trail and parking area construction that would generate less than 900 MTCO<sub>2</sub>E annually. These activities and associated emissions would not have the potential to conflict with any of the CAPs five primary strategies for achieving the goals of the plan. CAP Strategies include:

- Strategy 1 (Energy & Water Efficient Buildings) – includes goals, actions, and targets with the aim of reducing building energy and water consumption.
- Strategy 2 (Clean & Renewable Energy) – includes goals for providing clean and renewable energy within the City.
- Strategy 3 (Bicycling, Walking, Transit & Land Use) – includes goals that relate to land use and planning.
- Strategy 4 (Zero Waste – Gas & Waste Management) – includes goals to divert solid waste and capture landfill methane gas emissions.
- Strategy 5 (Climate Resiliency) – calls for further analysis of the resiliency issues that face the various areas of the City.

The purpose of the MPU is to provide a structure for ongoing land and resource management, maintain and improve recreational trails, and provide additional recreational amenities. The MPU would be consistent with the goals of CAP and other applicable plans, policies, and regulations pertaining to the reduction of GHGs. Additionally, subsequent projects contemplated by the MPU would not result in a change in operational GHG emissions and construction emissions would not result in a substantial adverse effect related to GHG emissions. Impacts would be less than significant.

## **5.4.5 Significance of Impacts**

### **Issue 1: Greenhouse Gas Emissions**

GHG emissions due to construction activities and operation associated with the MPU would not result in a substantial adverse effect related to the generation of GHG emissions, either directly or indirectly, that may have a substantial effect on the environment. Thus, impacts associated with GHG emissions would be less than significant.

## **Issue 2: Conflicts with Plans or Policies**

Implementation of the Plans and associated discretionary actions would not result in an increase in long-term GHG emissions or conflict with applicable plans, policies, and regulations pertaining to the reduction of GHGs. Thus, impacts associated with GHG emissions would be less than significant.

### **5.4.6 Mitigation Framework**

Impacts would be less than significant. No mitigation is required.

## 5.5 Biological Resources

This section addresses potential impacts to biological resources due to implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). The existing biological resources within the study area used for this analysis are based on the NRMP prepared as part of the MPU. The NRMP was prepared in order to fulfill the City of San Diego's (City's) Multiple Species Conservation Program (MSCP) requirement to develop area-specific management directives (ASMDs) for the protection of natural resources at the Park, which is a core biological resource area and regional wildlife corridor. It should be noted that the NRMP would be implemented in addition to all other City regulations regarding the protection of biological resources, discussed in detail throughout this section.

### 5.5.1 Regulatory Framework

#### 5.5.1.1 Multiple Species Conservation Program

The MSCP is a comprehensive habitat conservation planning program for San Diego County. A goal of the MSCP is to preserve a network of habitat and open space, thereby protecting biodiversity. Local jurisdictions, including the City of San Diego, implement their portions of the MSCP through subarea plans, which describe specific implementing mechanisms.

The City of San Diego's MSCP Subarea Plan was approved in March 1997. The MSCP Subarea Plan is a plan and process for the issuance of permits under the federal and state Endangered Species Act (ESA) and the California Natural Communities Conservation Planning Act (CNCCPA) of 1991. The primary goal of the Subarea Plan is to conserve viable populations of sensitive species and to conserve regional biodiversity while allowing for reasonable economic growth.

In July 1997, the City signed an IA with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW). This serves as a binding contract between the City, USFWS, and CDFW that identifies the roles and responsibilities of the parties to implement the MSCP and Subarea Plan. The IA became effective on July 17, 1997, and allows the City to issue Incidental Take Authorizations for impacts to listed endangered or threatened species under the provisions of the MSCP. Applicable state and federal permits are still required for wetlands and listed species that are not covered by the MSCP.

#### a. Vernal Pool Habitat Conservation Plan

The City's Draft Vernal Pool Habitat Conservation Plan (VPHCP) is envisioned as a comprehensive planning approach to preserve vernal pool species and their habitat within the City's jurisdiction.

The Draft VPHCP is intended to provide an effective framework to protect, enhance, and restore vernal pool resources within the City of San Diego, while improving and streamlining the environmental permitting process for impacts to threatened and endangered species associated with vernal pools. The Draft VPHCP covers vernal pools and includes seven threatened and endangered covered species that do not currently have federal coverage under the City's MSCP Subarea Plan. Part of the VPHCP conservation strategy is to expand the City's existing Multi-Habitat Planning Area (MHPA) to conserve targeted vernal pool complexes in a configuration that maintains habitat function and viability of the following seven vernal pool species including two crustacean species: San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus wootoni*), and five plant species: Otay mesa mint (*Pogogyne nuduliscula*), California Orcutt grass (*Orcuttii californica*), San Diego button celery (*Eryngium aristulatum*), San Diego mesa mint (*Pogogyne abramsii*), and spreading navarretia (*Navarretia fossalis*), consistent with the Vernal Pool Recovery Plan (USFWS 1998); and to implement avoidance and minimization of impacts to vernal pools consistent with the Draft VPHCP and the City's Environmentally Sensitive Lands (ESL) Regulations. The Final Draft VPHCP and associated environmental document (Draft Environmental Impact Report/Environmental Impact Statement) have been released for public review with adoption anticipated in mid-2017.

High-quality pools occur in two locations within the Park. Activities that may impact vernal pools would be limited to those identified in the Draft VPHCP as covered activities that cause temporary habitat disruption but do not permanently alter landforms, and do not result in permanent habitat loss or negative impacts to vernal pool watersheds (e.g., recontoured vernal pool basins that will be restored). These activities include maintenance and use of existing trails, development of new trails, and brush management and weed abatement. The MPU incorporates the goals and objectives of the Draft VPHCP, and would be consistent with the requirement of the Draft Vernal Pool Management and Monitoring Plan (VPMMP). The Draft NRMP includes specific directives regarding vernal pools consistent with the Draft VPHCP and VPMMP. While no impacts to vernal pools are expected to occur within the Park, restoration efforts could result in impacts to vernal pool species included as a covered activity per the Draft VPHCP. Mitigation in accordance with the Draft VPHCP, ESL Regulations, and the City's Land Development Manual Biology Guidelines would be required.

## **b. Multi-Habitat Planning Area**

The MHPA is the area within which the permanent MSCP preserve is assembled and managed for its biological resources. Input from responsible agencies and other interested participants resulted in adoption of the City's MHPA in 1997. The City's MHPA areas are defined by "hardline" limits, "with limited development permitted based on the development area allowance of the OR-1-2 zone [open space residential zone]" (City of San Diego 1997).

The MHPA consists of public and private lands, much of which has been conserved. Conserved lands have been set aside for mitigation or purchased for conservation. These lands may be owned by the City or other agencies, may have easements, may be dedicated, or may have some restrictions placed upon the property through the City's processes that protects the overall quality of the resources and prohibits development.

Private land wholly within the MHPA is allowed only up to 25 percent development in the least sensitive area per the City's MSCP Subarea Plan. Should more than 25 percent development be desired, an MHPA

boundary line adjustment may be proposed. The City's MSCP Subarea Plan states that adjustments to the MHPA boundary line are permitted without the need to amend the City's Subarea Plan, provided the boundary adjustment results in an area of equivalent or higher biological value. To meet this standard, the area proposed for addition to the MHPA must meet the six functional equivalency criteria set forth in Section 5.4.2 of the Final MSCP Subarea Plan (City of San Diego 1997). All MHPA boundary line adjustments require approval by the Wildlife Agencies and approval from a City discretionary hearing body.

The majority of lands (87 percent) within the study area are located within the MHPA (Figure 5.5-1). The MHPA also includes regional wildlife corridors and core biological areas that are targeted for conservation. These lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region, and sensitive biological resources under the City's ESL Regulations. Conditionally compatible uses within the MHPA include passive recreation, utility lines and roads, limited water facilities and essential public facilities, limited low-density residential use, brush management zone 2, and limited agriculture (MSCP Subarea Plan Section 1.4.1).

For parcels located outside the MHPA, "there is no limit on the encroachment into sensitive biological resources, with the exception of wetlands, and listed non-covered species' habitat (which are regulated by state and federal agencies) and narrow endemic species." However, "impacts to sensitive biological resources must be assessed and mitigation, where necessary, must be provided in conformance" with the City's Biology Guidelines.

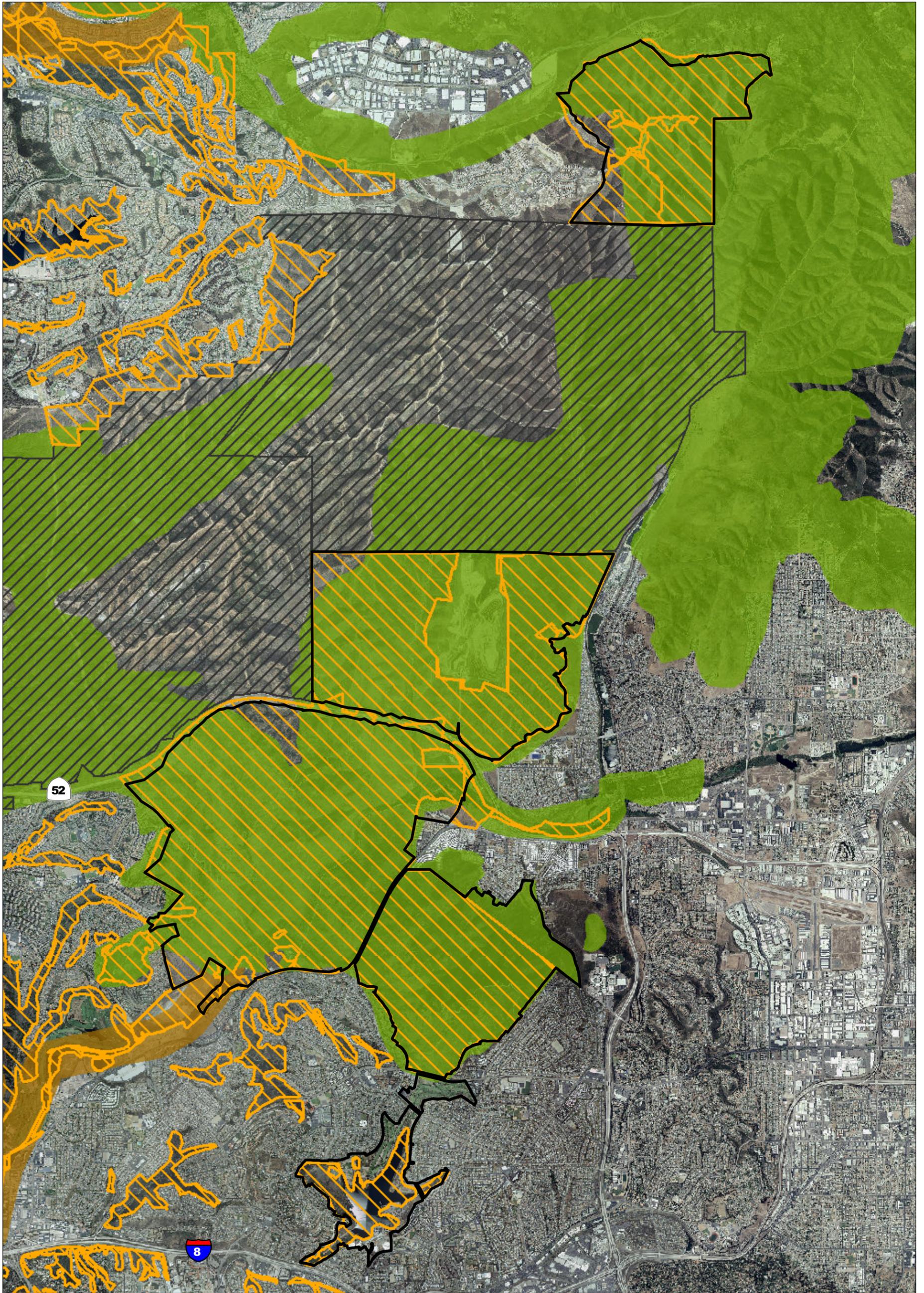
### **c. MSCP Management Policies and Directives**

The MSCP includes management priorities to be undertaken by the City as part of its MSCP implementation requirements. Those actions identified as Priority 1 are required to be implemented by the City as a condition of the MSCP Take Authorization to ensure that covered species are adequately protected. The actions identified as Priority 2 may be undertaken by the City as resources permit.

Section 1.5.2 of the City's Subarea Plan provides general management directives which apply to all areas within the MHPA. These general directives provide guidance on access and recreation within open space areas, including the Park. Priority directives include:

- Install sufficient signage and barriers identifying access to the MHPA;
- Locate trails, overlooks, and staging areas in least-sensitive areas in MHPA;
- Avoid paving trails;
- Minimize recreational trail widths;
- Limit equestrian trails near sensitive resources;
- Prohibit recreational off-road and cross county access to MHPA;
- Remove homeless camps from habitat areas; and
- Regularly maintain equestrian trails to remove manure.

The City's Subarea Plan provides guidelines for MHPA compliance and specific management recommendations within the existing Park, as well as the East Elliott area, referred to in Section 1.5.6 of the City's Subarea Plan as the "Eastern Area."



- |  |  |
|--|--|
|  Project Boundary       | <b>Generalized Core and Linkage Areas (MSCP 1998)</b>  |
|  MCAS Miramar           |  Core Resources   |
|  City of San Diego MHPA |  Habitat Linkages |

0 Miles 1 

FIGURE 5.5-1  
Project in Relation to MSCP Preserve Area

The goals and objectives for this area are described as follows (City of San Diego 1997):

The optimum condition for East Elliott and Mission Trails Regional Park would be a mosaic of native habitats and compatible recreational activities, with restoration and translocation of existing populations of endangered, threatened, and/or sensitive species where necessary.

The major issues identified in Section 1.5.6 of the City's Subarea Plan that required consideration for management in the Mission Trails/East Elliott area were identified as:

1. Intense land uses and activities adjacent to and in covered species habitat and linkages.
2. Potential associated impacts related to siting a future landfill in East Elliott.
3. Erosion, urban runoff, and overuse of recreational areas adjacent to sensitive drainage areas.
4. Off-road vehicle activity.
5. Exotic (non-native), invasive plants and animals.
6. Encroachment from existing development.
7. Utility, facility and road repair, construction, and maintenance activities.

The following Priority 1 guidelines are relevant to park management within the lifespan of the NRMP.

**Priority 1 (MSCP required directives):**

1. Prepare an NRMP for the Park to preserve and protect natural resources while encouraging public use and implementation of the Master Development Plan.
2. Maintain and clearly demarcate trails around the visitor center and other areas of high public use to minimize habitat destruction.
3. Limit future equestrian trails to specified trails which minimize trail edge disturbances and are no greater than 25 percent gradient.
4. Seasonally restrict, if necessary, areas along the San Diego River, including riparian restoration areas (except along established trails), to prevent disturbance of breeding areas.
5. As envisioned in the Master Development Plan, revegetate areas with eroded or denuded slopes for slope stability and habitat enhancement.
6. Incorporate adequate setbacks into future plans to develop an equestrian center near the San Diego River in order to minimize impacts associated with brown-headed cowbird (*Molothrus ater*) parasitism. Establish a cowbird trapping program to minimize effects on the least Bell's vireo (*Vireo bellii pusillus*) and other song birds.
7. Minimize lighting for the campground, and collect garbage frequently to reduce nuisance wildlife (raccoons, opossums, skunks, and ravens).
8. Establish signs to direct access and provide educational information at the periphery of sensitive resource areas and at points of access. Post signs to prohibit campfires, pets, firearms, and

camping (except where allowed). Also post road signs to identify wildlife corridors to help reduce road kills.

9. Protect the remaining populations of San Diego ambrosia (*Ambrosia pumila*) in the private property area immediately to the east of the Kumeyaay Lake campground. Explore methods to protect and enhance the San Diego ambrosia population, such as transplanting to more remote areas or the use of split-rail fencing.
10. In East Elliott, implement programs to educate future adjacent landowners pursuant to the general adjacency management guidelines in Section 1.5.2.
11. Preserve 90 percent of the population of San Diego ambrosia at the Park.
12. Monitor areas with a history of invasive species, such as artichoke thistle (*Cynara cardunculus*), tamarisk (*Tamarix* sp.), and giant reed (*Arundo donax*) for reinvasion.

### **5.5.1.2 City of San Diego Environmentally Sensitive Lands Regulations**

The purpose of the ESL Regulations (Land Development Code [LDC] Sections 143.0101 – 143.0160) is to protect, preserve and, where damaged, restore environmentally sensitive lands and the viability of the species supported by those lands. The ESL Regulations apply to all proposed development when environmentally sensitive lands, including sensitive biological resources, steep hillsides, floodplains, or coastal bluffs, are present. The regulations are designed to ensure that development occurs in a manner that protects natural resources and the natural and topographic character of the area, and retains biodiversity and interconnected habitats.

Within the study area, ESL resources include sensitive species and habitats, vernal pools and other wetlands, floodplains or areas of flooding, and steep hillsides. Many of the ESL resources are within the existing designated MHPA where development encroachment is restricted to 25 percent in the least sensitive portion of the site. Future development implemented in accordance with the Project will be required to comply with the applicable sections of the ESL Regulations related to biological resources, wetlands, and the MSCP/MHPA.

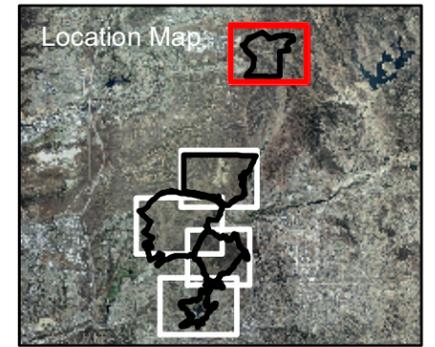
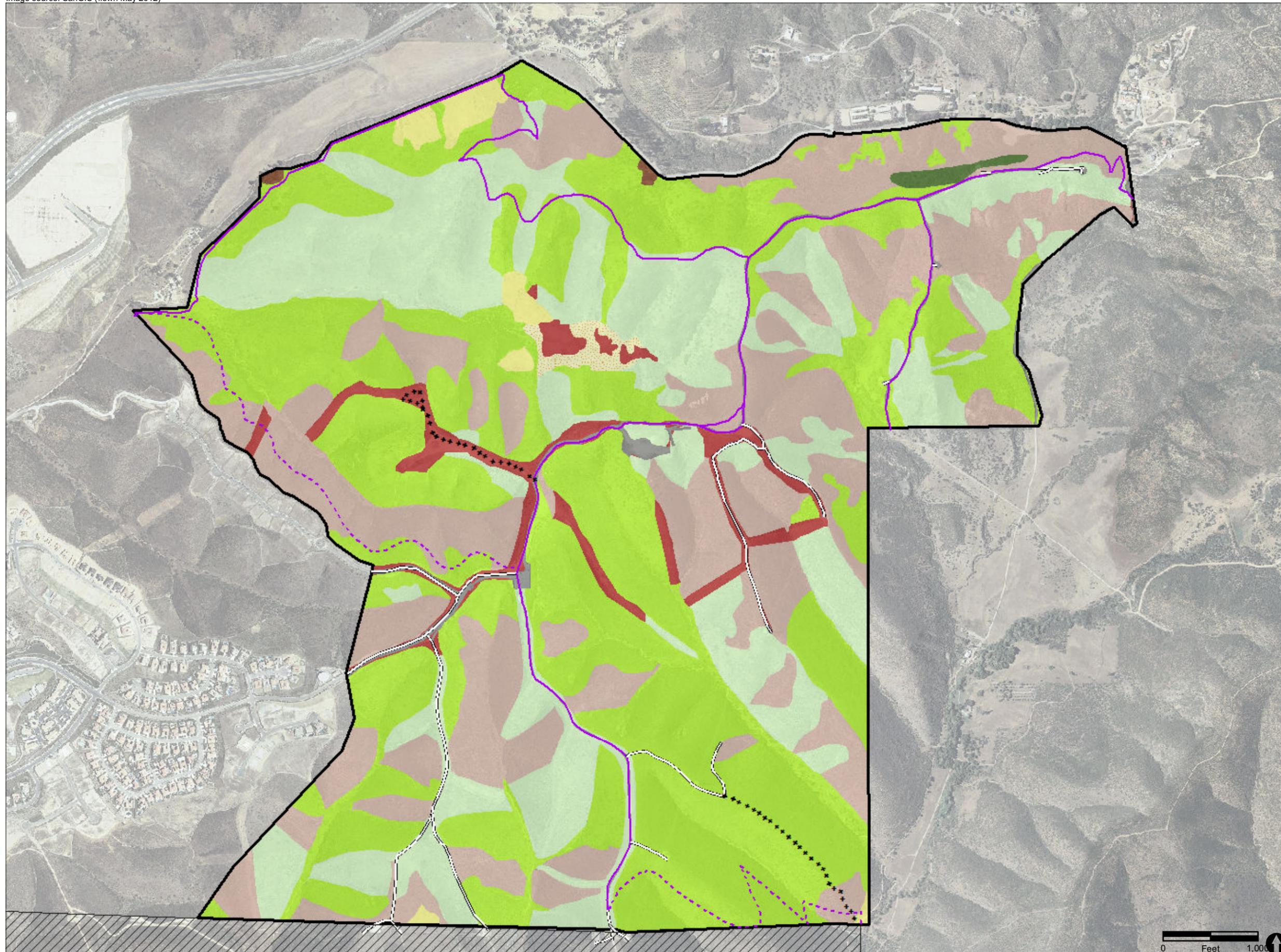
## **5.5.2 Environmental Setting**

The biological resources in the study area have been researched through biological inventories, vegetation mapping, MSCP monitoring, archive research, and general scientific research, as further detailed in the NRMP.

### **5.5.2.1 Vegetation Communities**

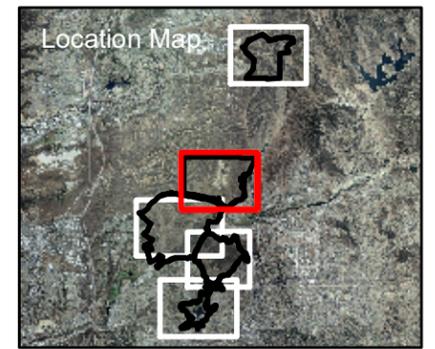
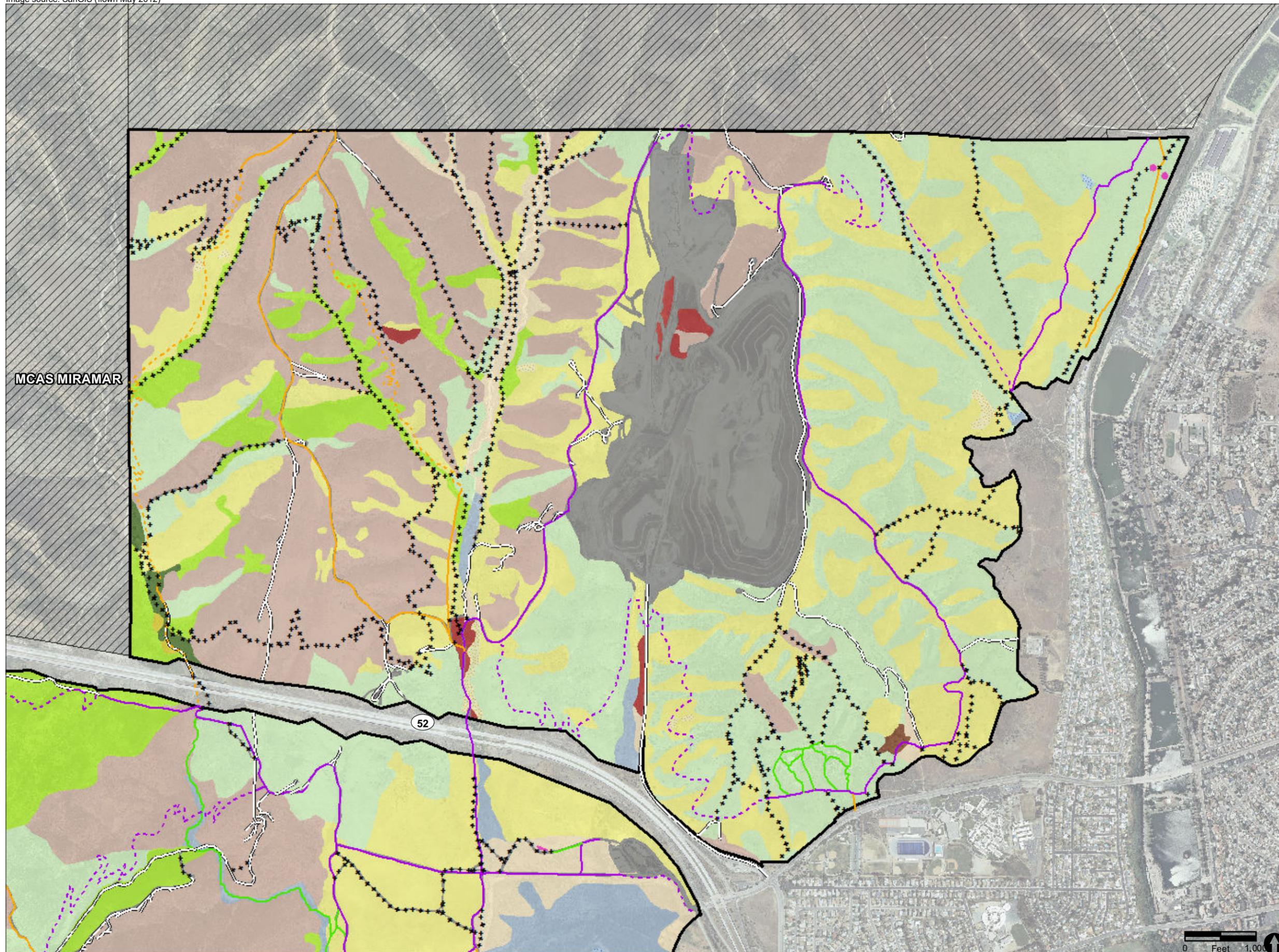
#### **a. Holland Vegetation Communities**

Holland vegetation descriptions are designed to be a “coarse filter” dividing the landscape into manageable vegetation units (Holland 1986). Under the Holland system, the study area contains a total of 18 vegetation communities/land cover types (Table 5.5-1; Figures 5.5-2a through 5.5-2e).



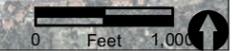
- Project Boundary
- MCAS Miramar
- Vegetation Communities**
- Chamise Chaparral
- Coast Live Oak Woodland
- Diegan Coastal Sage Scrub
- Disturbed Habitat
- Eucalyptus Woodland
- Non-native Grassland
- Southern Mixed Chaparral
- Urban/Developed
- Valley Needlegrass Grassland
- Trail Closures**
- Planned Trail Closures
- Existing Trails-Proposed Use**
- Other Circulation
- Multi-use Trail
- Proposed New Trails**
- Multi-use Trail

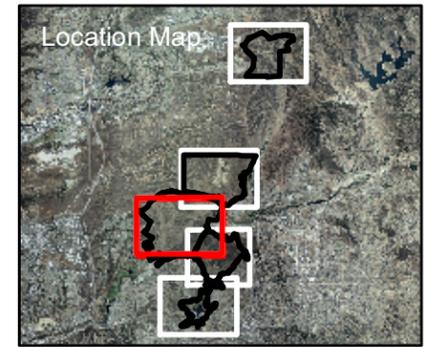
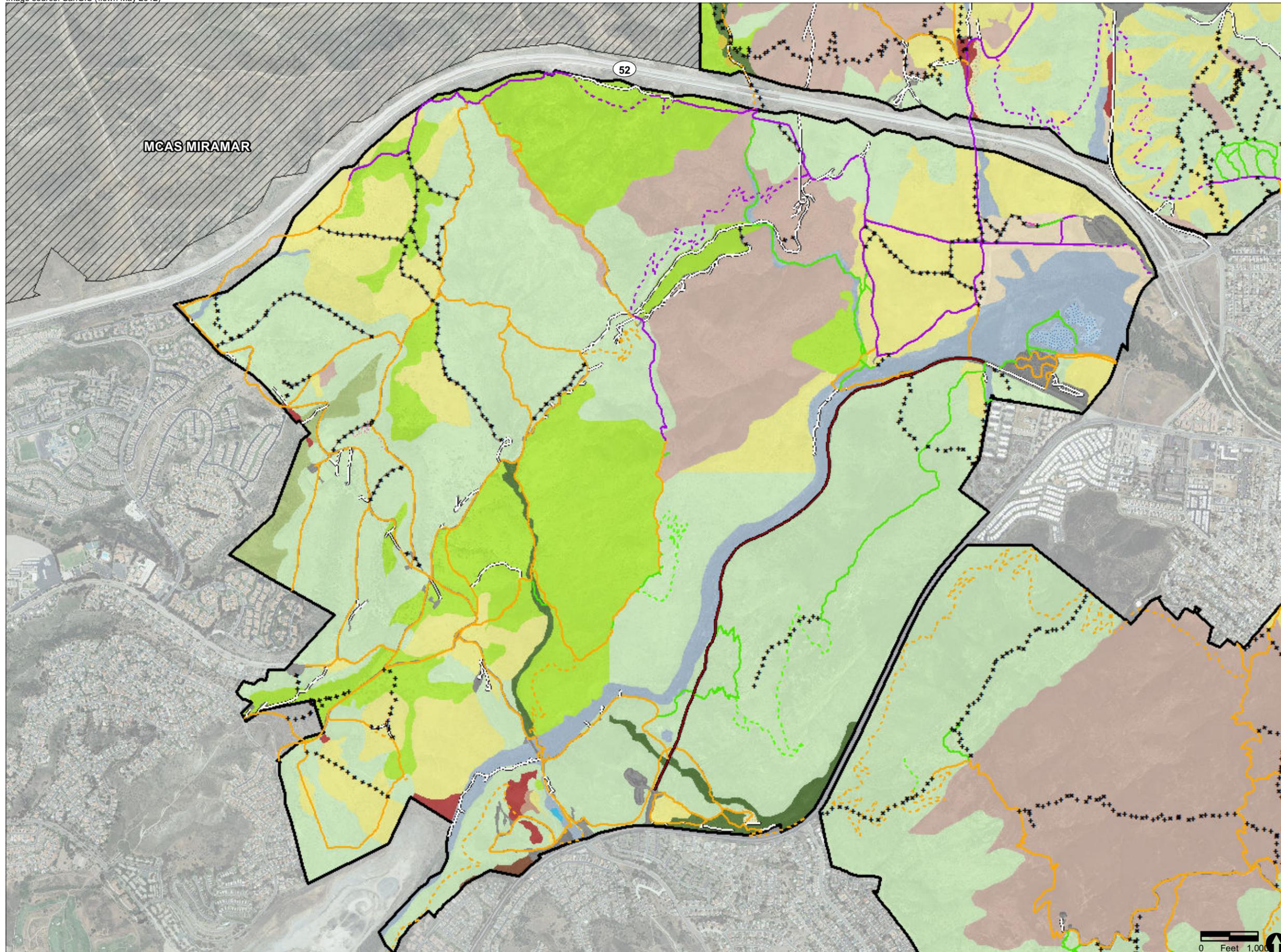
FIGURE 5.5-2a  
Vegetation Communities  
within West Sycamore Area



- Project Boundary
- MCAS Miramar
- Vegetation Communities**
  - Chamise Chaparral
  - Coast Live Oak Woodland
  - Diegan Coastal Sage Scrub
  - Disturbed Habitat
  - Eucalyptus Woodland
  - Native Grassland
  - Non-native Grassland
  - Open Water
  - Southern Mixed Chaparral
  - Southern Riparian Scrub
  - Southern Willow Scrub
  - Urban/Developed
  - Valley Needlegrass Grassland
  - Vernal Pool
- Trail Closures**
  - Planned Trail Closures
- Existing Trails-Proposed Use**
  - Other Circulation
  - Hiking Trail
  - Hike/Bike Trail
  - Multi-use Trail
- Proposed New Trails**
  - Hike/Bike Trail
  - Multi-use Trail

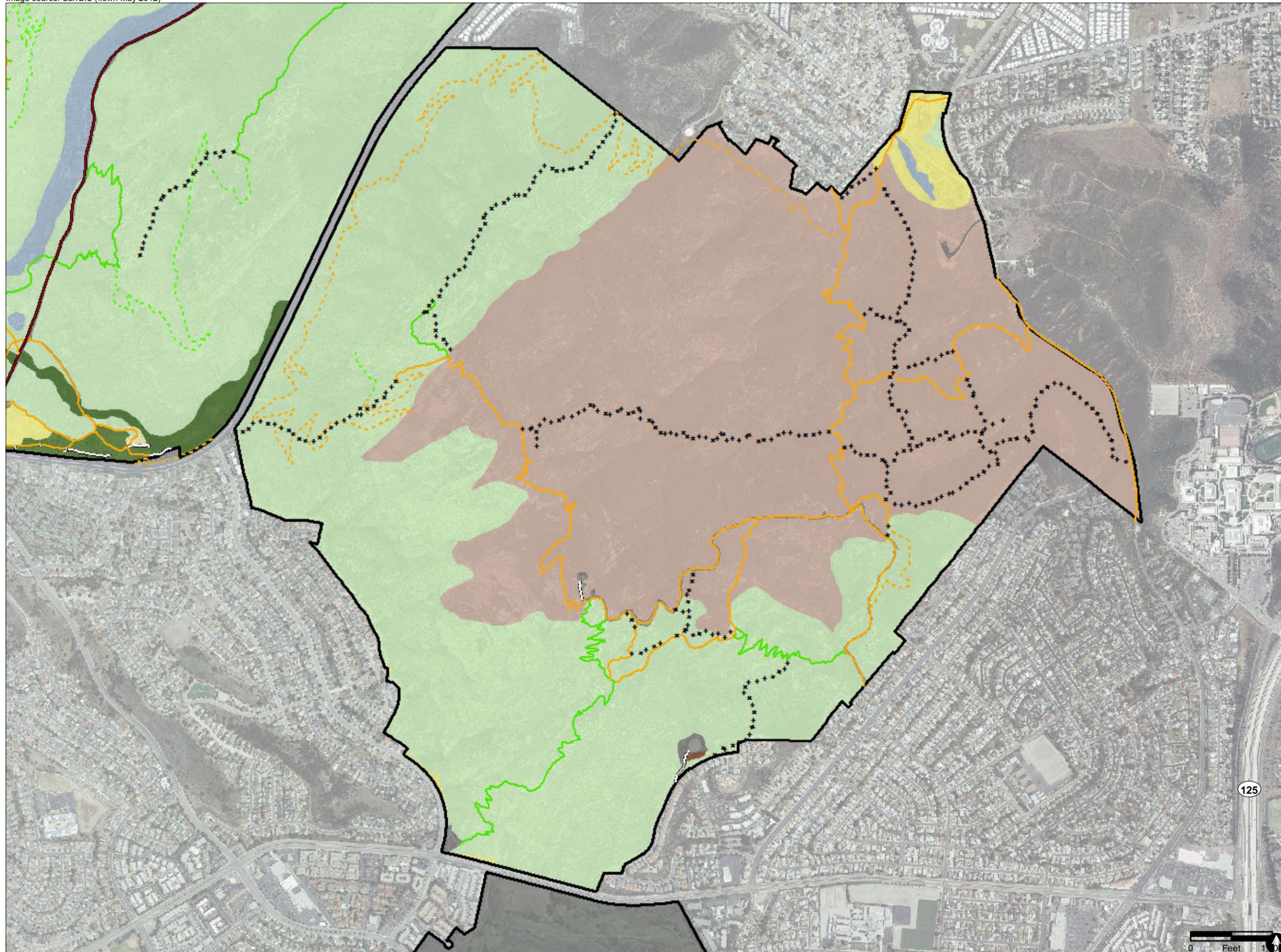
FIGURE 5.5-2b  
Vegetation Communities  
within East Elliot Area





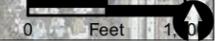
- Project Boundary
- MCAS Miramar
- Vegetation Communities**
- Chamise Chaparral
- Coast Live Oak Woodland
- Coastal and Valley Freshwater Marsh
- Diegan Coastal Sage Scrub
- Disturbed Habitat
- Eucalyptus Woodland
- Mule Fat Scrub
- Native Grassland
- Non-native Grassland
- Open Water
- Scrub Oak Chaparral
- Southern Mixed Chaparral
- Southern Riparian Scrub
- Southern Willow Scrub
- Urban/Developed
- Valley Needlegrass Grassland
- Vernal Pool
- Trail Closures**
- Planned Trail Closures
- Existing Trails-Proposed Use**
- Other Circulation
- Hiking Trail
- Hike/Bike Trail
- Multi-use Trail
- Class I Multi-use Path
- Proposed New Trails**
- Hiking Trail
- Hike/Bike Trail
- Multi-use Trail

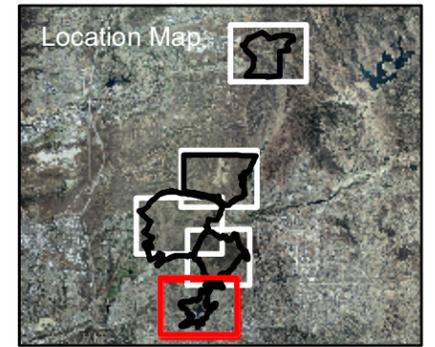
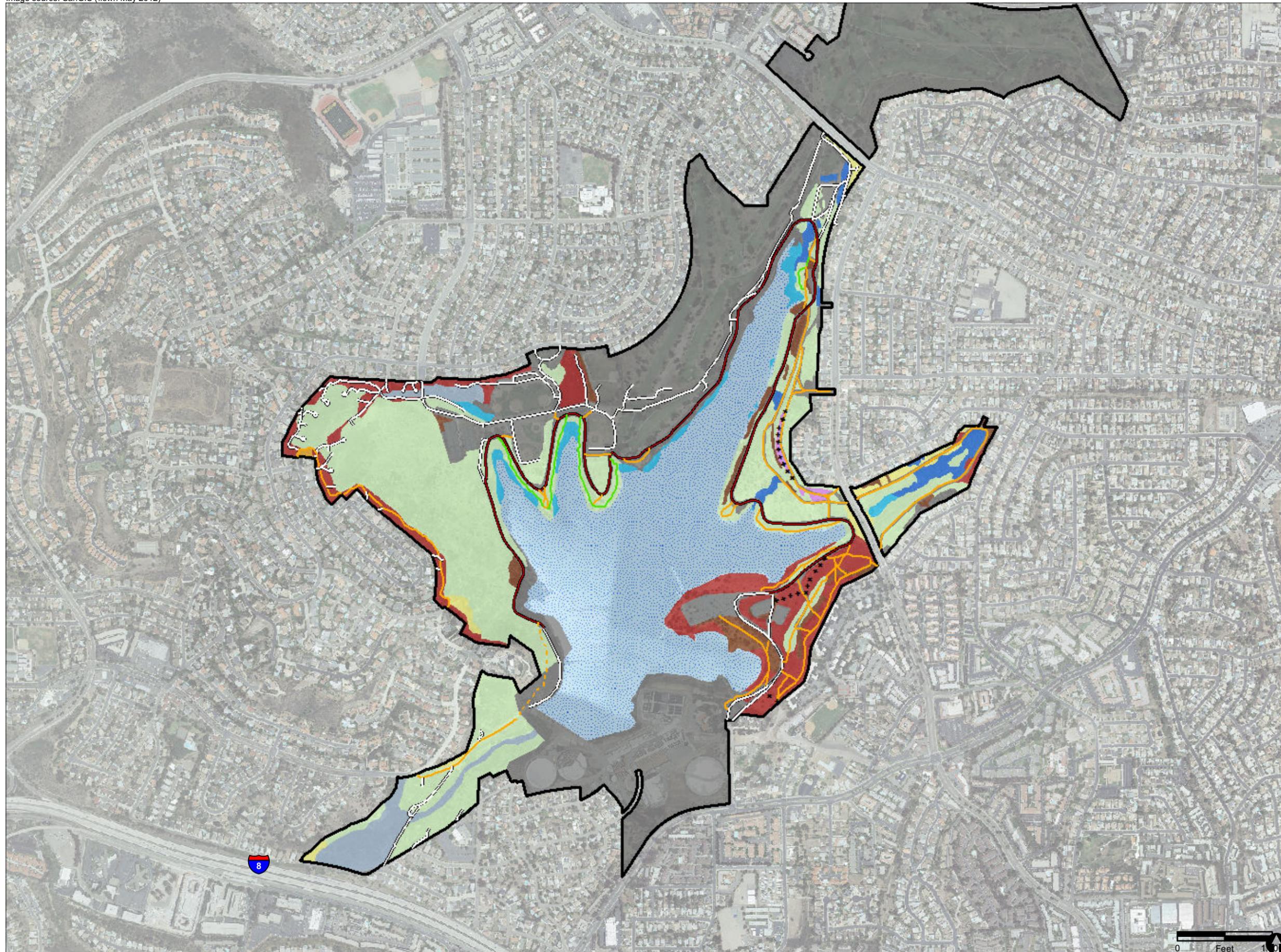
**FIGURE 5.5-2c**  
Vegetation Communities  
within Fortuna Mountain Area



- Project Boundary
- Vegetation Communities**
  - Chamise Chaparral
  - Coast Live Oak Woodland
  - Diegan Coastal Sage Scrub
  - Eucalyptus Woodland
  - Non-native Grassland
  - Southern Mixed Chaparral
  - Southern Willow Scrub
  - Urban/Developed
  - Valley Needlegrass Grassland
- Trail Closures**
  - Planned Trail Closures
- Existing Trails-Proposed Use**
  - Other Circulation
  - Hiking Trail
  - Hike/Bike Trail
  - Class I Multi-use Path
- Proposed New Trails**
  - Hiking Trail
  - Hike/Bike Trail

FIGURE 5.5-2d  
Vegetation Communities  
within Cowles Mountain Area





-  Project Boundary
- Vegetation Communities**
-  Coastal and Valley Freshwater Marsh
-  Diegan Coastal Sage Scrub
-  Disturbed Habitat
-  Disturbed Wetland
-  Eucalyptus Woodland
-  Non-native Grassland
-  Non-native Vegetation
-  Open Water
-  Southern Willow Scrub
-  Urban/Developed
-  Wildflower Field
- Trail Closures**
-  Planned Trail Closures
- Existing Trails-Proposed Use**
-  Other Circulation
-  Hiking Trail
-  Hike/Bike Trail
-  Class I Multi-use Path
- Proposed New Trails**
-  Hike/Bike Trail

FIGURE 5.5-2e  
Vegetation Communities  
within Lake Murray Area

Vegetation Community	Holland Code	Acres
Eucalyptus Woodland	11100	20.3
Disturbed Habitat	11300	127.3
Urban/Developed	12000	696
Open Water	13100	149.3
Diegan Coastal Sage Scrub	32500	3,545.10
Southern Mixed Chaparral	37120	1,280.50
Chamise Chaparral	37200	2,140.00
Scrub Oak Chaparral	37900	69.7
Native Grassland	42100	1.5
Valley Needlegrass Grassland	42110	17.2
Non-native Grassland	42200	1,161.00
Wildflower Field	42300	1.2
San Diego Mesa Vernal Pool	44320	0.8
Coastal and Freshwater Marsh	52410	4.3
Southern Riparian Scrub	63300	176.4
Mule Fat Scrub	63310	1.4
Southern Willow Scrub	63320	236.2
Coast Live Oak Woodland	71160	58.7

## **b. San Diego Association of Governments Vegetation Communities**

Vegetation community classifications below follow the San Diego Association of Governments. Under this system, vegetation communities are first classified into groups by similarities in diagnostic growth forms reflecting local environmental conditions (Table 5.5-2).

Vegetation Group	Acres
Hydrophytic Herbaceous Vegetation	12.2
Riparian Forests and Woodlands	242.2
Riparian Shrublands	177.8
Sclerophyllous, Evergreen Shrublands	3,603.1
Soft-leaved, Drought-deciduous Shrublands	3,512.2
Upland Forests and Woodlands	79.4
Upland Herbaceous Vegetation	1,306.7

Within these groups, vegetation communities are further divided into alliances, which are classified by the dominant or co-occurring species. Subsequently, a subset of diagnostic plants within each alliance is referred to as associations. A total of 7 groups, 38 alliances, and 40 associations were mapped within the study area.

### 5.5.2.2 Plant Species

The study area contains a high diversity of plant species resulting from the multiple niches created by complex topography, soils, and its geographic location in coastal San Diego County. The geology and soil types, which can provide biological indicators for plant species and related habitat types, are depicted in Figures 5.9-1 and 5.9-2 of Section 5.9, Geology.

The study area currently supports a total of 244 plant species, representing 61 plant families. Of this total, 196 (80 percent) are species native to southern California, and 52 (20 percent) are introduced species. Of these introduced species, the California Invasive Plant Council (Cal-IPC) has listed 2 as “high” (severe ecological damage potential), 19 as “moderate” (significant, but not severe, ecological damage potential), and 9 as having “limited” (minor ecological damage potential) (Cal-IPC 2012). A detailed list of plant species that have been observed/detected in the study area is in the NRMP.

Figure 5.8-1 in Section 5.8, Hydrology and Water Quality, depicts the watershed and hydrology in the Park area, which can provide biological indicators for plant species and habitat types.

### 5.5.2.3 Wildlife Species

The study area currently supports a diverse wildlife population, including at least 26 mammals, 101 birds, 17 reptiles and amphibians, and more than 600 invertebrate species (San Diego Natural History Museum 2009). The diversity of animal species observed or expected to occur within the study area is typical of large, ecologically connected open space areas with a mix of coastal sage scrub, chaparral, grassland, and riparian woodland habitats in coastal San Diego County. The entire list of wildlife species that have been observed/detected in the study area are listed in the NRMP. The study area’s variety of habitats, topography, and hydrologic features further enhance this diversity:

- *Open grasslands* provide burrowing opportunities for many reptiles and small mammals, as well as foraging opportunities for many raptors.
- *Scrub communities* provide habitat for a wide variety of reptile, mammal, and avian species, and often include steeper topography and rocky outcrops.
- *Riparian corridors* provide a perennial water source for amphibians, mesic reptiles, riparian birds, and foraging mammals.
- *Steep cliff faces* host at least four bat species and provide shelter for nesting avian species.

## 5.5.2.4 Wildlife Corridors

### a. Regional Connectivity

Maintaining connectivity amongst core MSCP areas as well as to lands within the greater southern California region is essential for maintaining the biodiversity of the MHPA and resilience of species and natural communities in San Diego (San Diego Management and Monitoring Program [SDMMP] 2010). As shown in Figure 5.5-3, regionally, the study area is a critical regional open space link for the movement of animals between inland natural areas surrounding Marine Corps Air Station (MCAS) Miramar, west through Sycamore Canyon Preserve and various County parks in the Central Poway/San Vicente Reservoir/North Poway Core Resource Area, and eventually east to the Cleveland National Forest (Ogden Environmental 1998).

### b. Corridor Constraints

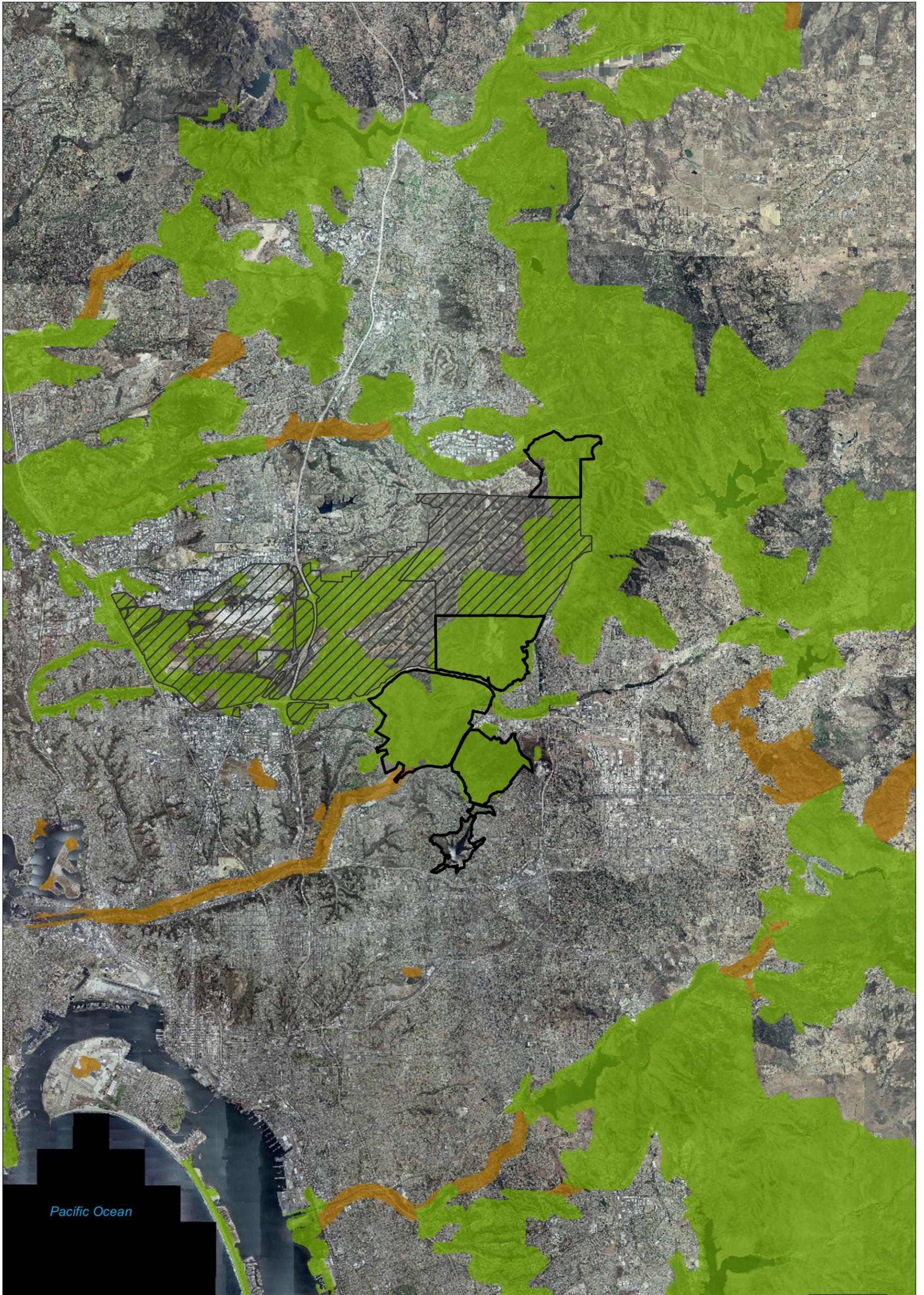
The Park's areas are separated by man-made and topographic boundaries, and as a result, has varying levels of urban edge and connectivity (Table 5.5-3).

Park Subarea	% of Area Bounded by Developed Lands	MSCP Core Resource Area?*
Lake Murray	100	No
Cowles Mountain	85	Yes
Mission Gorge	24	Yes
Fortuna Mountain	29	Yes
East Elliott	47	Yes
West Sycamore	8	Yes

\*Reproduced from Table 2-2 of City MSCP Subarea Plan.

The Lake Murray area, while containing some significant biological resources, is not within an established MSCP Core Resource Area and is entirely bounded by developed lands abutting the Cowles Mountain area to the north. Natural vegetation between the Lake Murray and Cowles Mountain areas are separated by a golf course and two paved roads (Jackson Drive and Navajo Road). The Cowles Mountain area is within a Core Resource Area, and is approximately 85 percent bounded by developed lands and abuts the Mission Gorge area to the northwest. The Cowles Mountain and Mission Gorge areas are separated by Mission Gorge Road, a four-lane highway (Figure 5.5-4).

The Mission Gorge area is approximately 24 percent bounded by developed lands, is within a Core Resource Area, and directly abuts open space to the southeast and northwest. The Fortuna Mountain area has developed lands on 29 percent of its boundaries and is adjacent to the Mission Gorge area along its southeastern border and East Elliott to the north. The Fortuna Mountain and East Elliott areas are separated by State Route 52 (SR-52; see below). The East Elliott area shares 47 percent of its boundaries with developed lands, including the City of Santee to the east and the Sycamore Landfill internally. East Elliott is bordered to the north by MCAS Miramar, which is predominantly open space

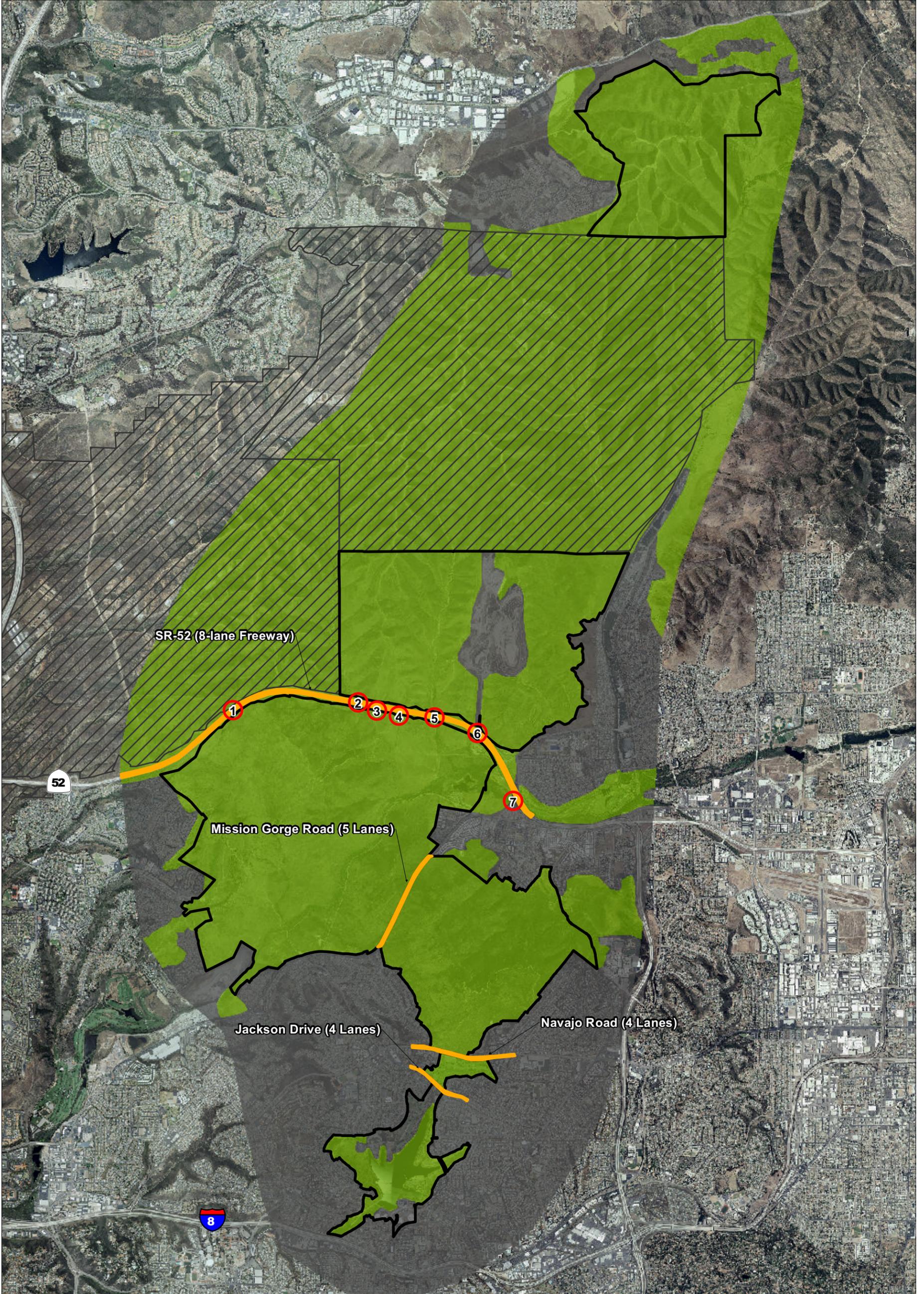


-  Project Boundary
-  MCAS Miramar
- Generalized Core and Linkage Areas (MSCP 1998)**
-  Core Resources
-  Habitat Linkages

0 Miles 2

FIGURE 5.5-3

Regional Wildlife Corridors



-  Project Boundary
-  MCAS Miramar
-  Existing Wildlife Crossings
-  Open Space
-  Developed
-  Road

0 Miles 1 

FIGURE 5.5-4  
Preserve-level Connectivity within Study Area

and separates East Elliott from West Sycamore. The West Sycamore area is bounded by MCAS Miramar to the south, the Goodan Ranch Preserve to the east, and development to the northwest.

In 2010, the Western Tracking Institute (WTI) conducted a study on the presence and movement of mammals within the Park. Although mammal populations were observed to be plentiful and relatively diverse, some concern was noted regarding internal constraints to wildlife movement, with particular emphasis on wildlife crossing beneath SR-52 (WTI 2010). Large, MSCP-covered mammals with extensive home ranges, such as mountain lion (*Puma concolor*) and mule deer (*Odocoileus hemionus*), require these crossings to extend foraging ranges and facilitate gene flow between disparate populations.

SR-52 is an eight-lane highway which bisects the Park between the East Elliott and Fortuna Mountain areas, and poses an existing constraint on connectivity between the existing Park areas and open space to the north (East Elliott and West Sycamore expansion areas). A total of seven wildlife undercrossings beneath SR-52 currently exist and limit the effects of habitat fragmentation to a number of species (WTI 2010). As shown in Figure 5.5-4, these existing crossings west to east are (1) the SR-52 “wildlife tunnel,” (2) the Oak Canyon Bridge undercrossing, (3) the Spring Canyon Bridge undercrossing, (4) the Mast Boulevard culverts, (5) the eastern San Diego River course, and (6 and 7) two small culverts. Of these seven crossings, two (Oak Canyon Bridge undercrossing and Spring Canyon Bridge undercrossing) are considered viable movement corridors for large mammals. The “wildlife tunnel” and Mast Boulevard culverts undercrossings are in need of enhancement or maintenance; the remaining wildlife undercrossings are not in current need of management action.

### 5.5.2.5 Sensitive Biological Resources

#### a. Sensitive Vegetation Communities

Sensitive vegetation communities are those that are of highly limited distribution, and may also support concentrations of sensitive plant or wildlife species. Upland communities within the MSCP are divided into four tiers of sensitivity based on rarity and ecological importance. Tiers I, II, and III are considered sensitive and thus impacts to these vegetation communities within the study area would require mitigation (Table 5.5-4). Tier IV includes non-sensitive lands, such as disturbed habitat and urban/developed lands; impacts to Tier IV lands do not require mitigation.

Tier	Holland Vegetation Community	Acres
Tier I (rare uplands)	Native Grassland Valley Needlegrass Grassland Wildflower Field	19.9
Tier II (uncommon uplands)	Diegan Coastal Sage Scrub	3,545.1
Tier IIIA (common uplands)	Chamise Chaparral Southern Mixed Chaparral Scrub Oak Chaparral	3,490.2
Tier IIIB (common uplands)	Non-native Grassland	1,161.0

All wetland vegetation communities within the study area, including vernal pools, are considered sensitive and are regulated by the City, as well as U.S. Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB) (Table 5.5-5). Site-specific analysis would be required for any subsequent project implemented in accordance with the Plans to determine which agencies would have regulatory authority on basins with fairy shrimp.

Vegetation Community	Acres
Southern Willow Scrub	236.2
Southern Riparian Scrub	176.4
Open Water	149.3
Coastal and Freshwater Marsh	4.3
Mule Fat Scrub	1.4
San Diego Mesa Vernal Pool	0.8

## **b. Sensitive Species**

A plant or wildlife species is considered sensitive if it: (1) is listed by state or federal agencies as threatened or endangered or is a candidate or proposed for such listing; (2) is considered rare, endangered, or threatened by the State of California and/or listed in the California Natural Diversity Database (CNDDDB; State of California 2012a, 2012b, 2011a, 2011b); (3) is a narrow endemic or covered species in the City of San Diego MSCP Subarea Plan (City of San Diego 1997); (4) has a California Native Plant Society (CNPS) Rare Plant Ranking of 1B or 2 in the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2012); or (5) is considered rare, sensitive, or noteworthy by local conservation organizations or specialists. Noteworthy plant species are considered to be those that have a CNPS Rare Plant Ranking of 3 and 4 in the *Inventory*.

The study area contains 23 sensitive plant species and 41 sensitive wildlife species, including 7 plant species and 16 wildlife species covered by the MSCP (Tables 5.5-6 and 5.5-7) Plant and wildlife species identified within the Park boundaries are provided as Appendix A-A and Appendix A-B of the NRMP.

Table 5.5-6 Sensitive Plant Species Observed within Study Area				
Common Name	Scientific Name	CNPS Rank	Federal/ State	City of San Diego
San Diego thornmint	<i>Acanthomintha ilicifolia</i>	1B.1	FT/CE	NE, MSCP
San Diego ambrosia	<i>Ambrosia pumila</i>	1B.1	FE	NE, MSCP
San Diego sagewort	<i>Artemisia palmeri</i>	4.2	-	-
San Diego sunflower	<i>Bahiopsis (=Viguiera) lacinata</i>	4.2	-	-
San Diego goldenstar	<i>Bloomeria clevelandii</i>	1B.1	-	MSCP
Orcutt's brodiaea	<i>Brodiaea orcuttii</i>	1B.1	-	MSCP
Peninsular spineflower	<i>Chorizanthe leptotheca</i>	4.2	-	-
Delicate clarkia	<i>Clarkia delicata</i>	1B.2	-	-
Summer holly	<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	1B.2	-	-
Western dichondra	<i>Dichondra occidentalis</i>	4.2	-	-
Variiegated dudleya	<i>Dudleya variegata</i>	1B.2	-	NE, MSCP
Graceful tarplant	<i>Holocarpha virgata</i> ssp. <i>elongata</i>	4.2	-	-
Decumbent goldenbush	<i>Isocoma menziesii</i> var. <i>decumbens</i>	1B.2	-	-
San Diego marsh elder	<i>Iva hayesiana</i>	2.2	-	-
San Diego barrel cactus	<i>Ferocactus viridescens</i>	2.1	-	MSCP
Robinson's pepper grass	<i>Lepidium virginicum</i> var. <i>robinsonii</i>	1B.2	-	-
Willow monardella	<i>Monardella viminea</i>	1B.1	FE/CE	MSCP
California adder's-tongue fern	<i>Ophioglossum californicum</i>	4.2	-	-
Nuttall's scrub oak	<i>Quercus dumosa</i>	1B.1	-	-
Chaparral ragwort	<i>Senecio aphanactis</i>	2.2	-	-
Purple stemodia	<i>Stemodia durantifolia</i>	2.1	-	-
San Diego County needlegrass	<i>Stipa [=Achnatherum] diegoensis</i>	4.2	-	-
Rush-like bristtleweed	<i>Xanthisma juncea</i>	4.3	-	-
<b>FEDERAL CANDIDATES AND LISTED PLANTS</b>		<b>STATE LISTED PLANTS</b>		
FE = Federally listed endangered		CE = State listed endangered		
FT = Federally listed threatened		CR = State listed rare		
FC = Federal candidate for listing as endangered or threatened		CT = State listed threatened		
<b>CALIFORNIA NATIVE PLANT SOCIETY (CNPS) LISTS</b>				
1A = Species presumed extinct.				
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.				
2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.				
3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.				
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.				
<b>CITY OF SAN DIEGO</b>				
NE = Narrow endemic				
MSCP = Multiple Species Conservation Program covered species				

Table 5.5-7 Sensitive Wildlife Species Observed within Study Area			
Common Name	Scientific Name	Federal/ State	MSCP Covered?
<b>Invertebrates</b>			
San Diego fairy shrimp	<i>Branchinecta sandiegonensis</i>	FE	No
Hermes copper butterfly	<i>Lycaena hermes</i>	CSA	No
Quino checkerspot butterfly	<i>Euphydryas editha quino</i>	FE	No
<b>Amphibians</b>			
Western spadefoot toad	<i>Spea hammondi</i>	CSC	No
<b>Reptiles</b>			
Belding's orange-throated whiptail	<i>Aspidoscelis hyperthra beldingi</i>	CSC	Yes
Coastal western whiptail	<i>Aspidoscelis tigris stejnegeri</i>	CSA	No
Southern Pacific pond turtle	<i>Actinemys marmorata pallida</i>	CSC	Yes
Coronado skink	<i>Eumeces skiltonianus interparietalis</i>	CSC	No
San Diego horned lizard	<i>Phrynosoma coronatum blainvillii</i>	CSC	Yes
Coast patch-nosed snake	<i>Salvadora hexalepis virgultea</i>	CSC	No
Two-striped garter snake	<i>Thamnophis hammondi</i>	CSC	No
Northern red diamond rattlesnake	<i>Crotalus ruber</i>	CSC	No
<b>Birds</b>			
Cooper's hawk	<i>Accipiter cooperi</i>	CSA	Yes
Southern California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	CSC	Yes
Golden eagle	<i>Aquila chrysaetos canadensis</i>	CSC, CFP	Yes
Grasshopper sparrow	<i>Ammodramus savannarum</i>	CSC	No
Great blue heron	<i>Ardea herodias</i>	CSA	No
Coastal cactus wren	<i>Campylorhynchus brunneicapillus couesi</i>	CSC	Yes
Great egret	<i>Casmerodius albus</i>	CSA	No
Northern harrier	<i>Circus cyaneus</i>	CSC	Yes
Yellow warbler	<i>Dendroica petechia</i>	CSC	No
White-tailed kite	<i>Elanus leucurus</i>	CFP	No
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE/SE	Yes
California horned lark	<i>Eremophila alpestris actia</i>	CSC	No
Peregrine falcon	<i>Falco peregrinus anatum</i>	SE, CFP	Yes
Yellow-breasted chat	<i>Icteria virens</i>	CSC	No
Black-crowned night heron	<i>Nycticorax nycticorax</i>	CSA	No
Double-crested cormorant	<i>Phalacrocorax auritus albociliatus</i>	CSC	No
California gnatcatcher	<i>Polioptila californica californica</i>	FT, CSC	Yes
Western bluebird	<i>Sialia mexicana occidentalis</i>	-	Yes
Light-footed clapper rail	<i>Rallus longirostris levipes</i>	FE/SE, CFP	Yes
Least Bell's vireo	<i>Vireo bellii pusillus</i>	FE/SE	Yes
<b>Mammals</b>			
Dulzura California pocket mouse	<i>Chaetodipus californicus femoralis</i>	CSC	No
Northwestern San Diego pocket mouse	<i>Chaetodipus fallax fallax</i>	CSC	No
Western mastiff bat	<i>Eumops perotis californicus</i>	CSC	No
Western red bat	<i>Lasiurus blossevillii</i>	CSC	No
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	CSC	No

<b>Table 5.5-7 Sensitive Wildlife Species Observed within Study Area</b>			
Common Name	Scientific Name	Federal/ State	MSCP Covered?
Southern mule deer	<i>Odocoileus hemionus fuliginata</i>	-	Yes
Mountain lion	<i>Puma concolor</i>	CFP	Yes
Pocketed free-tailed bat	<i>Nyctinomops femorosacca</i>	CSC	No
Big free-tailed bat	<i>Nyctinomops macrotis</i>	CSC	No
<b>FEDERAL/STATE</b>			
FE = Federally listed endangered			
FT = Federally listed threatened			
SE = State listed endangered			
CSC = California Department of Fish and Game species of special concern			
CSA = California Department of Fish and Game Special Animal			
CFP = California fully protected species			

### 5.5.2.6 Threats to Sensitive Biological Resources

The NRMP identifies specific, preserve-level threats to sensitive species and habitats that occur within the study area. Although direct habitat loss due to development is not a threat within conserved lands, habitat degradation and other indirect impacts due to both natural and anthropogenic threats continue to affect native species within the study area. Threats are organized and analyzed below based on their scale and, consequently, the ability of preserve-level management actions effectiveness. For example, although climate change may pose a regional threat to some sensitive species, individual management actions taken at the Park to combat climate change are not expected to be at the scale necessary to address the threat.

#### a. Human Use of Preserves

Recreational uses can impact natural resources within the Park through erosion, habitat fragmentation, trampling, and the invasion of non-native plant species associated with trail building and their use. Recreational use stressors can differ in intensity and extent depending on whether use is authorized or unauthorized. Current recreational uses at the Park include mountain biking, rock climbing, horseback riding, hiking, running (group events and individual runners), birding, and geocaching.

Trail-associated recreation creates long, linear impacts with relatively small widths. Trail widening and migration may occur as a result of group events where participants crowd trails. Impacts include:

- Soil disturbance especially during off-trail use and/or when the substrate is saturated;
- Trampling damage to plant material;
- Compacted soils which may inhibit root growth from adjacent vegetation and/or seedling recruitment;
- Introduction vector for invasive plant species (such as weed seeds transported via dirt clods in bike treads or weed seeds found in horse feces);
- Significant negative effects on wildlife corridors, especially when recreation occurs at night when many large mammals are active; and

- Local fragmentation of the distribution of species sensitive to edge effects, the presence of humans, and/or associated domestic animals and recreational equipment.

Educating visitors about proper trail etiquette, designing trails to avoid sensitive resources, limiting authorized trail access to daylight hours, having clearly posted regulations, and having a clear patrol and violation enforcement strategy can help reduce some of the risks posed by recreation.

## **b. Invasive/Exotic Species**

Exotic species threaten natural resources within the Park through direct competition with native species, habitat degradation, and the introduction of disease.

### ***Plant Species***

Invasive plant species have the potential to displace and dominate native species, hybridize with native plant species, provide food and habitat for invasive animal species, and disturb normal ecosystem functions such as nutrient cycling, wetland hydrology, sedimentation, fire frequency, and erosion (Brossard et al. 2000). Disturbances, such as fire, mammal burrowing, recreational activities, and development adjacent to natural open space, create opportunities for non-native species to invade and establish themselves. The Park contains a matrix of recreational trails, maintenance roads, and utility rights-of-way and, consequently, opportunities for the introduction and establishment of invasive species.

### ***Wildlife Species***

Populations of native plants and animals can be significantly disrupted by the introduction of exotic wildlife and domestic animals into intact and disturbed habitats at the Park. Domestic animals, such as dogs, cats, and horses, have been shown to be linked with increased weed cover and density (via nutrients and seeds found in feces) (Bureau of Land Management 2012). Exotic wildlife and domestic animals can threaten multiple species of native flora and fauna through direct predation, competition for resources, the introduction of disease, and eutrophication of water sources. Examples of exotic wildlife species observed within the study area include brown-headed cowbirds, black rats (*Rattus rattus*), bullfrogs (*Rana catesbeiana*), and Argentine ants (*Linepithema humile*).

### ***Altered Fire Regime***

Southern California plant and wildlife species have evolved strategies to cope with fire, and some even require fire to complete part of their life cycle (Keeley et al. 2008). However, with the increase of human activities, fire frequency has increased in some areas within the Park. This has altered the plant community structure at the Park through species loss and type conversion. The secondary effects of frequent fire are increased erosion, increased sediment load, alteration of hydrology, habitat conversion, and invasion of exotic plant species.

### ***Altered Hydrology***

Hydrology plays a major role in the formation and/or sustainability of many habitats. When a watershed is significantly altered, peak flow rates and flow duration can change the overall character of the stream

bed and the associated vegetation community (Poff et al. 1997). Increased hydrological flows due to very high rainfall (2005) after the Cedar fire (2003) have been implicated in the destruction of habitat for a population of willow monardella within the West Sycamore area (B. Miller. pers. comm. 2011).

### ***Habitat Fragmentation***

Habitat fragmentation limits habitat areas, isolates populations, reduces dispersal and gene flow, and degrades habitat quality through edge effects. When species are isolated by physical barriers such as roads, trails, urban areas, and utility rights-of-way, the ability of meta-populations to interbreed or cross-pollinate is reduced, leading to lower genetic variability which puts them at risk of localized extinction.

Regional habitat fragmentation at the Park is managed by the maintenance of linkages to adjacent biological core areas. Preserve-level fragmentation (caused by roadways, facilities, trails, and utility right-of-ways) at the Park is managed by minimization of local fragmentation stressors (i.e., the reduction of trail redundancies and rerouting of existing trails away from habitats which are sensitive to local fragmentation and associated edge effects).

## **c. Region-wide Threats**

Region-wide threats are those that occur at large spatial scales and, though they may be identified as significant contributors to overall species population decline, are outside of the geographic and jurisdictional scope of Park managers. Management of regionwide threats requires region-wide actions, and thus are not a significant portion of the management actions contained within the NRMP. Region-wide threats to sensitive species and vegetation communities within the study area include habitat loss, urban runoff, drought, utility and service lines, and pests and disease.

### **5.5.2.7 Management Prioritization**

A prioritization system for management actions was developed for species and habitats at the Park using survey data, information gleaned from a thorough literature review, and the combined knowledge of City biologists and rangers, members of the Institute of Ecological Monitoring and Management at San Diego State University, and RECON biologists. The sensitive species and management guilds within the study area were prioritized based on regional threat level (spatial and temporal), preserve threat level, and the ability to effectively manage threats at the Park.

Using these criteria, the priority sensitive species identified by the NRMP include:

- San Diego thornmint
- San Diego ambrosia
- Variegated dudleya
- Willowy monardella
- Coastal cactus wren

In order to more efficiently manage natural resources at the Park, sensitive habitats have been grouped into geographic areas based on threat type similarities. Each of these “management guilds” were used in the NRMP to coordinate threat treatment across several sensitive species and vegetation types. Priority management guilds identified by the NRMP include:

- Tierrasanta clay ridges
- East Elliott clay ridgelines
- Riparian woodlands
- Cliffs and rock outcrops
- *Artemisia*-dominated coastal sage scrub

For both the priority species and management guilds, the NRMP fully details the background, MSCP conditions of coverage, presence in the Park, anthropogenic threats, management goals and objectives, monitoring, and minimization of impacts due to management and monitoring activities.

### 5.5.3 Significance Determination Thresholds

Based on the City’s 2016 Significance Determination Thresholds, that have been adapted to guide a programmatic analysis for implementation of the Plans and associated discretionary actions, impacts related to biological resources would be significant if implementation of the Plans and associated discretionary actions would:

1. Result in a reduction in the number of any unique, rare, endangered, sensitive, or fully protected species of plants or animals;
2. Result in interference with the nesting/foraging/movement of any resident or migratory fish or wildlife species;
3. Result in an impact to a sensitive habitat, including, but not limited to streamside vegetation, oak woodland, vernal pools, wetlands, coastal sage scrub, or chaparral;
4. Result in the introduction of invasive species of plants into the area; or
5. Result in an impact on City, state, or federally regulated wetlands (including, but not limited to, salt marsh, vernal pool, lagoon, riparian habitat, etc.) through direct removal, filling, hydrological interruption, or other means.

#### 5.5.3.1 Criteria for Evaluating Biological Resources

Potential impacts to biological resources are evaluated through review of the project’s consistency with the City’s LDC ESL Regulations and Biology Guidelines (2012) as well as the MSCP Subarea Plan (1997). Before a determination of the significance of an impact can be made, the presence and nature of the biological resources would be established.

The criteria for evaluating a project's impact on biological resources resulting from implementation of the Plans and associated discretionary actions would depend on whether:

- The site has been identified as part of the MHPA by the Subarea Plan.
- The site supports or could support Tier I, II, IIIA and B vegetation communities (such as grassland, chaparral, coastal sage scrub).
- The site contains, or comes within 100 feet of, a natural or man-made drainage (determine whether it is vegetated with wetland vegetation). The site lies within the 100-year floodplain established by the Federal Emergency Management Agency and the Floodplain Fringe/Floodway zones.
- The site does not support a vegetation community covered under the MSCP; however, important wildlife species may use the site for a corridor, etc.

### 5.5.3.2 Biological Impacts

Once it has been established that biological resources are present on a project site, further analysis of a project's direct and/or indirect impact to biological resources would be required and a determination of significance made with respect to the resource being impacted.

Direct effects include, but are not limited to, the following impacts:

#### a. Direct Impacts

- Any encroachment in the MHPA is considered a significant impact to the preservation goals of the MSCP. Any encroachment into the MHPA (in excess of the allowable encroachment by a project) would require a MHPA boundary adjustment which would include a habitat equivalency assessment and concurrence by the Wildlife Agencies to ensure that lands added to the MHPA would be at least equivalent to what would be removed.
- Lands containing Tier I, II, IIIA, and IIIB habitats and all wetlands are considered sensitive and declining habitats. Impacts to these resources may be considered significant.
- Impacts to individual sensitive species, outside of any impacts to habitat, may also be considered significant based upon the rarity and extent of impacts. Impacts to state or federally listed species and all narrow endemics should be considered significant.
- Certain species covered by the MSCP and other species not covered by the MSCP may be considered significant on a case-by-case basis taking into consideration all pertinent information regarding distribution, rarity, and the level of habitat conservation afforded by the MSCP.

#### b. Indirect Impacts

Indirect effects include, but are not limited to the introduction of urban meso-predators, domestic animals, urban runoff, or invasive exotic plant species into a biological system; noise and lighting impacts, alteration of a dynamic portion of a system, such as stream flow characteristics or fire cycles; or loss of a wetland buffer that includes no environmentally sensitive lands.

## 5.5.4 Impact Analysis

### Issue 1: Sensitive Plant and Wildlife Species

*Would implementation of the Plans and associated discretionary actions result in a reduction in the number of any unique, rare, endangered, sensitive, or fully protected species of plants or animals?*

As discussed in Chapter 3, Project Description, the Plans do not propose specific development at this time. The Plans have been developed as an integrated set of management guidelines for the Park, with the MPU focusing on public access and recreation and the NRMP focusing on sensitive biological resources.

The NRMP provides management goals and objectives in order to protect sensitive plant and wildlife species. For example, one goal is to establish and sustain a persistent population of coastal cactus wren within the West Sycamore area (Figure 5.5-5). In order to accomplish this goal, the specific management objectives are to:

Objective 1: Reduce combustible fuels within the Cactus Wren Management Area

Objective 2: Enhance and expand cacti distribution and density within the Cactus Wren Management Area

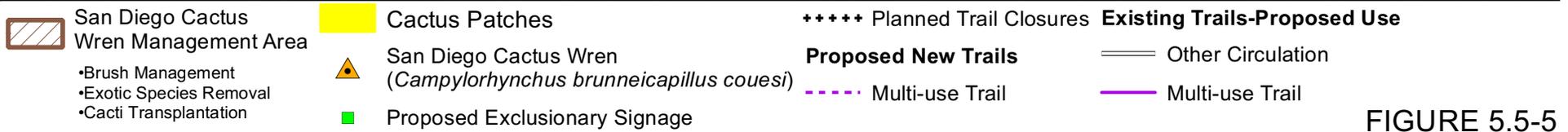
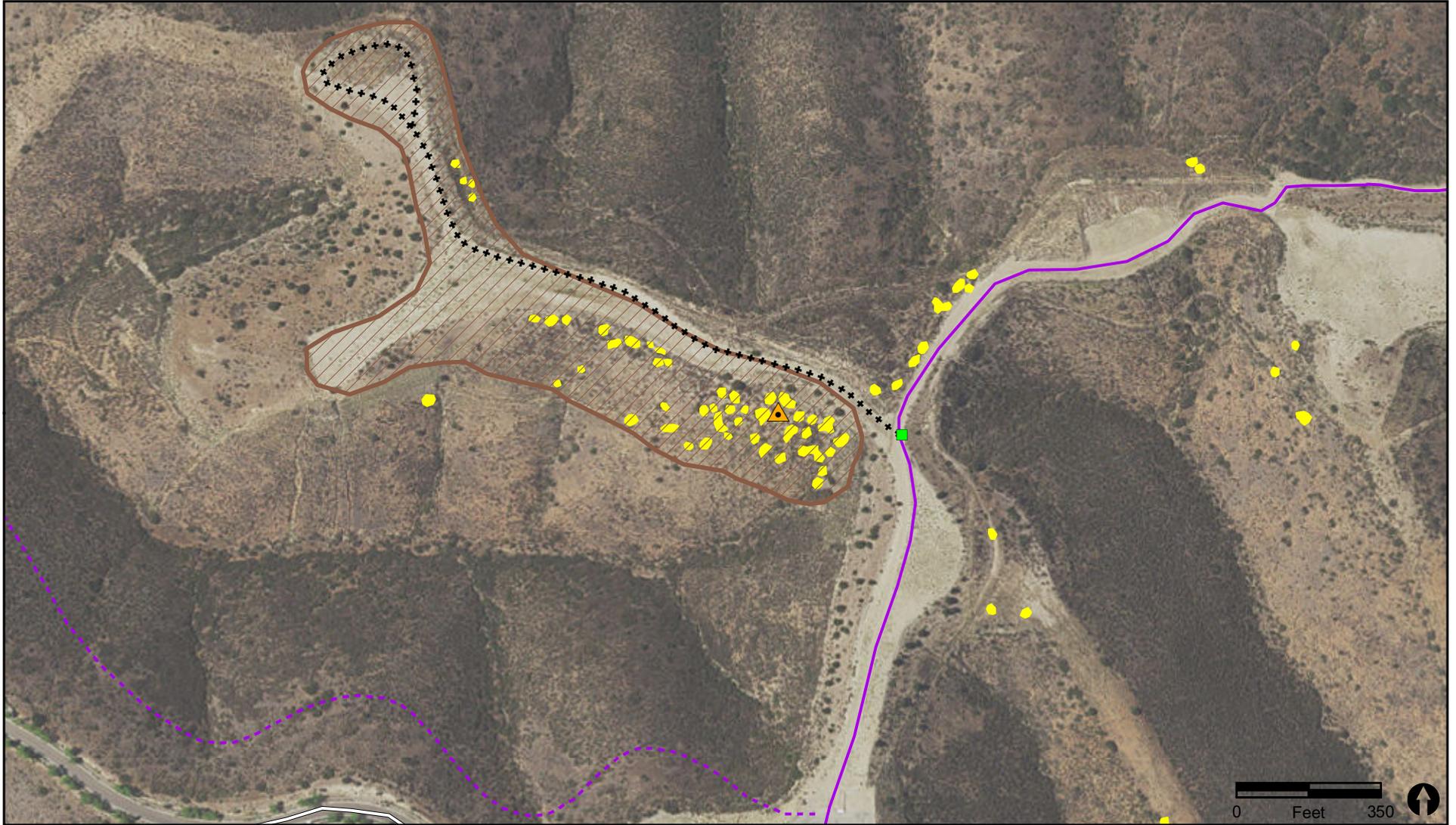
Objective 3: Trail reroute (to avoid the Cactus Wren Management Area)

The NRMP then sets forth specific monitoring and survey requirements in order to document management results. For the coastal cactus wren, this includes:

- Conduct presence/absence coastal cactus wren surveys annually
- Establish photo points within and facing vegetation management areas
- Use the relevé method to quantitatively sample and monitor vegetation within Cactus Wren Management Area

This is merely one example of the priority sensitive species identified by the NRMP; it also sets forth such specific actions for four other sensitive plant species, as well as five other management guilds that support sensitive plant and wildlife species (i.e., riparian woodlands support least Bell's vireo and southwestern willow flycatcher).

Various MPU recommendations detail trail closures and reroutes based on findings in the NRMP in order to avoid impacting sensitive habitat that supports such species. For example, MPU Recommendation MG-R11 for the Mission Gorge area states: "Close and restore the western Kwaay Paay access trail from the Old Mission Dam staging area to avoid direct conflicts with the protection of San Diego ambrosia."



**FIGURE 5.5-5**  
San Diego Cactus Wren  
Management Actions: West Sycamore

The MPU also specifies other actions in order to protect sensitive species. For example, MPU Recommendation FM-H2 states: "Install and maintain 'Sensitive Habitat Keep Out' signage along the trails nearest the Southwest Boundary Quarry and the Visitor Center Loop Quarry to protect the significant bat roosts that exist in these locations and issue warnings or citations to all violators."

The MPU recommendations also contemplate subsequent projects such as new trails, recreational amenities, and associated facilities. These types of subsequent projects have the potential to result in impacts to sensitive plant and wildlife species. For example, Recommendation CM-F1 states: "Plan, design and implement an off-street gravel or decomposed granite surfaced parking area with street improvements that comply with public road standards as applicable, at the Barker Way entrance to reduce some of the parking demand on the local residential streets and provide more a formal trailhead and potential for a maintainable comfort station. Ensure that temporary construction impacts associated with parking area improvements do not affect adjacent neighbors and park users."

Diegan coastal sage scrub, a sensitive vegetation community that sensitive plant and wildlife species often utilize, is conceptually mapped adjacent to this area. Types of sensitive plant species that could be found within this habitat include San Diego barrel cactus, San Diego golden star, or variegated dudleya. Sensitive wildlife species found within this habitat could include coastal California gnatcatcher, southern California rufous-crowned sparrow, or Belding's orange-throated whiptail. All of these species are covered under the City's MSCP Subarea Plan and if present in a subsequent project, impacts would be potentially significant and require mitigation.

Due to the fact that portions of the biological resource assessment are based on secondary source information rather than site-specific field surveys, the impacts would be refined for subsequent projects as they are proposed, such as the parking area example above. Site-specific surveys would be conducted for future project-level review to verify the presence of sensitive plant or wildlife species occurring within the study area and to determine the extent of any potential impacts.

### **a. Direct Impacts to Sensitive Plants**

The management actions identified in the NRMP would not result in direct impacts to sensitive plant species. The NRMP intends to actively manage and protect sensitive plant species. Although some management actions involve revegetation or transplantation activities that may potentially result in accidental disturbance, minimization measures specified within the NRMP would be adhered to prior to implementation. The MPU is analyzed below.

Subsequent projects contemplated within the MPU have the potential to impact 23 sensitive plant species known to occur within the study area (see Table 5.5-6). Seven of the plant species are federally, state, or City of San Diego listed species:

- San Diego thornmint
- San Diego ambrosia
- Variegated dudleya
- Willowy monardella
- San Diego goldenstar
- Orcutt's brodiaea
- San Diego barrel cactus

Precise locations of sensitive plant species would be identified through site-specific biological surveys in conjunction with future development. It should be noted that specific management actions were developed within the NRMP in order to proactively protect several of these species.

Potential impacts to sensitive plants species due to subsequent projects implemented in accordance with the MPU would be significant (**Impact BIO-1**); therefore, mitigation would be required.

## **b. Direct Impacts to Sensitive Wildlife**

The management actions identified in the NRMP would not result in direct impacts to sensitive wildlife species. The NRMP intends to actively manage and protect sensitive wildlife species. The MPU is analyzed below.

Implementation of the MPU recommendations has the potential to impact sensitive wildlife species known to occur within the study area. Precise locations of sensitive wildlife species and suitable habitat would be identified through on-site reconnaissance in conjunction with future development. Impacts to the any of the species discussed below would be significant (**Impact BIO-2**).

### ***Federally Listed Endangered Species***

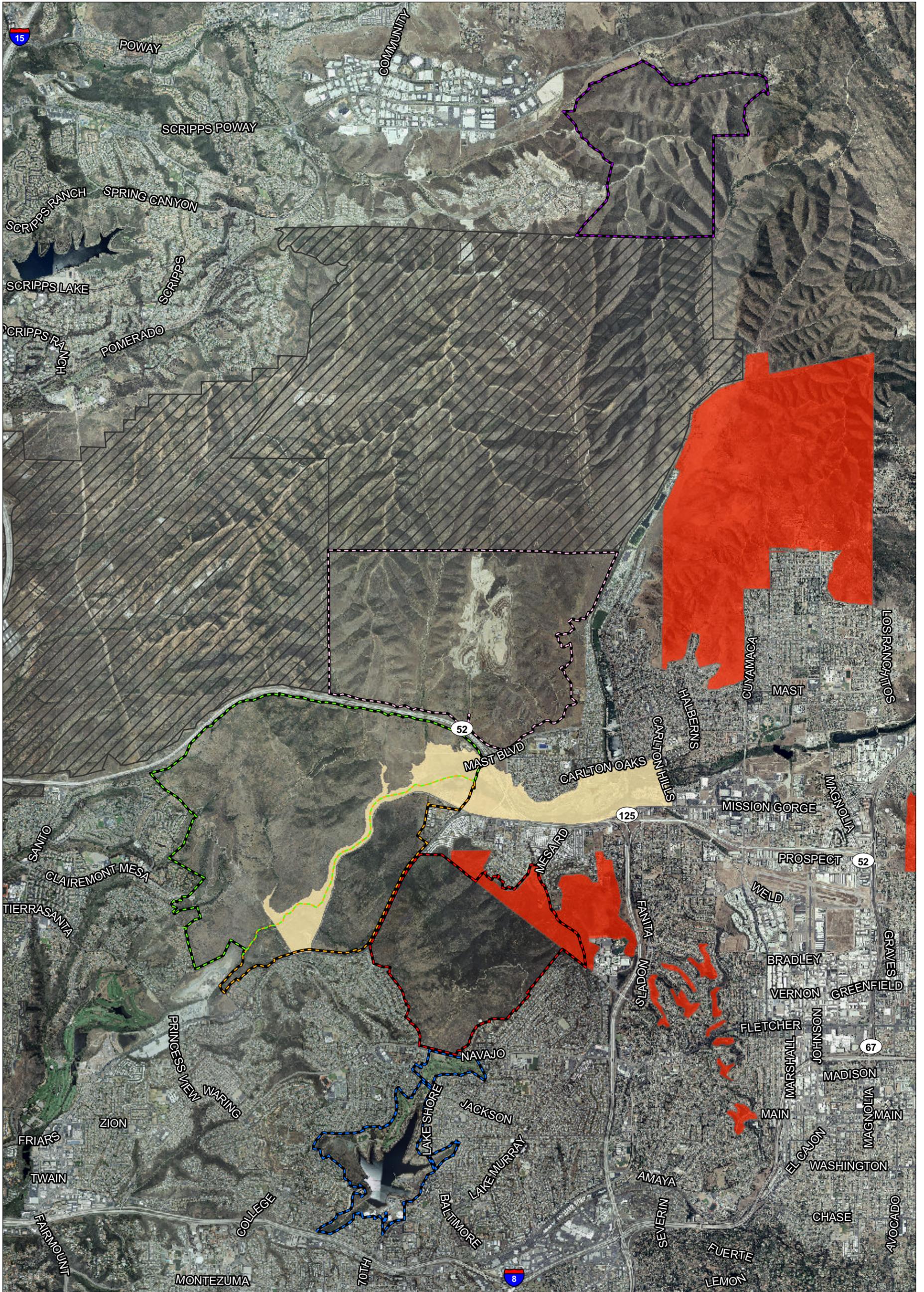
The federally endangered San Diego fairy shrimp, Quino checkerspot butterfly, light-footed clapper rail, least Bell's vireo, and southwestern willow flycatcher could be impacted by subsequent projects implemented in accordance with the MPU. Of these species, designated critical habitat for least Bell's vireo occurs within the study area (Figure 5.5-6).

The City relinquished federal coverage of the San Diego fairy shrimp in the MSCP, but has retained state coverage through the MSCP. The Quino checkerspot butterfly is also a federally listed endangered species and a non-covered species in the MSCP. Impacts to San Diego fairy shrimp and Quino checkerspot butterfly species must be approved by USFWS under Section 7 or 10 of the Federal Endangered Species Act (FESA).

Impacts to light-footed clapper rail, least Bell's vireo, and southwestern willow flycatcher must comply with the provisions of the MSCP. The MSCP sets forth provisions in order for projects to comply with the FESA for covered species. These provisions would be required for subsequent projects to avoid impacts to the light-footed clapper rail, least Bell's vireo, and southwestern willow flycatcher.

### ***Federally Listed Threatened Species***

The coastal California gnatcatcher, a federally listed threatened species, CDFW listed species of special concern, and MSCP covered species, occurs within the study area. There is also designated critical habitat for this species within the study area (see Figure 5.5-6). The MSCP sets forth provisions in order for projects to comply with the FESA for this species. These provisions would be required for subsequent projects to avoid impacts to coastal California gnatcatcher.



- |                    |                       |                                    |
|--------------------|-----------------------|------------------------------------|
| Project Boundary   | Cowles Mountain Area  | Least Bell's Vireo FCH             |
| MCAS Miramar       | Fortuna Mountain Area | Coastal California Gnatcatcher FCH |
| East Elliott Area  | Lake Murray Area      |                                    |
| West Sycamore Area | Mission Gorge Area    |                                    |



**FIGURE 5.5-6**  
Critical Habitat for Federally Endangered and Threatened Species within Study Area

### ***State Listed Endangered Species***

Light-footed clapper rail, least Bell's vireo, and southwestern willow flycatcher are also state listed endangered species. In addition, peregrine falcon is a state listed endangered species that has the potential to nest in the study area. As such, impacts to these species must comply with regulations regarding take of a listed species.

### ***CDFW Species of Special Concern***

Raptors—including Cooper's hawk, golden eagle, northern harrier, and peregrine falcon—are known to forage and/or nest in suitable habitats within the study area. Cooper's hawk and golden eagle are MSCP covered as year-round residents in San Diego. The northern harrier and peregrine falcon are MSCP covered migrants and winter residents in San Diego. To be in compliance with the Migratory Bird Treaty Act (MBTA) and Section 3503 of the California Fish and Game Code, no active nests of migratory bird species may be impacted during project construction.

Coastal cactus wren, southern California rufous-crowned sparrow, San Diego horned lizard, southern Pacific pond turtle, and Belding's orange-throated whiptail are CDFW species of special concern and MSCP covered species. Any impacts to their habitat types could potentially impact these species.

Other species within the study area are CDFW species of special concern but are not covered by the MSCP. These include western spadefoot toad, Coronado skink, coast patch-nosed snake, two-striped garter snake, northern red diamond rattlesnake, yellow warbler, California horned lark, yellow-breasted chat, double-crested cormorant, pocketed free-tailed bat, big free-tailed bat, Dulzura California pocket mouse, northwestern San Diego pocket mouse, western mastiff bat, western red bat, and San Diego black-tailed jackrabbit. Any impacts to their habitat types could potentially impact these species.

### ***Other MSCP Covered Species***

Other species that are considered sensitive include western bluebird, southern mule deer, and mountain lion. As these species are protected under the MSCP, impacts to these species and their habitats should be avoided.

Overall, subsequent projects implemented in accordance with the MPU have the potential to significantly impact sensitive wildlife species directly through the loss of habitat resulting from implementation of the MPU (trail construction, park amenities, parking areas, etc.). Impacts to those wildlife species listed in Table 5.5-7 but not discussed above would be adverse, though not significant, due to their lower sensitivity ratings and the fact that suitable habitat would be preserved in the MHPA to compensate for loss of sensitive habitat.

### **c. Indirect Impacts to Sensitive Wildlife Species**

As previously detailed, the NRMP incorporates management actions in order to protect sensitive species and habitats from anthropogenic threats and indirect impacts. The NRMP would therefore not result in indirect impacts to wildlife species.

The MHPA has been designed to maximize conservation of sensitive biological resources, including sensitive species. If subsequent projects contemplated by the MPU (such as trails or recreational amenities) are developed adjacent to the MHPA, there is a potential for secondary impacts that may degrade the habitat value or disrupt animals within the preserve area. These secondary effects may include habitat isolation, drainage or water quality impacts, noise, exotic plant species, nuisance animal species, and human intrusion. These impacts would be short-term, resulting from construction activities, or long-term, resulting from recreational users. Short-term construction impacts could result in disruption of nesting and breeding and would thus affect the population of sensitive species.

Therefore, subsequent projects identified by the MPU would have the potential to result in indirect impacts to sensitive species. Indirect impacts would be significant (**Impact BIO-3**).

In summary, potential impacts to the following MSCP covered plant species would be significant (**Impact BIO-1**)

- Willowy monardella
- San Diego goldenstar
- Orcutt's brodiaea
- Variegated dudleya
- San Diego barrel cactus
- San Diego thornmint
- San Diego ambrosia

Potential impacts to other sensitive plants with a CNPS Rare Plant ranking listed in Table 5.5-6 may also be significant, depending on the type of project and number of individuals impacted. Potential direct and indirect impacts to the following sensitive wildlife species would also be significant (**Impacts BIO-2 and BIO-3**):

- San Diego fairy shrimp
- Quino checkerspot butterfly
- Belding's orange-throated whiptail
- Southern Pacific pond turtle
- San Diego horned lizard
- Coastal California gnatcatcher
- Coastal cactus wren
- Cooper's hawk (nesting)
- Golden eagle (nesting and wintering)
- Least Bell's vireo
- Light-footed clapper rail
- Northern harrier (nesting)
- Peregrine falcon (nesting)
- Southern California rufous-crowned sparrow
- Southwestern willow flycatcher
- Western bluebird
- Southern mule deer
- Mountain lion

## Issue 2: Migratory Wildlife

*Would implementation of the Plans and associated discretionary actions result in interference with the nesting/foraging/movement of any resident or migratory fish or wildlife species?*

The Park is a core biological resource area and regional wildlife corridor. Maintaining connectivity amongst core MSCP areas is a high priority of the subarea plan. The Park's areas are separated by man-made and topographic boundaries, and as a result, have varying levels of urban edge and connectivity. The NRMP specifies management actions in order to increase connectivity within the Park, which would in turn increase regional connectivity.

For example, the wildlife tunnel is a wildlife undercrossing approximately 1.8 miles north of the Tierrasanta trailhead. This tunnel crosses under SR-52 and connects the Fortuna Mountain area with lands managed by MCAS Miramar. MCAS Miramar has installed a set of bars at the northern end of the tunnel to restrict recreational encroachment onto their property. Despite the barriers and exclusion signage, WTI observed that vandals have broken the barrier and frequently use the tunnel (day and nighttime) to illegally access trails on MCAS Miramar. Evidence collected during the study suggested that the mule deer will cross SR-52 at grade when fencing in this area is compromised (WTI 2010). Smaller mammals such as coyote (*Canis latrans*) and bobcats (*Lynx rufus*), however, continued to use the crossing. The combination of a partially functional gate and frequent recreational use appear to be limiting the use of the wildlife tunnel as a wildlife crossing by large mammals such as mule deer and mountain lion. Therefore, the NRMP recommends that City staff coordinate with MCAS Miramar to develop a plan to remove bars from the wildlife tunnel and address recreational encroachment onto federal lands.

Other NRMP management actions would improve connectivity within the Park. Multiple trail alignments would be rerouted to avoid sensitive habitat, and exclusionary fencing would be installed. A wildlife assessment of the Oak Canyon area determined that a mule deer and other species move across hillsides along transition zones where the combination of vegetation and topographic features (habitat types) change. These transition zones serve as busy wildlife movement areas due to the quick escape potential on one side and access to feeding areas on the other. Consequently, trail alignments have been rerouted in order to avoid these sensitive wildlife corridors (Wildlife Tracking Company 2016). Some areas of the Park, such as riparian habitat along the San Diego River, may require temporary or seasonal closure of recreational uses due to conflicts with resource management objectives. These are merely some examples of the numerous recommendations and actions identified within the NRMP that aim to improve wildlife movement corridors and regional connectivity within the Park. Therefore, potential NRMP impacts associated with wildlife movement corridors would be less than significant.

Even with the implementation of the aforementioned actions, impacts to wildlife nesting, foraging, and movement have potential to occur during subsequent projects implemented in accordance with the MPU, as described below. The program-level analysis identifies areas of potential impacts. Site-specific analysis would be conducted for subsequent projects implemented in accordance with the MPU to determine the extent of impacts to wildlife nesting, foraging, and movement.

For example, MPU Recommendation LM-H2 for the Lake Murray area states to "Remove dead or diseased eucalyptus trees and eucalyptus trees with calipers less than 4-inches at 4-feet above ground

and replace with native tree species per MSCP directive.” Although this would have the potential to increase habitat availability for sensitive plants and wildlife, the removal of non-native vegetation (eucalyptus trees) could result in loss of raptor nesting habitat.

Other subsequent projects under the MPU, such as trails and recreational amenities, may require grading, removal of vegetated habitat, or conversion of open areas to developed uses. In the Cowles Mountain area, for example, a new trail connection from Pyles Peak to Big Rock is envisioned in order to create a large loop on the east side of Pyles Peak and north side of Cowles Mountain. A subsequent project of this nature has the potential to interfere with wildlife nesting, foraging, or movement. Therefore, impacts would be significant (**Impact BIO-4**).

### Issue 3: Sensitive Habitat

*Would implementation of the Plans and associated discretionary actions result in an impact to a sensitive habitat, including, but not limited to streamside vegetation, oak woodland, vernal pools, wetlands, coastal sage scrub, or chaparral?*

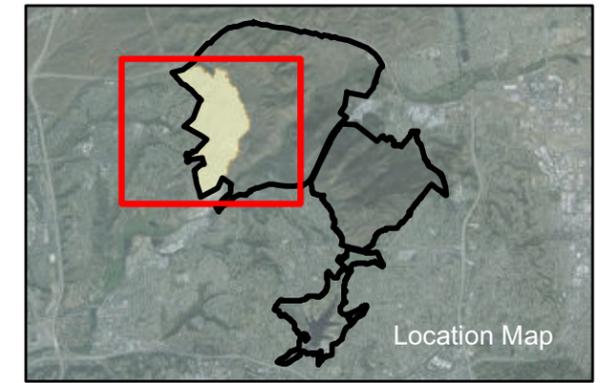
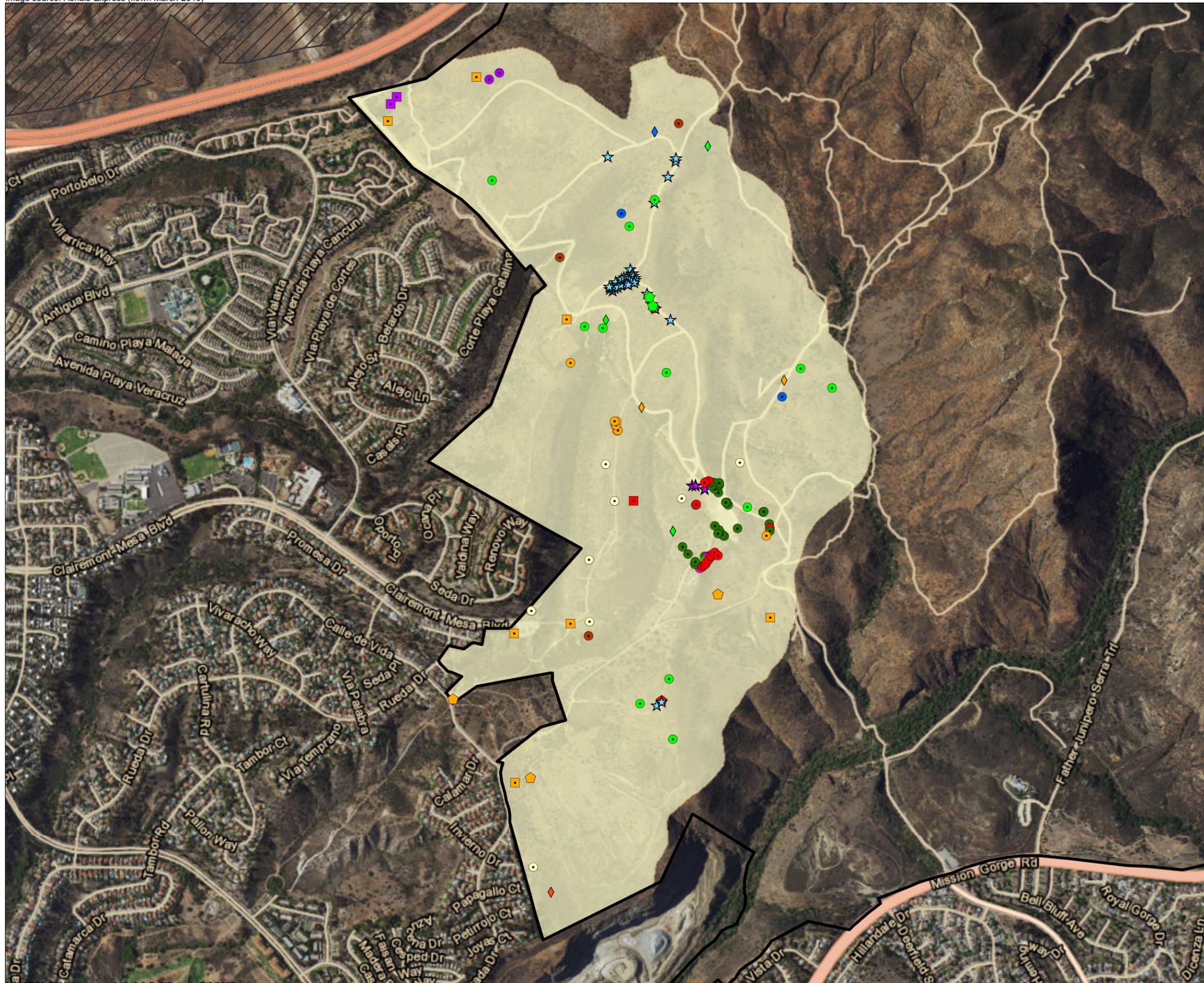
As previously detailed, in order to more efficiently manage natural resources within the Park, the NRMP grouped sensitive habitats into geographic areas based on threat type similarities. Each of those management guilds would be used to coordinate threat treatment across several sensitive species and vegetation types.

For example, the Tierrasanta Clay Ridge management guild is within the eastern portion of the Fortuna Mountain area. It contains a broad, dissected clay ridgeline which is vegetated with a matrix of coastal sage scrub, chaparral, and non-native grassland vegetation and hosts numerous sensitive species (Figure 5.5-7). By identifying these species and the threats to the guild as a whole, the NRMP then specified a goal to “maintain habitat quality, spacial extent, and species richness of native species within guild boundary.” The objectives to accomplish this goal are:

- Objective 1: Survey Biological Crusts
- Objective 2: Trail Closure/Reroute
- Objective 3: Implement VPHCP Recommendations

As shown on Figure 5.5-8, the NRMP sets forth management actions for threatened management guilds, which in turn aim to improve sensitive habitats within the Park. The MPU also took into account these actions in the development of conceptual trail reroutes and closures, as one example.

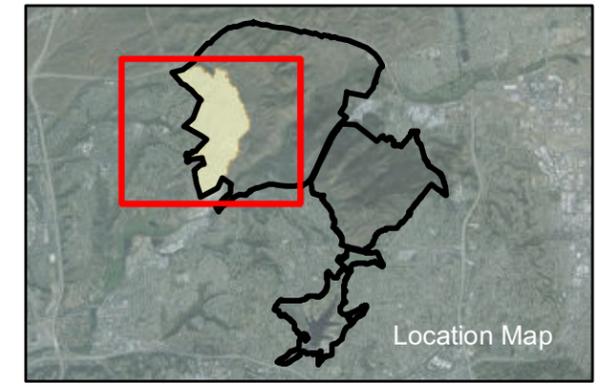
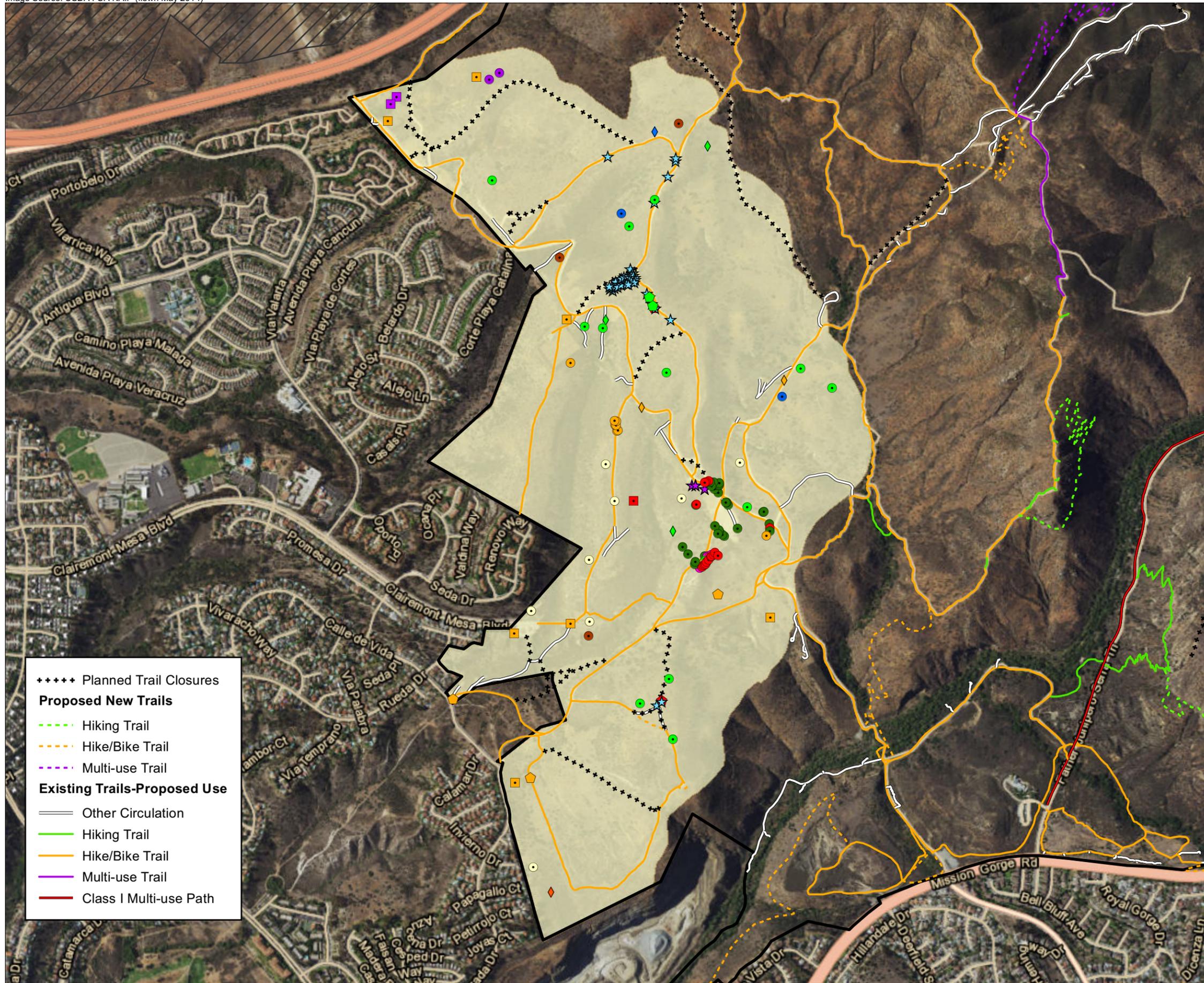
As previously detailed, the MPU also identifies subsequent projects—such as trails, recreational amenities, and facilities—that would have the potential to result in temporary and permanent impacts to sensitive vegetation communities as identified by the MSCP. These habitats include native grassland, valley needlegrass grassland, wildflower field, Diegan coastal sage scrub, chamise chaparral, southern mixed chaparral, scrub oak chaparral, and non-native grassland. The location of existing and proposed trails in relation to the vegetation communities within the Park is shown on Figures 5.5-2a through 5.5-2e. Impacts would be significant (**Impact BIO-5**).



- Project Boundary
  - MCAS Miramar
  - Tierrasanta Clay Guild
- Sensitive Species**
- Ashy Spike-moss
  - Decumbent Goldenbush
  - Palmer's Grappling Hook
  - San Diego Barrel Cactus
  - San Diego County Viguiera
  - San Diego Goldenstar
  - San Diego Thornmint
  - Summer Holly
  - Western Dichondra
  - Woven-spored Lichen
  - Variegated Dudleya
  - San Diego Desert Woodrat
  - Mule Deer
  - Black-tailed Jackrabbit
  - San Diego Pocket Mouse
  - Coastal California Gnatcatcher
  - Least Bell's Vireo
  - Southern California Rufus-crowned Sparrow
  - Western Spadefoot Toad
  - Belding's Orange-throated Whiptail
  - San Diego Fairy Shrimp
  - Vernal Pool
  - Quino Checkerspot Butterfly



**FIGURE 5.5-7**  
Tierrasanta Clay Guild  
within Study Area



- Project Boundary
  - MCAS Miramar
  - Tierrasanta Clay Guild
- Sensitive Species**
- Ashy Spike-moss
  - Decumbent Goldenbush
  - Palmer's Grappling Hook
  - San Diego Barrel Cactus
  - San Diego County Viguiera
  - San Diego Goldenstar
  - San Diego Thornmint
  - Summer Holly
  - Western Dichondra
  - Woven-spored Lichen
  - Variegated Dudleya
  - San Diego Desert Woodrat
  - Mule Deer
  - Black-tailed Jackrabbit
  - San Diego Pocket Mouse
  - Coastal California Gnatcatcher
  - Least Bell's Vireo
  - Southern California Rufus-crowned Sparrow
  - Western Spadefoot Toad
  - Belding's Orange-throated Whiptail
  - San Diego Fairy Shrimp
  - Vernal Pool
  - Quino Checkerspot Butterfly

- Planned Trail Closures
- Proposed New Trails**
- Hiking Trail
  - Hike/Bike Trail
  - Multi-use Trail
- Existing Trails-Proposed Use**
- Other Circulation
  - Hiking Trail
  - Hike/Bike Trail
  - Multi-use Trail
  - Class I Multi-use Path



FIGURE 5.5-8

Management Actions for Tierrasanta Clay Guild

## Issue 4: Invasive Plants

*Would implementation of the Plans and associated discretionary actions result in the introduction of invasive species of plants into the area?*

The NRMP includes management actions in order to control invasive species that currently pose a threat to ecological guilds within the Park. Invasive species are aggressive non-native plant species that threaten natural habitats by outcompeting native species and reducing biodiversity. For example, exotic perennial weed species pose a major threat to the *Artemisia*-dominated coastal sage scrub guild at the Park. A large population (5 acres of coverage) of artichoke thistle (*Cynara cardunculus*) was observed in the West Sycamore area during vegetation surveys. Artichoke thistle, also called cardoon, is a perennial herb that may grow up to 6 feet high and 6 feet wide with a cluster of large, purple flower heads. The NRMP identifies objectives to remove this invasive species, including the development of a restoration plan, which would specify herbicide treatments, a schedule, and success criteria. The NRMP would not result in the introduction of invasive species; impacts would be less than significant.

Subsequent projects, such as trails and recreational amenities, implemented in accordance with the MPU would adhere to MSCP Subarea Plan and City regulations, both of which contain policies for control of invasive plant species. These plants thrive in areas disturbed by activities such as grading, construction, trail usage, and fire. Therefore, subsequent projects implemented in accordance with the MPU would have the potential to introduce non-native plant species. These impacts would be significant (**Impact BIO-6**).

## Issue 5: Wetlands

*Would implementation of the Plans and associated discretionary actions result in an impact on City, state, or federally regulated wetlands (including, but not limited to, salt marsh, vernal pool, lagoon, riparian habitat, etc.) through direct removal, filling, hydrological interruption, or other means?*

As previously detailed, the NRMP identifies management actions for ecological guilds. These guilds contain sensitive riparian habitat, including vernal pools and wetlands. For example, the riparian woodlands ecological guild is primarily located within the floodplain of the San Diego River within the Mission Gorge area. The NRMP details management actions to minimize threats, such as continued trapping of brown-headed cowbirds and removal of giant reed. The NRMP would not result in an impact on wetlands or riparian habitats. If restoration or transplantation activities occur near such habitats, minimization measures in the NRMP would be required to be adhered to prior to the beginning of such activities. Impacts would be less than significant.

Riparian habitats in the study area consist of southern willow scrub, southern riparian scrub, open water, coastal and freshwater marsh, mule fat scrub, and San Diego mesa vernal pool. The City's Biology Guidelines, ESL Regulations, and MSCP Subarea Plan requires that impacts to wetlands, which include vernal pools and vernal pool species, shall be avoided and that a sufficient buffer shall be maintained around all wetlands to protect wetland functions and values.

In the case of vernal pools, avoidance includes maintaining a sufficient amount of the pool's watershed area necessary for its continued viability and providing a buffer around the vernal pool to protect

wetland functions and values. Buffer distances are typically 100 feet, but in some cases, a lesser buffer may be approved provided it can be demonstrated that the functions and values of the wetland are not compromised.

Subsequent projects implemented in accordance with the MPU, such as trails, may result in impacts to wetlands and thus require a deviation from the ESL Regulations. Wetland impacts may be considered under the following three options: the Essential Public Projects, Economic Viability Option, or Biologically Superior Option. Under the wetland deviation process for the Essential Public Projects and Economic Viability Options, impacts must be avoided, but if not feasible, then impacts must be minimized to the maximum extent practicable. Under the wetland deviation process for the Biologically Superior Option, only wetland resources of low biological quality may be impacted and must result in a biologically superior outcome.

The assessment of low biological quality would be specific to the resource type impacted (e.g., vernal pools, riparian, and unvegetated channels), and would include consideration of the following factors: use of the wetland by federal and/or state endangered, threatened, sensitive, rare and/or other indigenous species, diversity of native flora and fauna enhancement or restoration potential, habitat function/ecological role, connectivity to other wetland or upland systems, hydrologic functions, status of watershed, and source and quality of water. In addition, impacts to vernal pools would require special assessments, as noted below.

### **a. Vernal Pools and Vernal Pool Species**

Vernal pools and basins with fairy shrimp occur within the study area. As mentioned previously, basins with fairy shrimp may be vernal pools or road ruts in which fairy shrimp occur. Project-specific analysis would be required for future projects and would determine what agencies (City, USFWS, RWQCB, USACE, or CDFW) have regulatory authority over basins with fairy shrimp.

Impacts to vernal pools would require a deviation from the City's ESL Regulations. The vernal pools which could be impacted would require the following assessments: presence of vernal pool flora and fauna, information on hydrology, determination of habitat function, and restoration potential. In addition, protocol fairy shrimp surveys would be required for all vernal pools to determine the presence or absence of these species. Impacts to fairy shrimp would require a Section 10(a)1(A) permit from the USFWS.

Although impacts to vernal pools and vernal pool species are not anticipated to occur, subsequent restoration efforts implemented in accordance with the MPU have the potential to impact covered species addressed in the Draft VPHCP. Impacts would be significant (**Impact BIO-7**).

### **b. Other Jurisdictional Wetlands**

Implementation of the MPU has the potential to result in impacts to both wetland and non-wetland streambed waters regulated by the USACE, CDFW, RWQCB, and City of San Diego. In addition, the USFWS would be involved under Section 7 of the FESA during consultation initiated by the USACE during the 404 permit process if federal listed species are present. There is also the potential for additional unmapped non-wetland waters of the U.S. and streambeds to occur within the study area.

Future projects implemented in accordance with the MPU have the potential to result in disturbances to habitat and drainages that are under the jurisdiction of the USACE according to Section 404 of the Clean Water Act (CWA), RWQCB in accordance with Section 401 of the CWA, and CDFW under Section 1600 of the Fish and Game Code. In addition, impacts to wetlands would require a deviation from the City's ESL Regulations. Wetland and jurisdictional impacts would be determined at the project level and would require subsequent environmental review.

In addition, a preliminary or final jurisdictional wetlands delineation of the future project site shall be completed following the methods outlined in the USACE's 1987 Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Delineation Manual *for the 2008 Arid West Region*. A determination of the presence/absence and boundaries of any waters of the U.S. and waters of the state shall also be completed following the appropriate USACE guidance documents for determining the Ordinary High Water Mark (OHWM) boundaries. The limits of any riparian habitats on the site under the sole jurisdiction of CDFW shall also be delineated, as well as any special aquatic sites (e.g., vernal pools) that may not be within the USACE jurisdiction under the CWA or meet other federal jurisdictional criteria but are regulated by the FESA, CESA, and/or RWQCB. The City does not have take authority for vernal pools containing sensitive species. A USFWS permit would be required if vernal pools were present with sensitive species.

Although the Plans include policies intended to avoid impacts to wetlands and in some cases to restore existing disturbed wetland habitats, it is possible that implementation of the Plans and associated discretionary actions could result in limited impacts to jurisdictional wetlands during activities such as wetland restoration and installation of trail/river crossing improvements. Potential impacts to jurisdictional wetlands would be significant (**Impact BIO-8**) and mitigation is required.

## 5.5.5 Significance of Impacts

### Issue 1: Sensitive Plant and Wildlife Species

Subsequent projects implemented in accordance with the MPU would have the potential to impact sensitive plants and wildlife species directly through the loss of habitat or indirectly by placing trails and recreational facilities adjacent to the MHPA. Potential impacts to the following MSCP covered plant species would be significant (**Impact BIO-1**):

- Willow monardella
- San Diego goldenstar
- Orcutt's brodiaea
- Variegated dudleya
- San Diego barrel cactus
- San Diego thornmint
- San Diego ambrosia

Potential direct and indirect impacts to the following sensitive wildlife species would also be significant (**Impacts BIO-2 and BIO-3**):

- San Diego fairy shrimp
- Quino checkerspot butterfly
- Belding's orange-throated whiptail
- Southern Pacific pond turtle
- San Diego horned lizard
- Coastal California gnatcatcher
- Coastal cactus wren
- Cooper's hawk (nesting)
- Golden eagle (nesting and wintering)
- Least Bell's vireo
- Light-footed clapper rail
- Northern harrier (nesting)
- Peregrine falcon (nesting)
- Southern California rufous-crowned sparrow
- Southwestern willow flycatcher
- Western bluebird
- Southern mule deer
- Mountain lion

## Issue 2: Migratory Wildlife

The NRMP includes numerous management actions specifically designed to improve wildlife movement corridors both within the Park and regionally. However, the MPU also envisions subsequent facility, recreation, and trail projects. These subsequent projects have the potential to result in habitat modifications, which in turn may interfere with wildlife nesting, foraging, or movement within riparian habitats and upland habitats. Impacts would be significant (**Impact BIO-4**).

## Issue 3: Sensitive Habitat

The NRMP identifies numerous management actions for ecological guilds within the Park, including cliffs and rocky outcrops, East Elliott clay ridgelines, Tierrasanta clay ridges, riparian woodlands, and *Artemisia*-dominated coastal sage scrub. These actions aim to improve the viability of these habitats. However, subsequent projects implemented in accordance with the MPU would have the potential to impact Tier I, II, IIIA, and IIIB habitats, pursuant to the MSCP. These impacts would be significant (**Impact BIO-5**).

## Issue 4: Invasive Plants

Invasive plants thrive in areas disturbed by activities such as grading, construction, trail usage, and fire. Therefore, as subsequent projects implemented in accordance with the MPU would involve trail construction, realignments, and closures, there would be the potential to introduce non-native plant species within sensitive habitats. These impacts would be significant (**Impact BIO-6**).

## Issue 5: Wetlands

Subsequent projects implemented in accordance with the Plans would have the potential to impact vernal pools and their species, as well as jurisdictional wetlands. Impacts would be significant (**Impacts BIO-7 and BIO-8**).

### 5.5.6 Mitigation Framework

All impacts to sensitive biological resources shall be avoided to the maximum extent feasible and minimized when avoidance is not possible. Where impacts are not avoidable or cannot be minimized, mitigation shall be required to reduce significant impacts to below a level of significance. Mitigation measures typically employed include resource avoidance, minimization, restoration, or creation of habitat, dedication, or acquisition of habitat, or payment into the City of San Diego's Habitat Acquisition Fund or other City-approved mitigation bank. Mitigation measures shall be determined and implemented at the project level. Adherence to the recommendations below, where applicable to a particular future action, would minimize impacts to sensitive biological resources.

Potential impacts resulting from introduction of invasive species into the MHPA (Impact BIO-6) would be reduced to less than significant through implementation of MM-LU-1 as detailed in Section 5.1, Land Use, of this Program Environmental Impact Report (PEIR). As detailed therein, all subsequent projects would be subject to California Environmental Quality Act (CEQA) review and compliance with the Plans, the City's Biology Guidelines, MSCP Subarea Plan, and the Landscape Standards in the Land Development Manual, including the prohibitions on the use of invasive plant species, such as paper mulberry (*Broussonetia papyrifera*) or pampas grass (*Cortaderia selloana*). The MHPA Land Use Adjacency Guidelines also require that no invasive, non-native plant species be introduced into areas adjacent to the MHPA, which covers most of the Park.

Implementation of mitigation measure MM-BIO-1 would reduce impacts to sensitive plants and wildlife species identified under Issue 1 (Impacts BIO-1 through BIO-3) and would reduce impacts to sensitive habitat (Impact BIO-5) to less than significant.

**MM-BIO-1:** To reduce potentially significant impacts that would cause a reduction in the number of unique, rare, endangered, sensitive, or fully protected species of plants or animals, if present within the study area, subsequent MPU projects that are proposed in undisturbed areas shall be analyzed in accordance with the CEQA Significance Thresholds, which require that site-specific biological resources surveys be conducted in accordance with City of San Diego Biology Guidelines (2012). The locations of any sensitive plant species, including listed, rare, and narrow endemic species, as well as the potential for occurrence of any listed or rare wildlife species shall be recorded and presented in a biological resources report. Based on available habitat within the study area, focused presence/absence surveys shall be conducted in accordance with the Biology Guidelines and applicable resource agency survey protocols to determine the potential for impacts resulting from the future projects on these species. Engineering design specifications based on project-level grading and site plans shall be incorporated into the design of future projects to minimize or eliminate direct impacts on sensitive plant and wildlife species consistent with the NRMP, FESA, MBTA, Bald and Golden Eagle

Protection Act, California Endangered Species Act (CESA), MSCP Subarea Plan, and ESL Regulations.

### **Mitigation for Impacts to Sensitive Upland Habitats**

Subsequent projects implemented in accordance with the MPU resulting in impacts to sensitive upland Tier I, II, IIIA, or IIIB habitats shall implement avoidance and minimization measures consistent with the City Biology Guidelines and MSCP Subarea Plan and provide suitable mitigation in accordance with the City's Biology Guidelines and MSCP Subarea Plan (Table 5.5-8). Future project-level grading and site plans shall incorporate project design features to minimize direct impacts on sensitive vegetation communities shown in Table 5.5-6, consistent with federal, state, and City guidelines. Any required mitigation for impacts on sensitive vegetation communities shall be outlined in a conceptual mitigation plan following the outline provided in the City's Biology Guidelines.

Mitigation for impacts to sensitive vegetation communities shall be implemented at the time future development projects are proposed. Project-level analysis shall determine whether the impacts are within or outside of the MHPA. Any MHPA boundary adjustments shall be processed by the individual project applicants through the City and Wildlife Agencies during the early project planning stage.

Mitigation for impacts to sensitive upland habitats shall occur in accordance with the MSCP mitigation ratios as specified within the City's Biology Guidelines (City of San Diego 2012). These mitigation ratios are based on tier level of the vegetation community, the location of the impact, and the location of the mitigation site(s). For example, impacts to lands inside of the MHPA and mitigated outside the MHPA would have the highest mitigation ratio whereas impacts to lands outside the MHPA and mitigated inside the MHPA would have the lowest mitigation ratio.

<b>Table 5.5-8 Mitigation Ratios for Impacts to Upland Vegetation Communities and Land Cover Types</b>			
Tier	Habitat Type	Mitigation Ratios	
TIER 1 (rare uplands)	Southern Foredunes Torrey Pines Forest Coastal Bluff Scrub Maritime Succulent Scrub Maritime Chaparral Scrub Oak Chaparral Native Grassland Oak Woodlands	<b>Location of Preservation</b>	
			<u>Inside</u> <u>Outside</u>
		<b>Location of Impact</b> Inside	2:1    3:1
		Outside	1:1    2:1
TIER (uncommon uplands)	II Coastal Sage Scrub (CSS) CSS/Chaparral	<b>Location of Preservation</b>	
			<u>Inside</u> <u>Outside</u>
		<b>Location of Impact</b> Inside*	1:1    2:1
		Outside	1:1    1.5:1
TIER IIIA (common uplands)	Chamise Chaparral Mixed Chaparral	<b>Location of Preservation</b>	
			<u>Inside</u> <u>Outside</u>
		<b>Location of Impact</b> Inside*	1:1    1.5:1
		Outside	0.5:1    1:1
TIER IIIB (common uplands)	Non-native Grassland	<b>Location of Preservation</b>	
			<u>Inside</u> <u>Outside</u>
		<b>Location of Impact</b> Inside*	1:1    1.5:1
		Outside	0.5:1    1:1
Tier IV (other uplands)	Disturbed Land Agriculture Eucalyptus Woodland Ornamental Plantings	<b>Location of Preservation</b>	
			<u>Inside</u> <u>Outside</u>
		<b>Location of Impact</b> Inside*	0:1    0:1
		Outside	0:1    0:1
NOTES:			
For all Tier I impacts, the mitigation could (1) occur within the MHPA portion of Tier I or (2) occur outside of the MHPA within the affected habitat type (in-kind).			
For impacts on Tier II, IIIA, and IIIB habitats, the mitigation could (1) occur within the MHPA portion of Tiers I – III (out-of-kind) or (2) occur outside of the MHPA within the affected habitat type (in-kind). Project-specific mitigation will be subject to applicable mitigation ratios at the time of project submittal.			

Mitigation for Short-term Impacts to Sensitive Species from Project Construction (Impact BIO-4) would be addressed through implementation of MM-LU-1 and MM-BIO-2.

**MM-BIO-2:** Mitigation for future projects to reduce potentially significant impacts that would interfere with the nesting, foraging, or movement of wildlife species within the study area, shall be identified in site-specific biological resources surveys prepared in accordance with City of San Diego Biology Guidelines as further detailed in MM-BIO-1 during the discretionary review process. The biology report shall include results of protocol surveys and recommendations for additional measures to be implemented during construction-related activities; shall identify the limits of any identified local-scale

wildlife corridors or habitat linkages and analyze potential impacts in relation to local fauna, and the effects of conversion of vegetation communities to minimize direct impacts on sensitive wildlife species and to provide for continued wildlife movement through the corridor.

Measures that shall be incorporated into project-level construction documents to minimize direct impacts on wildlife movement, nesting, or foraging activities shall be addressed in the biology report and shall include recommendations for preconstruction protocol surveys to be conducted during established breeding seasons, construction noise monitoring and implementation of any species-specific mitigation plans (such as a burrowing owl mitigation plan) in order to comply with the FESA, MBTA, Bald and Golden Eagle Protection Act, State Fish and Game Code, and/or the ESL Regulations.

Potentially significant impacts to wetlands/jurisdictional resources (Impacts BIO-7 and BIO-8) associated with future implementation of the Plans and associated discretionary actions shall be required to implement the Mitigation Framework (MM-BIO-3), as follows:

**MM-BIO-3:** To reduce potential direct impacts to City, state, and federally regulated wetlands, all subsequent projects developed in accordance with the MPU and NRMP shall be required to comply with CWA Section 404 requirements and special conditions, RWQCB in accordance with Section 401 of the CWA, CDFW Section 1602 Streambed Alteration Agreement requirements and special conditions, and the City of San Diego ESL Regulations for minimizing impacts to wetlands. Achieving consistency with these regulations for impacts on wetlands and special aquatic sites would reduce potential impacts to regulated wetlands and provide compensatory mitigation (as required) to ensure no net loss of wetland habitats.

Prior to obtaining discretionary permits for future actions implemented in accordance with the MPU and NRMP, a site-specific biological resources survey shall be completed in accordance with City of San Diego Biology Guidelines. Any required mitigation for impacts shall be outlined in a conceptual wetland mitigation plan prepared in accordance with the City's Biology Guidelines (2012). In addition, a preliminary or final jurisdictional wetlands delineation of the project site shall be completed following the methods outlined in the USACE's 1987 *Wetlands Delineation Manual* and the 2008 *Regional Supplement to the Corps of Engineers Delineation Manual for the Arid West Region*. A determination of the presence/absence and boundaries of any waters of the U.S. and waters of the state shall also be completed following the appropriate USACE guidance documents for determining the OHWM boundaries. The limits of any riparian habitats on-site under the sole jurisdiction of CDFW shall also be delineated, as well as any special aquatic sites (excluding vernal pools) that may not meet federal jurisdictional criteria but are regulated by the RWQCB. Engineering design specifications based on project-level grading and site plans shall be incorporated into the project design to minimize direct impacts to wetlands, jurisdictional waters, riparian habitats, vernal pools, etc. consistent with federal, state, and City guidelines.

Additionally, any impacts to wetlands in the City of San Diego would require a deviation from the ESL wetland regulations. Under the wetland deviation process, development

proposals that have wetland impacts shall be considered only pursuant to one of three options: Essential Public Projects, Economic Viability Option, or Biologically Superior Option. ESL Regulations require that impacts to wetlands be avoided. Unavoidable impacts to wetlands shall be minimized to the maximum extent practicable and mitigated as follows:

- As part of the project-specific environmental review pursuant to CEQA, all unavoidable wetland impacts shall be analyzed, and mitigation shall be required in accordance with ratios shown in the table below. Mitigation shall be based on the type of wetland impacted and the project design. Mitigation shall prevent any net loss of wetland functions and values of the impacted wetland.
- For the Biologically Superior Option, the project and proposed mitigation shall include avoidance, minimization, and compensatory measures, which would result in a biologically superior net gain in overall function and values of (a) the type of wetland resource being impacted and/or (b) the biological resources to be conserved; and the biologically superior mitigation shall include either: (1) standard mitigation per Table 5.5-9a, including wetland creation or restoration of the same type of wetland resource that is being impacted that results in high quality wetlands; and a biologically superior project design whose avoided area(s) are (i) in a configuration or alignment that optimizes the potential long-term biological viability of the on-site sensitive biological resources, and/or (ii) conserves the rarest and highest quality on-site biological resources; or (2) for a project not considered consistent with "1" above, extraordinary mitigation per Table 5.5-9b is required.

<b>Table 5.5-9a City of San Diego Wetland Mitigation Ratios (with biologically superior design)</b>	
<b>Vegetation Community</b>	<b>Mitigation Ratio</b>
Riparian	2:1 to 3:1
Vernal pool*	2:1 to 4:1
Basin with fairy shrimp*	2:1 to 4:1
Freshwater marsh	2:1
*The City does not currently have take authority for vernal pools. A draft vernal pool HCP has been prepared by the City in coordination with the Wildlife Agencies. If adopted, the City would have "take" authority for the vernal pool species occurring within the vernal pool HCP areas.	

Table 5.5-9b City of San Diego Wetland Mitigation Ratios (Without Biologically Superior Design)	
Vegetation Community	Mitigation Ratio
Riparian	4:1 to 6:1
Vernal pool*	4:1 to 8:1
Basin with fairy shrimp*	4:1 to 8:1
Freshwater marsh	4:1
*The City does not currently have take authority for vernal pools. A draft vernal pool HCP has been prepared by the City in coordination with the Wildlife Agencies. If adopted, the City would have "take" authority for the vernal pool species occurring within the vernal pool HCP areas.	

As part of any future project-specific environmental review pursuant to CEQA, all unavoidable wetlands impacts (both temporary and permanent) shall be analyzed and mitigation required in accordance with the City's Biology Guidelines; mitigation shall be based on the impacted type of wetland habitat. Mitigation shall prevent any net loss of wetland functions and values of the impacted wetland. The following provides operational definitions of the four types of activities that constitute wetland mitigation under the ESL Regulations:

- **Wetland creation** is an activity that results in the formation of new wetlands in an upland area. An example is excavation of uplands adjacent to existing wetlands and the establishment of native wetland vegetation.
- **Wetland restoration** is an activity that re-establishes the habitat functions of a former wetland. An example is the excavation of agricultural fill from historic wetlands and the re-establishment of native wetland vegetation.
- **Wetland enhancement** is an activity that improves the self-sustaining habitat functions of an existing wetland. An example is removal of exotic species from existing riparian habitat.
- **Wetland acquisition** may be considered in combination with any of the three mitigation activities above.

Wetland enhancement and wetland acquisition focus on the preservation or the improvement of existing wetland habitat and function and do not result in an increase in wetland area; therefore, a net loss of wetland may result. As such, acquisition and/or enhancement of existing wetlands shall be considered as partial mitigation only for any balance of the remaining mitigation requirement after restoration or creation if wetland acreage is provided at a minimum of a 1:1 ratio.

For permanent wetland impacts that are unavoidable and minimized to the maximum extent feasible, mitigation shall consist of creation of new in-kind habitat to the fullest

extent possible and at the appropriate ratios. If on-site mitigation is not feasible, then at least a portion of the mitigation must occur within the same watershed. The City's Biology Guidelines and MSCP Subarea Plan require that impacts on wetlands, including vernal pools, shall be avoided, and that a sufficient wetland buffer shall be maintained, as appropriate, to protect resource functions/values. The project specific biology report shall include an analysis of on-site wetlands (including City, state, and federal jurisdiction analysis) and, if present, include project alternatives that fully/substantially avoid wetland impacts. Detailed evidence supporting why there is no feasible less environmentally damaging location or alternative to avoid any impacts must be provided for City staff review, as well as a mitigation plan that specifically identifies how the project is to compensate for any unavoidable impacts. A conceptual wetland mitigation plan (which includes identification of the mitigation site) shall be approved by City staff prior to the release of the draft environmental document. Avoidance shall be the first requirement; mitigation shall only be used for impacts clearly demonstrated to be unavoidable.

Prior to the commencement of any construction-related activities on-site for projects impacting wetland habitat (including earthwork and fencing) the applicant shall provide evidence of the following to the Mayor-Appointed Environmental Designee prior to any construction activity:

- Compliance with USACE Section 404 nationwide permit;
- Compliance with the RWQCB Section 401 Water Quality Certification; and
- Compliance with the CDFW Section 1601/1603 Streambed Alteration Agreement.

***Vernal Pools and Vernal Pool Species:*** Impacts to vernal pools shall require assessments of vernal pool flora and fauna, hydrology, habitat function, and restoration potential and protocol fairy shrimp surveys, in addition to the requirements listed above. Impacts to fairy shrimp shall require either a Section 10(a)1(A) permit or Section 7 consultation Biological Opinion from USFWS. If the VPHCP is adopted, the City will receive take authorization for the seven vernal pool species.

Mitigation for projects impacting vernal pools shall include salvage of sensitive species from vernal pools to be impacted, introduction of salvaged material into restored vernal pool habitat where appropriate (e.g., same pool series), and maintenance of salvaged material pending successful restoration of the vernal pools. Salvaged material shall not be introduced to existing vernal pools containing the same species outside the vernal pool series absent consultation with and endorsement by vernal pool species experts not associated with the project (e.g., independent expert). The mitigation sites shall include preservation of the entire watershed and a buffer based on functions and values; however, if such an analysis is not conducted, there shall be a default of a 100-foot buffer from the watershed.

## 5.5.7 Significance after Mitigation

### Issue 1: Sensitive Plant and Wildlife Species

Implementation of the Plans and associated discretionary actions has the potential to result in significant direct and indirect impacts to sensitive plant and animal species (Impacts BIO-1 through BIO-3); however, implementation of MM-BIO-1 would require site-specific environmental review and analysis of potential impacts to biological resources. Implementation of MM-BIO-1 would reduce significant project-level impacts to sensitive plant and wildlife species to below a level of significance.

### Issue 2: Migratory Wildlife

Compliance with established standards and regulations including ESL Regulations, MSCP, the City's Biology Guidelines, and the Mitigation Framework (MM-BIO-2 and MM-LU-1) would serve to reduce impacts related to migratory wildlife (Impact BIO-4) to below a level of significance.

### Issue 3: Sensitive Habitat

Compliance with established development standards and regulations, along with implementation of the Mitigation Framework detailed in MM-BIO-1 would serve to reduce impacts to sensitive vegetation communities (Impact BIO-5) to below a level of significance.

### Issue 4: Invasive Plants

At the program level, compliance with the MHPA Land Use Adjacency Guidelines and the Mitigation Framework described in MM-LU-1 would reduce impacts related to invasive plants in the MHPA (Impact BIO-6) to less than significant.

### Issue 5: Wetlands

Compliance with established development standards, ESL Regulations as well as the MSCP Subarea Plan, the City's Biology Guidelines, and implementation of the Mitigation Framework detailed in MM-BIO-3 would serve to reduce impacts to wetlands, vernal pools, and other jurisdictional water resources (Impacts BIO-7 and BIO-8) at the program level to below a level of significance.

## 5.6 Historical Resources

This section analyzes potential impacts associated with historical resources (including subsurface archaeological resources and aboveground structures), tribal cultural resources, religious or sacred uses, and human remains that could occur if the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park) are adopted and implemented. It is based on the historical resources technical report (Appendix C) prepared for the Project.

### 5.6.1 Regulatory Framework

This section provides summary background information regarding applicable land use regulations at the federal, state, and local levels.

#### 5.6.1.1 Federal

The Plans do not have a federal nexus (i.e., federal funding or federal agency involvement) because no actual land disturbances would occur until projects are put forth. At that time, involvement with agencies like the U.S. Fish and Wildlife Service, the United States Environmental Protection Agency (U.S. EPA), and U.S. Army Corps of Engineers would likely necessitate compliance with cultural resource laws, and specifically with Section 106 of the National Historic Preservation Act of 1966, as amended.

#### 5.6.1.2 State

##### a. California Register of Historic Resources/California Environmental Quality Act

Compliance with the California Environmental Quality Act (CEQA) requires consideration of impacts to cultural resources as historical resources within projects, specifically CEQA Guidelines Section 15064.5(a) and 15064.5(c).

According to Section 15064.5 (a) of the CEQA Guidelines, a historical resource includes the following:

1. A resource listed in, or determined to be eligible for listing on, the California Register of Historical Resources,
2. A resource included in the local register, and
3. A resource which an agency determines to be historically significant.

A resource may be considered historically significant if it meets one of the following criteria for listing on the California Register of Historical Resources (CRHR; PRC Section 5024.1):

1. Associated with events that have made a significant contribution to the broad patterns local or regional history and cultural heritage of California or the United States.
2. Associated with the lives of persons important to the nation or to California's past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history of the state or nation.

In addition to meeting one of the above criteria, a resource must retain enough of its integrity of location, design, setting, materials, workmanship, feeling, and association. A resource does not need to have integrity of all, but of a sufficient number so that it conveys the essence of why it might be significant in the first place (California Code of Regulations [CCR] Title 14, Chapter 11.5 Section 4852(c)). CEQA also recognizes resources listed in a local historic register or deemed significant in a historical resource survey.

A project that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (Sections 15064.5(b) and 21084.1). CEQA Section 15064.5(b) defines substantial adverse change in the significance of an historical resource as the physical demolition, destruction, relocation, or alteration of an historical resource or its immediate surroundings such that the significance is materially impaired.

## **b. Native American Involvement**

Native American involvement in the development review process is addressed by several state laws. The most notable of the state laws is Senate Bill (SB) 18 which includes detailed requirements for local agencies to consult with identified California Native American Tribes early in the planning and/or development process. The California Native American Graves Protection and Repatriation Act (NAGPRA; 2001), like the federal act, ensures that Native American human remains and cultural items are treated with respect and dignity during all phases of the archaeological evaluation process in accordance with CEQA and any applicable local regulations.

The Native American Heritage Commission (NAHC) was contacted by the City of San Diego (City) in accordance with SB 18 requirements. NAHC provided a list of tribal contacts for consultation during the review process. The City of San Diego sent consultation letters to these tribal contacts describing the Park MPU process. The letter formally invited tribal representatives to request consultation regarding the Park MPU within a 90-day period in accordance with SB 18. No responses were received.

Additionally, in April 2014 the City of San Diego sent the Notice of Preparation for the Program Environmental Impact Report to the following Native American tribes, organizations, and individuals:

- Kumeyaay Cultural Heritage Preservation
- Kumeyaay Cultural Repatriation Committee

- Barona Group of Capitan Grande Band of Mission Indians
- Campo Band of Mission Indians
- Ewiiapaayp Tribal Office
- Inaja Band of Mission Indians
- Jamul Indian Village
- La Posta Band of Mission Indians
- Manzanita Band of Mission Indians
- Sycuan Band of the Kumeyaay Nation
- Viejas Band of Mission Indians
- Mesa Grande Band of Mission Indians
- San Pasqual Band of Mission Indians
- Ipai Nation of Santa Ysabel
- La Jolla Band of Mission Indians
- Pala Band of Mission Indians
- Pauma Band of Mission Indians
- Carmen Lucas
- Ron Christman
- Clint Linton
- Frank Brown – Intertribal Cultural Resource Council

### ***Assembly Bill 52***

Assembly Bill 52 (AB 52; Chapter 532, Statutes of 2014) was passed on September 25, 2014, and applies to all projects that file a notice of preparation (NOP) or notice of negative declaration or mitigated negative declaration on or after July 1, 2015. The bill requires that a Lead Agency begin consultation with a California Native American tribe if that tribe has requested, in writing, to be kept informed of projects by the Lead Agency, prior to the determination whether a negative declaration, mitigated negative declaration, or environmental impact report will be prepared. The bill also specifies mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. Additionally, AB 52 directs the Office of Planning and Research to revise Appendix G of the CEQA Guidelines to separate the consideration of tribal cultural resources from paleontological resources by July 1, 2016. Changes to Appendix G of the CEQA Guidelines specific to tribal cultural resources became effective on September 29, 2016.

In November 2011, the Planning Department began the initiation process to update the Mission Trails Regional Park Master Plan and develop the NRMP for the Park. During the course of the following three years, a series of public workshops were held and a NOP was released in April 2014, prior to the passage of AB 52. During this time, the City of San Diego had not received any formal requests for notification by a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed MPU. Therefore, consultation under AB 52 was not required. However, the City informally consulted with the Director of Cultural Resources for the Iipay Nation of Santa Ysabel in response to an email for notification in accordance with SB 18. The project scope and proposed mitigation framework was discussed and agreement was reached regarding proper treatment of Tribal Cultural Resources and no further consultation was required. On June 30, 2016, the City received a letter and map from the Director of Cultural Resources for the Iipay Nation of Santa Ysabel identifying their traditionally and culturally affiliated areas within the

City of San Diego's jurisdictional boundaries for the purpose of AB 52 notification which includes the MPU area. It should be noted that all subsequent projects implemented in accordance with the adopted MPU will be subject to the provisions of AB 52 and may require tribal consultation. The City is currently working directly with Mr. Linton on the development of procedures for a meaningful consultation process on future projects.

### **5.6.1.3 Local**

#### **a. Historical Resources Regulations**

The Historical Resources Regulations (HRR) are part of the San Diego Municipal Code (Chapter 14, Article 3, Division 2: Purpose of HRR or Sections 143.0201-143.0280). The HRR have been developed to implement applicable local, state, and federal policies and mandates. Included in these are the General Plan, CEQA, and Section 106 of the National Historic Preservation Act of 1966.

Part of the HRR consists of a Development Review Process for all projects in the City. This review process is composed of two parts: implementation of the HRR and a determination of impacts and mitigation under CEQA. The implementation of the HRR begins with the determination of the need for a survey of the project site. The need for a survey is based on historical resource information and the date and results of any previous surveys of a project site. Surveys are required if more than five years have elapsed since the last survey and the potential for resources exists. A historic property (built environment) survey is required if the structure/site is over 45 years old and appears to have integrity of setting, design, materials, workmanship, feeling, and association. Surveys must be conducted according to criteria in the Historical Resource Guidelines. If the survey results are negative, the review process is complete and no mitigation is required.

Historical resources, in the HRR context, include

... site improvements, buildings, structures, historic districts, signs, features (including significant trees or other landscaping), places, place names, interior elements and fixtures designated in conjunction with a property, or other objects of historical, archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance to the citizens of the city.

These include structures, buildings, archaeological sites, objects, districts, or landscapes having physical evidence of human activities. These are usually over 45 years old, and they may have been altered or still be in use (City of San Diego 2001b).

In addition to direct and indirect impacts, cumulative impacts must also be addressed during the CEQA review process. Cumulative impacts are a result of individually minor but collectively significant projects occurring over a period of time. Data recovery may be considered a cumulative impact due to the loss of a portion of the resource data base. Cumulative impacts also occur in districts when several minor changes to contributing properties, their setting, or landscaping eventually results in a significant loss of integrity (City of San Diego 2001b).

## **b. Historical Resources Guidelines**

The City's Historical Resources Guidelines amended in April 2001 are designed to implement the Historical Resources Regulations contained in Chapter 14, Division 3, Article 2 of the Land Development Code. If any resources have been recorded on the property, those resources must be evaluated for significance/importance in accordance with criteria listed in the Historical Resources Guidelines. Resources determined to be significant/important must either be avoided or a data recovery program for important archaeological sites must be developed and approved prior to permit issuance in order to assure adequate mitigation for the recovery of cultural and scientific information related to the resource's significance/importance.

## **5.6.2 Environmental Setting**

### **5.6.2.1 Cultural Setting**

#### **a. Prehistoric Period**

The following culture history outlines and briefly describes the known prehistoric cultural traditions within the southern California coastal and inland regions. The prehistoric cultural sequence in San Diego County is generally conceived as comprising three basic periods: the Paleoindian Period, the Archaic Period, and the Late Prehistoric Period.

#### ***Paleoindian Period (12,000–8,500 B.P.)***

The Paleoindian Period in San Diego County is most closely associated with the San Dieguito Complex as identified by Rogers (1938, 1939, 1945). The San Dieguito assemblage consists of well-made scraper planes, choppers, scraping tools, crescentics, elongated bifacial knives, and leaf-shaped points (Warren et al. 1993:III-33). Only a trace of this period can be found in the Park (MTRP History 2011).

#### ***Archaic Period (8,500–1,500 B.P.)***

The Archaic Period in coastal San Diego County is represented by the La Jollan Complex, a local manifestation of the widespread Millingstone Horizon. This period brings an apparent shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. Along with an economic focus on gathering plant resources, the settlement system appears to have been more sedentary. The La Jollan assemblage is dominated by rough, cobble-based choppers and scrapers, and slab and basin metates. Elko series projectile points (large side-notched points) appeared late in the period. Only a few archaeological sites dating to this period can be found in the Park (MTRP History 2011).

#### ***Late Prehistoric Period (1,500–180 B.P.)***

Near the coast and in the Peninsular Mountains beginning approximately 1,500 years ago, patterns began to emerge which suggest that the ancestors of the ethnohistoric Kumeyaay occupied the area. This period is characterized by higher population densities and elaborations in social, political,

and technological systems and is referred to as the Cuyamaca Complex. The Cuyamaca Complex is characterized by the presence of steatite arrowshaft straighteners, steatite pendants, steatite comales (heating stones), Tizon Brown Ware pottery, ceramic figurines reminiscent of Hohokam styles, ceramic “Yuman bow pipes,” ceramic rattles, miniature pottery, various cobble-based tools (e.g., scrapers, choppers, hammerstones), bone awls, manos and metates, mortars and pestles, Desert Side-Notched (more common) and Cottonwood Series projectile points (True 1970) and cremation burial practices. The majority of the archaeological sites within the Park date to the Late Prehistoric Period.

## **b. Ethnographic Background**

Over 30 sites in the study area can be associated with the Kumeyaay (MTRP History 2011). The Kumeyaay (also known as Kamia, Ipai, Tipai, and Diegueño) occupied the southern two-thirds of San Diego County, and therefore the Park (Luomala 1978). The Kumeyaay lived in semi-sedentary, politically autonomous villages, or rancherías. A settlement system typically consisted of two or more seasonal villages with temporary camps radiating away from these central places (Cline 1984). Their economic system consisted of hunting and gathering, with a focus on small game, acorns, grass seeds, and other plant resources. A wide range of tools was made of locally available and imported materials, including scrapers, choppers, flake-based cutting tools, and biface knives. Preferred stone types of metavolcanics, cherts, and quartz were locally available. Obsidian was imported from the deserts to the north and east. Ground stone objects include mortars and pestles typically made of locally available fine-grained granite. Both portable and bedrock types are known. The Kumeyaay made fine baskets and pottery, using the paddle-and-anvil technique. Most were a plain brown utility ware called Tizon Brown Ware, but some were decorated (May 1978; Spier 1923).

## **c. Historic Period**

The Spanish Period (1769–1821) begins with the founding of the Mission San Diego de Alcalá and Presidio de San Diego. The mission had vast tracts of land on which cattle, horses, sheep, and goats grazed. As the mission matured and soldiers from the Presidio married and retired, large land grants were made to well-connected individuals to encourage settlement. The rancho system developed with cattle hides and tallow as the principal Alta California export (Rolle 1998). European contact substantially and pervasively stressed the social, political, and economic fabric of the Native American culture (Shipek 1986). Disease, starvation, and a general institutional collapse caused emigration, birth rate declines, and high adult and infant mortality levels for the Native American groups in San Diego County (Cook 1976).

During the Mexican Period (1822–1848), the mission system was secularized by the Mexican government. Secularization opened up vast lands formerly belonging to the Catholic Church, and many more land grants were made. The southern California economy became increasingly based on cattle ranching. The Mexican Period ended when Mexico signed the Treaty of Guadalupe Hidalgo on February 2, 1848, concluding the Mexican-American War (1846–1848). California became a state in 1850 (Rolle 1998).

After the Treaty of Guadalupe Hidalgo in 1848 (beginning of the American Period), the population in San Diego County more than tripled (Pourade 1963). By the late 1800s, development in the county

was well under way with the beginnings of a recognizable downtown San Diego area and the gradual development of a number of outlying communities, many of which were established around previously defined ranchos and land grants. A rural community cultural pattern existed in San Diego County from approximately 1870 to 1930. They lived on scattered farmsteads tied together through a common school district, church, post office, and country store (Hector and Van Wormer 1986).

The central core of the Park and East Elliott were part of two large land grants: Mission San Diego and El Cajón. During the Spanish Period, the El Cajón land grant was operated by the Catholic Church and used for cattle, vineyards, and corn fields. After secularization, it was granted to Doña Maria Antonia Estudillo de Pedrorena in 1845. During the Civil War the land grant began to be sold in pieces. In 1868, the largest section of the remaining land was sold to Isaac Lankershim, who grew wheat. Others had citrus groves and vineyards prior to the growth of communities such as El Cajon, Lakeside, and Santee (Pourade 1969).

Rancho de la Mission San Diego de Alcalá was run by Father Junipero Serra during the Spanish Period. The church grew wheat, corn, and beans and had vineyards and olive groves as well as cattle, sheep, pigs, and goats. The Old Mission Dam and Flume were built across Mission Gorge by Indian laborers after droughts in 1801 and 1803. Construction was completed in 1815. During the Mexican Period in 1846, Santiago Arguello was granted the land and was to pay the mission's debts, support the priests, and maintain religious services. The lands were opened to settlement after his death in 1885 (Pourade 1969). After secularization, the dam and flume were not maintained.

After 1885, the study area contained a number of ranches and farms. Granite mining took place in Mission Gorge starting in 1873. Sand and gravel were also extracted. Present-day Kumeyaay Lake is the result of these rock removal operations. The study area, including the West Sycamore and East Elliott areas, was also used by the military for artillery target training exercises during World War I. During World War II and the Korean War, the area was used for infantry, tank, and artillery training. Hikers have used the area as early as the 1920s (MTRP History 2011).

## **5.6.2.2 Identification Efforts**

### **a. Records Search and Literature Review**

A records search of the study area was requested from the South Coastal Information Center using the California Historical Resources Information System to identify previous studies in the area and to locate known cultural resources. The results can be found in Confidential Attachment 1. A total of 91 investigations have been conducted within the Park. The majority of the areas, including Lake Murray, Cowles Mountain, Mission Gorge, Fortuna Mountain, and East Elliott areas have been surveyed in the past. The Cowles Mountain, Mission Gorge, and Fortuna Mountain areas were surveyed in 1978 (Hanna 1978) and portions were surveyed later in 1991 (Dames and Moore 1991) and in 1993 (Glenn 1993). The entire East Elliott area was surveyed in 1988 (Hector 1988). Sycamore Landfill in the East Elliott area was re-surveyed in 1995 (Robbins-Wade 1995). Less than 50 percent of the West Sycamore area has been surveyed, and there may be unrecorded archaeological sites in this unsurveyed area. The most current survey in the West Sycamore area was completed in 2010 (Garcia-Herbst et al. 2010). Both prehistoric and historic cultural resources have been recorded throughout the entire study area.

A total of 173 cultural resources (112 archaeological sites and 61 isolated artifacts) that reflect the major themes of prehistory, mining, transportation, ranching, and military activity have been recorded within the study area (see Appendix C). Isolates consist of one or two prehistoric artifacts and are not considered significant historical resources under City of San Diego or CEQA criteria and are not included in the discussion of potential impacts and, therefore, will not be further discussed.

The types of sites that occur within the study area include the following:

- Prehistoric/Native American bedrock milling stations, seasonally used places usually for the processing of plant remains; through the pounding and grinding of acorns, seeds and other materials on bedrock surfaces, various types of depressions are created, which have been termed slicks, metates, basins, ovals, mortars, and cupules.
- Prehistoric/Native American campsites or villages, seasonally or year-round occupied sites containing cultural remains from daily life, stone tools and manufacturing debris, pottery, shellfish and animal bones in midden deposits.
- Prehistoric/Native American sacred or ceremonial places, e.g., rock art sites, Cowles Mountain solstice site, in the latter case where no physical remains may be found, but the importance of place is nonetheless significant in the minds and spirits of local Native peoples like the Kumeyaay.
- Historic era settlements from the Spanish, Mexican or American periods, possibly related to the Presidio, Mission, Padre Dam, villages, Old Town pueblo, farming and ranching, sand and mine operations, leaving their cultural traces in the form of remains like building foundations and walls, trash pits, privies, and domestic, business, and manufacturing debris.

Of the 112 recorded sites within the study area, 5 sites have been determined eligible for listing on the CRHR. Test excavations have been completed at two (CA-SDI-203 and -13227/H) of these sites in order to make that determination. The other three sites are at the Old Mission Dam and Flume (P-37-020910, CA-SDI-6658H and -6660H). The Old Mission Dam and Flume sites have been recorded and documented along different segments, and thus three different permanent numbers have been assigned and have been counted three times. The Old Mission Dam and Flume sites have been listed on the National Register of Historic Places (NRHP), designated as California Historic Landmark #52, and listed as San Diego Historical Resources Board Landmark #2.

Seventeen additional sites (P-37-014261, CA-SDI-9240, CA-SDI--10026, CA-SDI-11057, CA-SDI-11081, CA-SDI-11280, CA-SDI-11281, CA-SDI-11282, CA-SDI-11283, CA-SDI-11284, CA-SDI-11285, CA-SDI-11286, CA-SDI-11287, CA-SDI-11288, CA-SDI-11606, CA-SDI-13592, and CA-SDI-13593) have been tested for significance; however, no significance determinations were noted on the site forms for 15 of the sites. Of these 15 sites, 10 had no subsurface deposits as noted in the site forms. The other 2 sites (P-37-014261 and CA-SDI-11081) were determined not eligible for listing on the CRHR.

The historic component of CA-SDI-15881 was determined not eligible for the NRHP. No determination was made for the prehistoric component of CA-SDI-15881.

In summary, of the 173 cultural resources, 5 (3 Old Mission Dam, 1 prehistoric, and 1 multi-component sites) have been confirmed significant, 63 (61 isolates, 2 sites) are not significant, and a significance determination has not been made for 105 cultural resources. Table 2 in Appendix C presents the current status of the 112 cultural resources sites based on site form data and visual inspection using an aerial photograph. The visual inspection was completed by superimposing the digitized site locations on a current aerial photograph of the study area and noting if there was any development such as trails. A number of cultural resources currently have authorized and unauthorized trails that bisect their site boundaries. Some have been destroyed by road construction.

### 5.6.3 Thresholds of Significance

Historical resources significance determination, pursuant to the City's 2016 Significance Determination Thresholds, consists first of determining the sensitivity or significance of identified historical resources and, secondly, determining direct and indirect impacts that would result from project implementation.

Based on the City's 2016 Significance Determination Thresholds, that have been adapted for purposes of the programmatic analysis of the proposed Plans and associated discretionary actions, impacts related to historical resources would be significant if implementation of the MPU and associated discretionary actions would:

1. Result in an alteration, including the adverse physical or aesthetic effects and/or the destruction of a prehistoric or historic archeological site or historic building (including an architecturally significant building), structure, or object or site;
2. Result in an adverse impact to a prehistoric archaeological resource including religious or sacred use sites;
3. Result in an adverse impact to a prehistoric archeological resource including human remains.

Additionally, a significant impact related to tribal cultural resources would occur if the project would:

4. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
  - b) A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American.

## 5.6.4 Impact Analysis

### Issue 1: Prehistoric or Historical Resources

*Would implementation of the Plans and associated discretionary actions result in an alteration, including the adverse physical or aesthetic effects and/or destruction of a prehistoric or historic archaeological site or historic building (including an architecturally significant building), structure, object, or site?*

The City's Historical Resources Guidelines (April 2011) and CEQA Significance Thresholds (July 2016) provide criteria for evaluating impacts on cultural resources, which include direct, indirect, and cumulative impacts. Examples of direct impacts would include:

- Mass grading
- Permanent and temporary road construction
- Excavation for sewer and water pipelines
- Staging areas
- Access roads
- Demolition, grading, and excavation activities
- Deterioration due to neglect
- Alteration or repairs to a historic structure
- Inappropriate repair
- New addition
- Relocation from original site, or
- Isolation of a historic resource from its setting, when the setting contributes to its significance
- Soil stockpiling
- Construction of trails in open space or
- Increased awareness or exposure of a resource.

Indirect impacts in the built environment include the introduction of visual, audible, or atmospheric effects that are out of character with the cultural resource or alter its setting, when the setting contributes to a property's significance. Examples include, but are not limited to, the construction of a large-scale building, structure, object, or public works project that has the potential to cast shadow patterns on the cultural resource, intrude into its viewshed, generate substantial noise or vibrations, or substantially increase air pollution or wind patterns. For archaeological resources and tribal cultural resources, indirect impacts are often the result of increased public accessibility to resources not otherwise subject to impacts, which would result in an increased potential for vandalism and site destruction. Placing sites into open space does not always mean that there would not be the potential for indirect impacts on the resource. Since open space boundaries can change during the project review as a result of environmental design and/or community constraints, resources placed into open space need to be evaluated for indirect impacts.

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. The loss of a historical resource due to mitigation by data recovery could be considered a cumulative impact. In the built environment, cumulative impacts most often occur

to districts, where several minor changes to contributing properties, their landscaping, or to their setting over time result in a significant loss of integrity.

Impact thresholds are dependent on whether the cultural resource is important enough to qualify as a historical resource. There are three regulatory frameworks used to evaluate the significance of a cultural resource: federal, state, and local. Under these frameworks, agencies are required to determine how a project could affect a significant cultural resource. Under federal regulations, significant cultural resources are called historic properties and under CEQA and the city guidelines, they are called historical resources.

If a resource qualifies as an historical resource under CEQA, it must then be determined how the project could affect those qualities that make a resource significant in accordance with CEQA. Once it is known how a project would affect a resource, it is then possible to address whether the effect on the resource is adverse.

It is estimated that most of the areas were surveyed over 20 years ago. Less than 50 percent of the West Sycamore area has been surveyed for cultural resources. It should be noted that studies that are more than 3 years old generally need to be updated. Conditions related to weather, vegetation or ground cover, accessibility, and more could affect the adequacy of any cultural resource survey. These must all be weighed against the context and intensity of any subsequent project proposed in accordance with the Plans.

The NRMP includes management actions that have been set forth in order to protect sensitive biological resources. Some of these actions would involve limited soil disturbance, such as the installation of exclusionary fencing, erosion control measures, and weeding. Although the soil disturbance would be rather limited, the potential exists that these activities could disturb historical resources. Additional impacts could result from the removal of UXO by the U.S. Army Corps of Engineers should this be identified prior to or during implementation of management actions. Removal of UXO could require excavation and thus soil disturbance.

The MPU includes management recommendations for protection of cultural resources while providing recreational opportunities. Management Recommendation Number 4 states “protect and manage identified cultural resources through proper planning for avoidance of significant impacts, maintain site identification markings as appropriate, enforce historic preservation regulations for all park users, and develop and maintain an archaeological site monitoring program” and Recommendation Number 5 states “develop a plan in cooperation with interested local historical and archaeological groups, local Native American tribes, and educational institutions to promote public participation in historic preservation and enjoyment of cultural resources within MTRP.” Despite these management recommendations, MPU planning, facility, and habitat/species recommendations include the types of subsequent projects that could cause adverse impacts on historical resources. Projects that will require disturbing in situ soils have the highest potential to adversely impact historical resources. Some of these subsequent projects may include picnic tables, shade structures, and additional parking areas; installing new trails, improving existing trails, rerouting trails, and closing and restoring unauthorized trails. As noted above, removal of UXO could also result in an adverse impact to historical resources. Because construction of these types of projects could occur within areas known to contain historical resources, each subsequent project implemented in accordance with the MPU would need to be evaluated independently for its

potential impacts on historical resources depending upon the context and intensity of impacts on the environment.

Overall, potential impacts associated with implementation of the Plans would be significant (**Impact HIST-1**).

## Issue 2: Religious or Sacred Uses

*Would implementation of the Plans and associated discretionary actions adversely impact a prehistoric archaeological resource including religious or sacred uses?*

Cultural use of the Park by the Kumeyaay people has been well documented, both historically and prehistorically and their story is told in a permanent exhibit in the Park Visitor's Center which provides a window into the significance of the area to the tribal community. As such, the potential for religious or sacred uses to be impacted during future construction activities associated with implementation of the MPU is high, particularly considering the Park has been previously identified as an area of concern to the local Native American community, along with areas along waterways, where prehistoric resources are most likely to be found. The impact analysis for Issue 2 would be the same as outlined above for Issue 1 with the inclusion of an analysis of potential impacts to religious or sacred uses. Spirituality of place is often impossible to define because it transcends material remains, which archaeologists cannot recover during significance testing or data recovery programs. Therefore, significant impacts could occur to religious or sacred uses associated with subsequent projects implemented in accordance with the Plans. These impacts would be significant.

Impacts on known archaeological resources associated with religious or sacred uses, and those not yet found and formally recorded, could occur anywhere within the Park. Grading of original in situ soils could also expose buried archaeological resources and features including sacred sites. Potential impacts on archaeological religious or sacred uses associated with subsequent projects implemented in accordance with the Plans would be considered significant (**Impact HIST-2**).

## Issue 3: Human Remains

*Would implementation of the Plans and associated discretionary actions adversely impact a prehistoric archaeological resource including human remains?*

Impacts on human remains may be unavoidable in certain circumstances, especially when resources are discovered during resource evaluation or construction-related activities. When a subsequent project is submitted in accordance with the MPU, especially in areas of high archaeological resource sensitivity, consultation in accordance with AB 52 would be initiated and the potential for impacting human remains would be considered during the consultation process. Additionally, subsequent projects would be subject to the City's environmental review process to ensure compliance with federal, state, and local criteria for the appropriate treatment of human remains.

The discovery of human remains also demands that certain laws and protocols be followed before proceeding with any action that might disturb the remains further. If human remains are discovered, then the provisions set forth in California Public Resources Code Section 5097.98 and State Health

and Safety Code Section 7050.5 would be implemented in consultation with the assigned Most Likely Descendant as identified by the NAHC.

While it is preferable in all cases to avoid impacting human remains, this is not always possible given the uncertainties of unanticipated discoveries during construction. In the vicinity of a known cemetery or a prehistoric archaeological site suspected to be over 1,500 years old, interments are possible. Background research could help identify possible burial locations related to historic era properties. Forensic dogs or other nondestructive ground-penetrating techniques could help identify subsurface anomalies that might be related to the presence of burials. Forensic dogs have also been useful on sites where scattered cremation remains are present. When data recovery of an archaeological site is required, all possible pre-excitation planning would be implemented to guard against the accidental discovery of human remains. This would also apply to subsequent destruction of an archaeological site during project implementation because archaeological data recovery can never fully recover all the data from a site.

Potential impacts associated with the disturbance and/or discovery of human remains would be significant (**Impact HIST-3**), and mitigation is required.

#### Issue 4: Tribal Cultural Resources

*Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*

- a) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or*
- b) *A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American?*

Subsequent projects implemented in accordance with the adopted MPU would be subject to the provisions of AB 52 and may require tribal consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed MPU. Future AB 52 consultation may identify tribal cultural resources not yet found and formally recorded anywhere within the Park that could be impacted by subsequent projects. Grading of original in situ soils could also expose buried tribal cultural resources and features including sacred sites. Potential impacts on tribal cultural resources associated with subsequent projects implemented in accordance with the Plans would be significant (**Impact HIST-4**).

## 5.6.5 Significance of Impact

### Issue 1: Prehistoric or Historical Resources

Impacts on known prehistoric or historic resources (both archaeological and built environment) and those not yet found and formally recorded could occur anywhere in association with implementation of the Plans. Grading of original in situ soils could also expose buried archaeological resources and features. Potential impacts on historical resources associated with subsequent projects implemented in accordance with the Plans would be considered significant (**Impact HIST-1**).

### Issue 2: Religious or Sacred Uses

Impacts on known archaeological resources associated with religious or sacred uses, and those not yet found and formally recorded, could occur anywhere within the Park. Grading of original in situ soils could also expose buried archaeological resources and features including sacred sites. Potential impacts on archaeological religious or sacred uses associated with subsequent projects implemented in accordance with the Plans would be considered significant (**Impact HIST-2**).

### Issue 3: Human Remains

Impacts associated with the disturbance and/or discovery of human remains could occur anywhere within the Park where grading of original in situ soils occur. Potential impacts on human remains associated with subsequent projects implemented in accordance with the Plans would be significant (**Impact HIST-3**).

### Issue 4: Tribal Cultural Resources

Impacts on tribal cultural resources not yet found and formally recorded could occur anywhere within the Park. Grading of original in situ soils could also expose buried tribal cultural resources and features including sacred sites. Potential impacts on tribal cultural resources associated with subsequent projects implemented in accordance with the Plans would be considered significant (**Impact HIST-4**).

## 5.6.6 Mitigation Framework

The following mitigation framework would reduce impacts HIST-1 through HIST-4 to less than significant. Impact HIST-1 would be minimized through implementation of management recommendations for the protection of cultural resources included in the MPU. The Mitigation Framework detailed under MM-HIST-1a and MM-HIST-1b identifies the process of implementing those recommendations and would be required for future projects with the potential to impact historical resources.

### MM-HIST-1a: Archaeological and Tribal Cultural Resources

Prior to issuance of any development permit for a subsequent project tiering off of the MPU that could directly affect an archaeological or tribal cultural resource; the City shall require the following steps be taken to determine: (1) the presence of archaeological or tribal cultural resources and (2) the appropriate mitigation for any significant resources which may be impacted by a development activity. Sites may include, but are not limited to, privies, trash pits, building foundations, and industrial features representing the contributions of people from diverse socioeconomic and ethnic backgrounds. Resources may also include resources associated with prehistoric Native American activities.

### **Initial Determination**

The environmental analyst shall determine the likelihood for the project site to contain historical resources by reviewing site photographs and existing historic information (e.g., Archaeological Sensitivity Maps, the Archaeological Map Book, and the California Historical Resources Inventory System and the City's "Historical Inventory of Important Architects, Structures, and People in San Diego") and may conduct a site visit. If there is any evidence that the project area contains archaeological or tribal cultural resources, then an archaeological evaluation consistent with City Guidelines would be required. All individuals conducting any phase of the archaeological evaluation program must meet professional qualifications in accordance with the City's Historical Resources Guidelines.

### **Step 1**

Based on the results of the initial determination, if there is evidence that the project area contains archaeological resources, preparation of an evaluation report is required. The evaluation report could generally include background research, field survey, archaeological testing, and analysis. Before actual field reconnaissance would occur, background research is required that includes a record search at the South Coastal Information Center at San Diego State University. A review of the Sacred Lands File maintained by the NAHC must also be conducted at this time. Information about existing archaeological collections should also be obtained from the San Diego Archaeological Center and any tribal repositories or museums.

Once the background research is complete, a field reconnaissance must be conducted by individuals whose qualifications meet City standards. Consultants are encouraged to employ innovative survey techniques when conducting enhanced reconnaissance including, but not limited to, remote sensing, ground penetrating radar, and other soil resistivity techniques as determined on a case-by-case basis. Native American participation is required for field surveys when there is likelihood that the project site contains prehistoric archaeological resources or tribal cultural resources. If, through background research and field surveys, resources are identified, then an evaluation of significance, based on the City Guidelines, must be performed by a qualified archaeologist.

**Step 2**

Where a recorded archaeological site or tribal cultural resource (as defined in the Public Resources Code) is identified, the City shall initiate consultation with identified California Indian tribes pursuant to the provisions in Public Resources Code Sections 21080.3.1 and 21080.3.2, in accordance with AB 52. It should be noted that during the consultation process, tribal representative(s) will be involved in making recommendations regarding the significance of a tribal cultural resource which also could be a prehistoric archaeological site. A testing program may be recommended which requires reevaluation of the proposed project in consultation with the Native American representative, which could result in a combination of project redesign to avoid and/or preserve significant resources, as well as mitigation in the form of data recovery and monitoring (as recommended by the qualified archaeologist and Native American representative). The archaeological testing program, if required, shall include evaluating the horizontal and vertical dimensions of a site, the chronological placement, site function, artifact/ecofact density and variability, presence/absence of subsurface features, and research potential. A thorough discussion of testing methodologies including surface and subsurface investigations can be found in the City of San Diego's Historical Resources Guidelines. Results of the consultation process will determine the nature and extent of any additional archaeological evaluation or changes to the proposed project.

The results from the testing program will be evaluated against the Significance Thresholds found in the Guidelines. If significant historical resources are identified within the area of potential effects, the site may be eligible for local designation. However, this process would not proceed until such time that the tribal consultation has been concluded and an agreement is reached (or not reached) regarding significance of the resource and appropriate mitigation measures are identified. The final testing report must be submitted to Historical Resources Board staff for eligibility determination and possible designation. An agreement on the appropriate form of mitigation is required prior to distribution of a draft environmental document. If no significant resources are found and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation and testing phase indicates there is still a potential for resources to be present in portions of the property that could not be tested, then mitigation monitoring is required.

**Step 3**

Preferred mitigation for archaeological resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. For archaeological resources where

preservation is not an option, a Research Design and Data Recovery Program is required, which includes a Collections Management Plan for review and approval. When tribal cultural resources are present and also cannot be avoided, appropriate and feasible mitigation will be determined through the tribal consultation process and incorporated into the overall data recovery program, where applicable, or project-specific mitigation measures incorporated into the project. The data recovery program shall be based on a written research design and is subject to the provisions as outlined in CEQA Section 21083.2. The data recovery program must be reviewed and approved by the City's Environmental Analyst prior to distribution of a draft CEQA document and shall include the results of the tribal consultation process. Archaeological monitoring may be required during building demolition and/or construction grading when significant resources are known or suspected to be present on a site, but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development or dense vegetation.

A Native American observer must be retained for all subsurface investigations, including geotechnical testing and other ground disturbing activities whenever a tribal cultural resource or any archaeological site located on City property, or within the area of potential effects of a City project, would be impacted. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of California Public Resources Code Section 5097 must be followed. In the event that human remains are discovered during project grading, work shall halt in that area and the procedures set forth in the California Public Resources Code (Section 5097.98) and State Health and Safety Code (Section 7050.5), and in the federal, state, and local regulations described above shall be undertaken. These provisions would be outlined in the Mitigation Monitoring and Reporting Program included in a subsequent project-specific environmental document. The Native American monitor shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources. If the Native American community requests participation of an observer for subsurface investigations on private property, the request shall be honored.

#### **Step 4**

Archaeological Resource Management reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the Guidelines. The discipline shall be tailored to the resource under evaluation. In cases involving complex resources, such as traditional cultural properties, rural landscape districts, sites involving a combination of prehistoric and historic archaeology, or historic districts, a team of experts will be necessary for a complete evaluation. Specific types of historical resource reports are required to document the methods (see Section III of the Guidelines) used to determine the presence or absence of historical resources; to identify the potential impacts from proposed development and evaluate the significance of any identified historical resources; to document the appropriate curation of archaeological collections (e.g., collected materials and the associated records); in the case of potentially significant impacts to historical resources, to

recommend appropriate mitigation measures that would reduce the impacts to below a level of significance; and to document the results of mitigation and monitoring programs, if required.

Archaeological Resource Management reports shall be prepared in conformance with the California Office of Historic Preservation "Archaeological Resource Management Reports: Recommended Contents and Format" (see Appendix C of the Historical Resources Guidelines), which will be used by Environmental staff in the review of archaeological resource reports. Consultants must ensure that archaeological resource reports are prepared consistent with this checklist. This requirement will standardize the content and format of all archaeological technical reports submitted to the City. A confidential appendix must be submitted (under separate cover), along with historical resource reports for archaeological sites and tribal cultural resources, containing the confidential resource maps and records search information gathered during the background study. In addition, a Collections Management Plan shall be prepared for projects that result in a substantial collection of artifacts, which must address the management and research goals of the project, the types of materials to be collected and curated based on a sampling strategy that is acceptable to the City of San Diego. Appendix D (Historical Resources Report Form) may be used when no archaeological resources were identified within the project boundaries.

### **Step 5**

For Archaeological Resources: All cultural materials, including original maps, field notes, non-burial related artifacts, catalog information and final reports recovered during public and/or private development projects must be permanently curated with an appropriate institution, one which has the proper facilities and staffing for insuring research access to the collections consistent with state and federal standards unless otherwise determined during the tribal consultation process. In the event that a prehistoric and/or historical deposit is encountered during construction monitoring, a Collections Management Plan would be required in accordance with the project Mitigation Monitoring and Reporting Program. The disposition of human remains and burial-related artifacts that cannot be avoided or are inadvertently discovered is governed by state (i.e., AB 2641 [Coto] and California Native American Graves and Repatriation Act [NAGPRA] of 2001 [Health and Safety Code 8010-8011]) and federal (i.e., federal NAGPRA [USC 3001-3013]) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation.

Arrangements for long-term curation of all recovered artifacts must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance. When tribal cultural resources are present, or non-burial-related artifacts associated with tribal cultural resources are suspected to be

recovered, the treatment and disposition of such resources will be determined during the tribal consultation process. This information must then be included in the archaeological survey, testing, and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collections (dated May 7, 1993) and, if federal funding is involved, Title 36 of the Code of Federal Regulations Part 79. Additional information regarding curation is provided in Section II of the Historical Resources Guidelines.

**MM-HIST-1b: Built Environment Resources**

Prior to issuance of any development permit for a subsequent project tiering off the MPU that could directly affect historic buildings, structures, districts, or objects, the City shall require the following steps be taken to determine: (1) the presence of built environment resources and (2) the appropriate mitigation for any significant resources which may be impacted by a development activity. The mitigation would be the same as of HIST-1a. The mitigation framework shall include an evaluation following the requirements in the Historical Resources Regulations and Guidelines as indicated below.

Prior to issuance of any permit that would directly or indirectly affect a building/structure in excess of 45 years of age, the City shall determine whether the affected building/structure meets any of the following criteria: (1) National Register-Listed or formally determined eligible, (2) California Register-Listed or formally determined eligible, (3) San Diego Register-Listed or formally determined eligible, or (4) meets the CEQA criteria for a historical resource. The evaluation of historic architectural resources would be based on criteria such as: age, location, context, association with an important person or event, uniqueness, or structural integrity as indicated in the Historical Resources Guidelines and Historic Resources Regulations (San Diego Municipal Code Sections 143.0201-143.0280).

Preferred mitigation for historic buildings or structures is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. Depending upon project impacts, measures can include, but are not limited to, the following:

- a. Preparing a historic resource management plan.
- b. Designing new construction that is compatible in size, scale, materials, color, and workmanship to the historic resource (such additions, whether portions of existing buildings or additions to historic districts, shall be clearly distinguishable from historic fabric).
- c. Repairing damage according to the Secretary of the Interior's Standards for Rehabilitation.

- d. Screening incompatible new construction from view through the use of berms, walls, and landscaping in keeping with the historic period and character of the resource.

Specific types of historical resource reports are required to document the methods (see Section III of the Historical Resources Guidelines) used to determine the presence or absence of historical resources; to identify the potential impacts from proposed development and evaluate the significance of any identified historical resources. If potentially significant impacts to an identified historical resource are identified, these reports will also recommend appropriate mitigation to reduce the impacts to below a level of significance, where possible. If required, mitigation programs can also be included in the report.

## 5.6.7 Significance after Mitigation

### Issue 1: Prehistoric or Historical Resources

Although implementation of the Plans would have the potential to result in significant direct and indirect impacts to archaeological, tribal cultural, and historic built-environment resources, subsequent projects would be required to implement the Mitigation Framework (**MM-HIST-1a** and **MM-HIST-1b**) prior to implementation. The Mitigation Framework requires site-specific environmental review, analysis of potential impacts, tribal consultation, and recommendations for mitigation to reduce significant impacts to below a level of significance at the program level.

### Issue 2: Religious or Sacred Uses

Future projects implemented in accordance with the Plans that would have the potential to result in significant direct and indirect impacts to religious or sacred uses would be required to implement the Mitigation Framework (**MM-HIST-1a**). This Mitigation Framework, which includes the City's regulatory requirements, along with federal and state regulations, combined with the policies of the General Plan and the MPU, as well as consultation with Native American groups early in the development review process would ensure that potentially significant impacts to religious or sacred uses would be reduced to below a level of significance at the program-level.

### Issue 3: Human Remains

Future projects implemented in accordance with the Plans that would have the potential to result in impacts associated with the discovery of human remains would be required to implement the Mitigation Framework (**MM-HIST-1a**). This Mitigation Framework, which includes the City's regulatory requirements along with federal and state regulations set forth in California Public Resources Code Section 5097.98 and State Health and Safety Code Section 7050.5, combined with the policies of the General Plan and the MPU, as well as consultation with Native American groups early in the development review process would ensure that potentially significant impacts associated with the discovery of human remains would be reduced to below a level of significance at the program-level.

## Issue 4: Tribal Cultural Resources

Future projects implemented in accordance with the Plans that would have the potential to result in significant direct and indirect impacts to tribal cultural uses would be required to implement the Mitigation Framework (**MM-HIST-1a**). This Mitigation Framework, which includes the City's regulatory requirements, along with federal and state regulations, combined with the policies of the General Plan and the MPU, as well as consultation with Native American groups consistent with AB 52 early in the development review process would ensure that potentially significant impacts to tribal cultural resources would be reduced to below a level of significance at the program-level.

## 5.7 Human Health, Public Safety, and Hazardous Materials

This section addresses potential impacts to human health and public safety including the potential for exposure to hazards and hazardous materials, wildfire hazards, and unexploded ordnance (UXO) that could result from implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). It is based on the hazardous materials technical study (Appendix D) prepared for the Project and the fire management plan (included as Appendix A-D to the NRMP). Existing regulations pertaining to these hazards, as well as their presence within the study area, are also detailed.

### 5.7.1 Regulatory Framework

#### 5.7.1.1 Applicable Regulations

Numerous federal, state, and local laws and regulations pertaining to hazardous materials have been developed with the intent of protecting public health, the environment, surface water, and groundwater resources. Over the years, the laws and regulations have evolved to deal with different aspects of the handling, treatment, storage, and disposal of hazardous substances. Relevant laws and regulations include:

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, also known as "Superfund," and the Superfund Amendments and Reauthorization Act (SARA) of 1986 (amended CERCLA, SARA Title III). CERCLA, SARA Title III provide a federal framework for setting priorities for cleanup of hazardous substances releases to air, water, and land. This framework provides for the regulation of the cleanup process, cost recovery, response planning, and communication standards.
- Federal Resource Conservation and Recovery Act (RCRA) of 1976. This act established the authority of the U.S. Environmental Protection Agency to develop regulations to track and control hazardous substances from their production, through their use, to their disposal.
- Title 40 Code of Federal Regulations (CFR), Part 257, establishes criteria for the classification of solid waste disposal facilities and practices (Sections 257.1 to 257.30). The U.S. Environmental Protection Agency has the authority under RCRA to authorize states to implement RCRA, and California is a RCRA authorized state. The City of San Diego's (City's) Local Enforcement Agency (LEA) regulates solid waste within the City, including waste collection/disposal, illegal solid waste dumping, and hazardous solid waste sites requiring remediation.

- The City's Municipal Code includes general hazardous materials regulations (Sections 42.0801, 42.0901, and 54.0701) as well as regulations regarding specific hazardous materials such as explosives (Section 55.3301).
- The California Health and Safety Code Chapter 6.8 (also known as the Presley-Tanner Hazardous Substance Account Act) provides the California Department of Toxic Substances Control (DTSC) authority for oversight of releases of hazardous substances that pose a threat to the public health or the environment.
- To minimize fire risk, the City's Municipal Code includes regulations pertaining to brush management (Section 142.0412), construction materials for development near open space (Chapter 14, Article 5), and adequate fire flow.

### **5.7.1.2 Emergency Preparedness**

The County of San Diego Office of Emergency Services (OES) coordinates the overall County response to disasters. OES notifies appropriate agencies when a disaster occurs; coordinates responding agencies; ensures that resources are available and mobilized; plans for response to and recovery from disasters; and develops preparedness materials to the public. OES acts as staff to the Unified Disaster Council (UDC), a joint powers agreement among all 18 incorporated cities and the County of San Diego that provides for coordination of plans and programs countywide to ensure protection of life and property.

The Multi-Jurisdictional Hazard Mitigation Plan was developed with the participation of all jurisdictions in the County, including every incorporated City and the unincorporated County. The plan includes an overview of the risk assessment process, and identifies hazards present in the jurisdiction, hazard profiles, and vulnerability assessments. The plan identifies goals, objectives, and actions for each jurisdiction in the County.

## **5.7.2 Environmental Setting**

### **5.7.2.1 Regulatory Database Listings**

Appendix D to this EIR includes a review of regulatory agency databases, records review, limited visual site reconnaissance, and review of site history to identify potential Recognized Environmental Concerns (RECs). Regulatory agency databases and records were searched to identify sites within or near the study area that may pose a hazard to human health or the environment. The report identified the following sites within the study area that could pose a potential environmental or health concern, as detailed below.

- The Marine Corps Air Station (MCAS) Miramar, Camp Elliott Formerly Used Defense Site (FUDS) is a listed site due to the hazard associated with potential military munitions and UXO. Section 5.7.2.2 provides additional detail about the Camp Elliott FUDS.
- An AM/PM Mini Market located at 7255 Jackson Drive, adjacent to the study area, was identified in the GeoTracker database as an active Leaking Underground Storage Tank (LUST) remediation site. This site was formerly an ARCO service station and is now used for parking by the adjacent

library. The site was subject to remediation using soil vapor extraction and groundwater monitoring and assessment.

- The Alvarado Water Treatment (Filtration) Plant located at 5530 Kiowa Drive in the southern portion of the Lake Murray area was identified in the GeoTracker database as an active LUST site.
- The Sycamore Canyon Landfill, owned and operated by Allied Waste Systems is listed as an active LUST cleanup site in the East Elliott area. The landfill is a Class III, nonhazardous landfill that accepts non-hazardous, non-friable asbestos-containing materials.
- The RCRA database identified Fromex Photo Systems, an open hazardous waste cleanup site at 7299 Navajo Road. This site is located outside of the study area, west of the Lake Murray area. The identified hazard is associated with photo finishing chemicals.
- According to the Division of Oil, Gas, and Geothermal Resources of the California Department of Conservation, one “idle” oil and gas well was identified in proximity to the West Sycamore area, well #1, R.M. Cole Oil & Gas Syndicate.

### 5.7.2.2 Formerly Used Defense Sites

Use of military munitions in live-fire training and testing resulted in UXO in areas formerly used for military training activities within the study area, referred to as FUDS. The term UXO refers to explosive, propellant, or chemical-containing munitions that were armed or fired, and still remain unexploded. The study area is located partially within the Camp Elliott FUDS boundaries. The Camp Elliott FUDS is known or suspected to contain military munitions and explosives of concern. Because of the former Camp Elliott's size, the U.S. Army Corps of Engineers (USACE) has broken down the site into areas for purposes of site investigations and remediations (Figure 5.7-1).

These areas were identified by the study as Tierrasanta, Mission Trails, East Elliott, and Areas G, D, and H (see Figure 5.7-1). The portions of Camp Elliott located within the study area include Mission Trails, East Elliott, and Area G, which generally correspond to the West Sycamore, Mission Gorge, East Elliott, and Fortuna Mountain areas. The majority of munitions have been encountered within the Fortuna Mountain and East Elliott areas.

USACE has established programs to address the full range of UXO issues with public safety as a primary concern. The program is primarily achieved through education and outreach to inform military personnel and the public about the potential hazards associated with UXO. USACE monitors an inventory of reporting information for UXO materials within FUDS areas and implements a “Public Involvement Plan” and “Five-Year Recurring Reviews.”

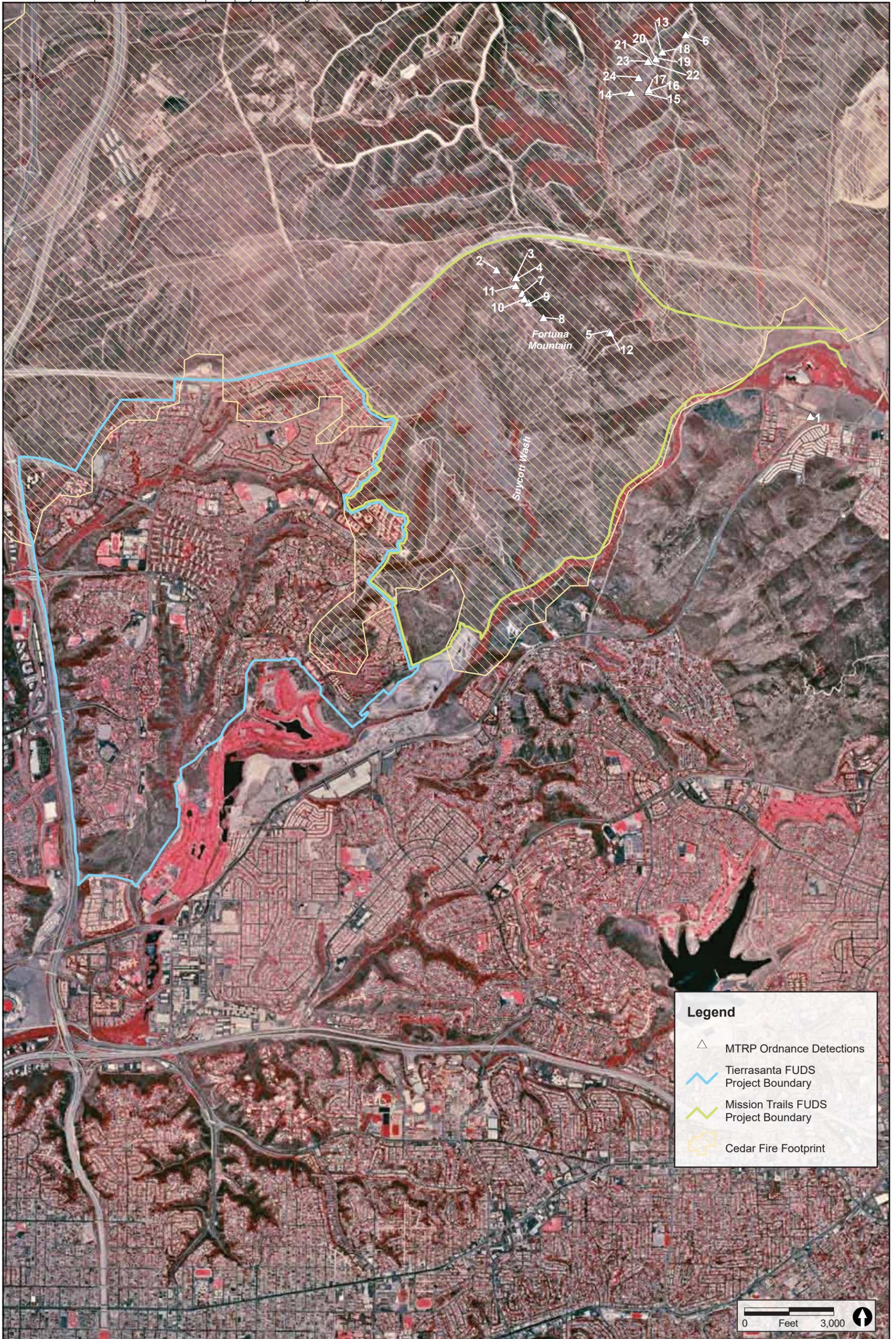


FIGURE 5.7-1  
Cedar Fire Footprint and Ordnance Detection Sites

### **5.7.2.3 Wildfire Hazards**

Due to the amount of natural, unmaintained open space characteristic of the study area and the proximity to urban areas, the area poses a high risk for wildfires. Dominant vegetation types within the study area include chaparral, coastal sage scrub, and grassland, all of which are highly combustible. There have been 12 fires within the study area since 1939 (Figure 5.7-2). In addition, an approximately 100-acre wildfire occurred within the Mission Gorge area along the Kwaay Paay Mountain in July 2014.

Wildfire hazards are particularly sensitive in the grass- and brush-covered hillsides that border metropolitan areas, such as the study area. The degree of fire hazard depends on climate, vegetation, and physical conditions. According to California Department of Forestry and Fire (CAL FIRE), a majority of the study area is designated as a Very High Fire Hazard Severity Zone (VHFHSZ), with the exception of the eastern portion within the Lake Murray area.

### **5.7.2.4 Aircraft Hazards**

The state requires that the San Diego County Regional Airport Authority Board, as the Airport Land Use Commission (ALUC), prepare an Airport Land Use Compatibility Plan (ALUCP) for each public-use airport and military air installation in San Diego County. An ALUCP contains policies and criteria that address compatibility between airports and future land uses that surround them by addressing noise, over flight, safety, and airspace protection concerns to minimize the public's exposure to noise and safety hazards within the airport influence area for each airport. The study area is outside of the airport influence area of any public airports and military air installations. The nearest airports are Montgomery Field, located approximately 3 miles west of the Mission Gorge area and MCAS Miramar Air Field, located approximately 4 miles west of the East Elliott area.

## **5.7.3 Significance Determination Thresholds**

Based on the City's 2016 Significance Determination Thresholds, which have been adapted to guide a programmatic analysis of the proposed Plans and associated discretionary actions, a significant health and safety impact would occur if implementation of the Plans and associated discretionary actions would:

1. Expose people or property to health hazards, including wildfire hazards;
2. Create future risk of an explosion or the release of hazardous materials (including, but not limited to, gas, oil, pesticides, chemicals, or radiation) or expose people or the environment to a significant hazard through the routine transport, use, or disposal of hazardous materials; or
3. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or environment.

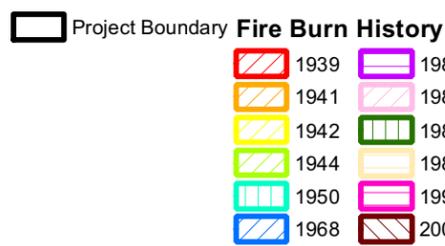
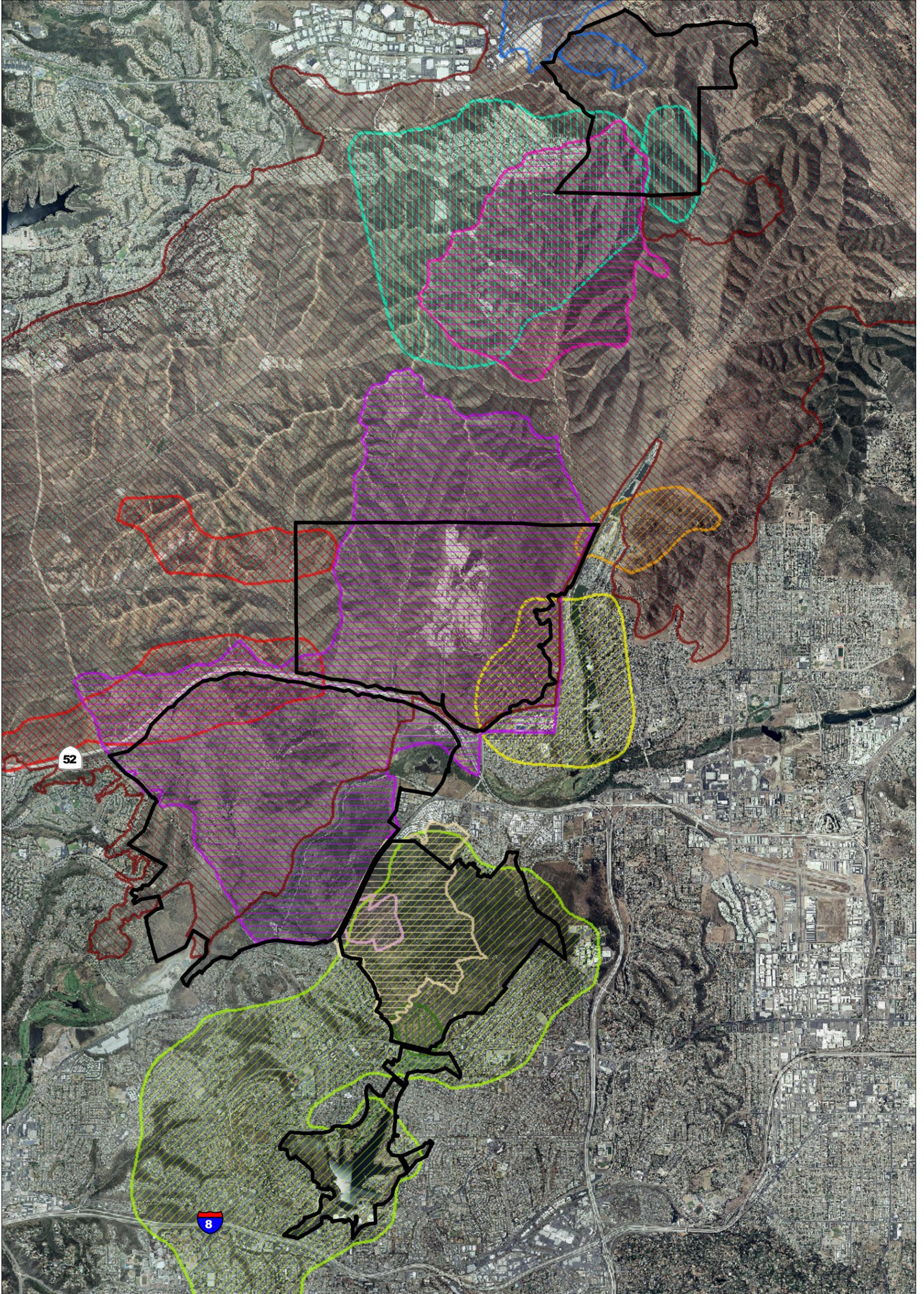


FIGURE 5.7-2  
Fire History

## 5.7.4 Impact Analysis

### Issue 1: Health and Safety Hazards

Would implementation of the Plans and associated discretionary actions expose people or property to health hazards, including wildfire hazards?

Based on the City's Significance Determination Thresholds, impacts related to health hazards, including fire, would be significant if implementation of the Plans would:

1. Expose people or structures to significant risk involving wildland fires; or
2. Impair implementation of an emergency response plan.

Management actions identified in the NRMP, such as hand weeding, erosion control, and exclusionary fencing, would not expose people or structures to wildfire hazards and would not impair implementation of emergency response plans. No impact would occur. The MPU is analyzed below.

It should be noted that potential health hazards associated with the use, disposal, release, or transport of hazardous materials; and/or exposure to sites containing hazardous materials are addressed under Issue 3, below. Health hazards related to exposure to air contaminants are discussed in Section 5.3, Air Quality, of this EIR.

Recreational users of the Park are currently exposed to potential wildfire hazards. Park rangers, along with the San Diego Fire Department (SDFD), San Diego Police Department (SDPD), and other jurisdictions work cooperatively in order to evacuate areas of the Park if a brush fire occurs. The access points near any areas where a wildfire is burning are closed off. In addition, the Park's existing programming sets forth educational material to Park users that wildfires are most likely to occur during late summer and fall, when vegetation is extremely dry, and Santa Ana conditions occur.

Multiple MPU Recommendations generally intend to strengthen emergency response actions and minimize fire risk within the Park. For example, Park-wide Management Recommendation 8 would implement an emergency response plan for the Park in collaboration with the SDFD and SDPD. Park-wide Facility Recommendation 13 would continue to prohibit fires within the Park to reduce fire danger, except within developed fire rings at the Kumeyaay Lake Campground, the East Fortuna Staging Area, and Lake Murray. Park-wide Facility Recommendation 16 states to conduct brush management in the brush management zone around all habitable structures within the Park in accordance with City brush management regulations.

In addition, one of the overall goals of the MPU is to continue to provide programs and interpretive signage to educate the public about the resources within the Park. Education on the role of wildfires in the region and the associated hazards to life and property would continue to be addressed within the Park's educational programming.

With regards to wildfire hazards, various MPU recommendations contemplate subsequent projects such as trail construction, restoration, restrooms, park benches, shade structures, and offices for Park

rangers. As previously detailed, the study area is located within a very high FHSZ. Wildfire events could expose both users of the Park and structures within the Park to risk from wildfire. While it is not expected that the structures contemplated by the MPU would necessarily increase the risk of wildfire within the study area, they would represent a new—albeit somewhat minor—source of combustible material within the Park. Therefore, impacts associated with the exposure of structures to wildfire hazards would be significant (**Impact HAZ-1**), and mitigation is required.

With regards to emergency response plans, subsequent projects contemplated by the MPU such as new trail construction, restoration, park benches, and shade structures would not have the potential to hinder implementation of such plans. These types of amenities would not impede travel of vehicles on roads or movement of people. In addition, there are numerous access routes providing ingress and egress into the Park, including paved and unpaved roads, as well as disturbed vegetation for overland travel (Figure 5.7-3). None of the MPU recommendations would impede use of these existing access routes. Therefore, impacts associated with impairment of an emergency response plan are considered less than significant.

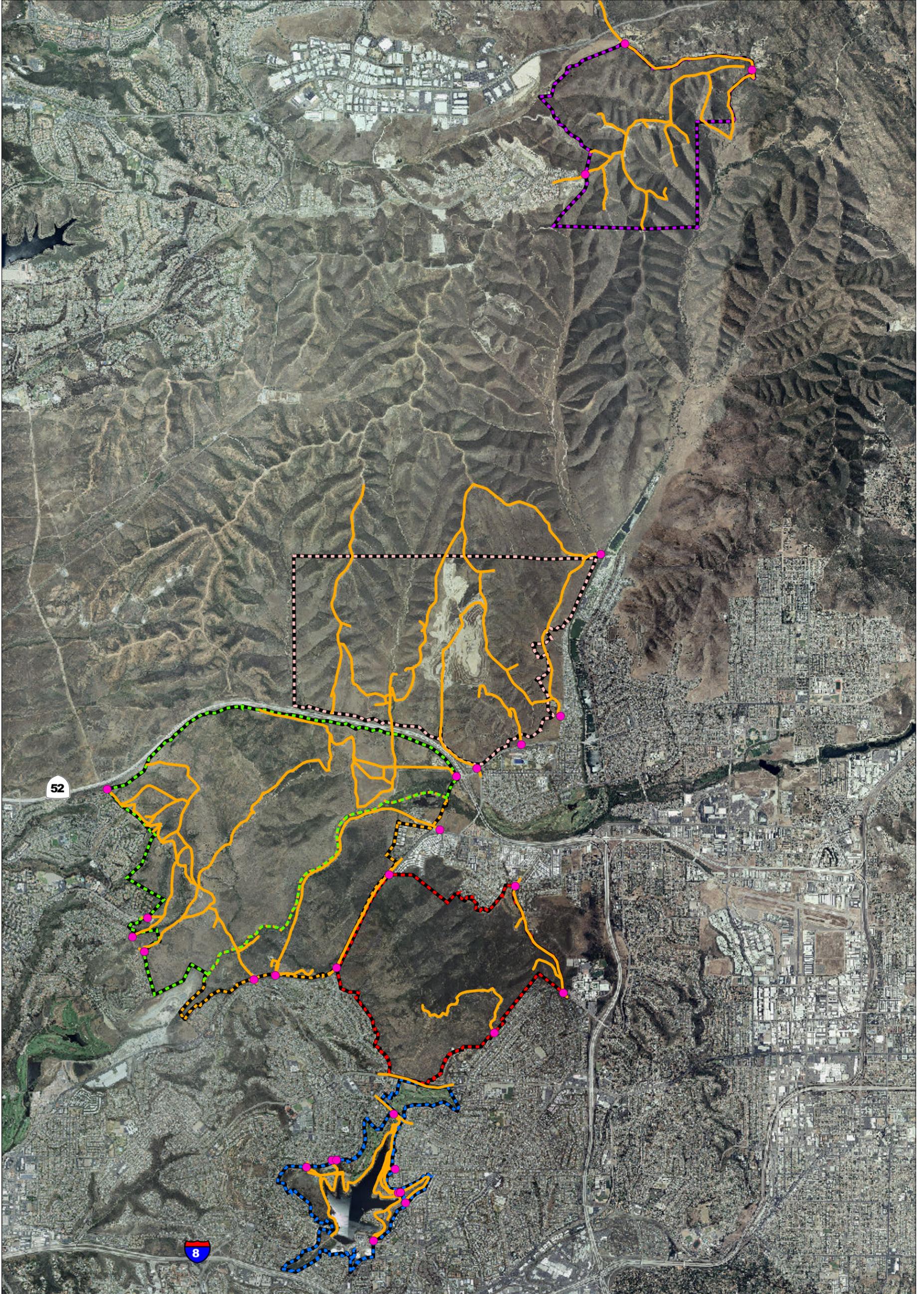
## Issue 2: Hazardous Substances

*Would implementation of the Plans and associated discretionary actions create future risk of an explosion or the release of hazardous substance (including, but not limited to gas, oil, pesticides, chemicals, or radiation)?  
Would the Plans expose people or the environment to a significant hazard through the routine transport, use, or disposal of hazardous materials?*

Management actions identified in the NRMP, such as hand weeding, erosion control, and exclusionary fencing, would not expose people or structures to wildfire hazards and would not impair implementation of emergency response plans. No impact would occur. The MPU is analyzed below.

MPU recommendations contemplate subsequent projects such as trails, parking areas, shade structures, benches, and restrooms. Future ground disturbance and grading activities for these projects would potentially encounter hazardous substances below ground. No addition of storage of explosive or hazardous substances is anticipated, with exception of development within the boundaries of former MCAS Miramar Camp Elliott. The USACE has established the Public Involvement Plan and Five-Year Recurring Reviews to monitor UXO materials. The long-term monitoring plan addresses UXO issues, provides public outreach and education, and minimizes health hazards to the public.

Based on the existing regulatory requirements in place to address hazardous material releases and emergency responses, implementation of subsequent projects contemplated by the MPU are not expected to result in a release of hazardous materials into the environment. In addition, these subsequent projects would be required to comply with applicable federal, state, and local regulations related to the accidental release of hazardous materials. Compliance with such regulations would minimize the potential for a release and provide planning mechanisms for prompt and effective cleanup in the event known or unknown subsurface hazardous materials are encountered. Due to required compliance with existing regulations, impacts related to an accidental hazardous materials release would be less than significant.



- |                                      |                       |                    |
|--------------------------------------|-----------------------|--------------------|
| Project Boundary                     | Cowles Mountain Area  | Lake Murray Area   |
| Existing Fire Response Access Routes | East Elliott Area     | Mission Gorge Area |
| Park Ingress                         | Fortuna Mountain Area | West Sycamore Area |



FIGURE 5.7-3  
Fire Response Access Routes

### Issue 3: Hazardous Sites

*Would implementation of the Plans and associated discretionary actions be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or environment?*

#### a. Formerly Used Defense Sites

The former Camp Elliott munitions training site, or FUDS, was identified in the record search of hazardous materials sites as being a source of contamination related to potential military munitions and UXO. The Camp Elliott FUDS is known or suspected to contain UXO and therefore may present an explosive hazard during implementation of subsequent projects contemplated by the MPU. The portions of Camp Elliott located within the study area correspond with the West Sycamore, Mission Gorge, East Elliott, and Fortuna Mountain areas. There were 23 detected ordnance locations in the Fortuna Mountain and East Elliott areas, where most of the UXOs have been uncovered (see Figure 5.7-1).

UXO is often found in a variety of shapes and sizes and can look like a pointed pipe, soda can, baseball, or muffler. These items can be encountered when conducting ground-disturbing activities such as grading or fence installations. Any subsequent projects contemplated by the Plans that involve ground disturbing activities within the former Camp Elliott areas have the potential to expose people to significant health hazards related to UXO.

For example, several MPU recommendations within the Fortuna Mountain area contemplate localized improvements or rerouting sections of trails. Rerouting trails may be associated with land disturbance in areas with buried or uncovered UXO, which would represent a potential hazard to human health during implementation of these subsequent projects.

In the East Elliott area, numerous management actions contemplated by the NRMP would involve biological resource mapping and surveys or conducting habitat restoration and revegetation within disturbed areas. These activities could present a human health hazard due to disturbance and activity within areas with potential UXO.

USACE is responsible for monitoring and inventorying information related to the presence of UXO materials within the Camp Elliott FUDS area. USACE is implementing a long-term monitoring program and a Public Involvement Plan with five-year recurring reviews to address UXO issues. These provide public outreach and education to inform personnel about the potential hazards associated with UXOs. Field safety warnings, emergency communications, instituting "Munitions and Explosives of Concern" warning signs, and circulating documents are used to educate and disseminate information about UXO hazards.

Implementation of these USACE programs has served to reduce the risk of hazards to the public and would continue to be implemented within the study area on a long-term basis pursuant to USACE regulations. USACE has initiated investigations at the Camp Elliott FUDS sites; however the area currently represents an ongoing hazard due to the potential presence of UXO. As a result, subsequent

projects contemplated by the Plans could expose people to hazards associated with UXO. Impacts would be significant (**Impact HAZ-2**) and mitigation is required.

## b. Other Hazardous Material Sites

Some subsequent projects contemplated by the Plans would involve ground disturbance or grading, which could potentially disrupt hazardous substances below ground due to the presence of contaminated sites identified within or near the study area. The records search and site reconnaissance completed by GHD (2016a) found several hazardous materials listings within or near the study area. Several active LUST sites were identified in addition to one hazardous waste handler listed in the RCRA database. One of the active LUST sites was identified as a former AM/PM market, located at the corner of Golfcrest and Jackson Drive, approximately one-eighth of a mile west of the northern Lake Murray area. This site is not expected to present a potential hazard associated with subsequent projects contemplated by the MPU due to its offsite location, the fact that it is currently used as a parking area for the adjacent San Carlos library, and because remediation of the site is complete according to the Geotracker listing.

The Alvarado Water Treatment Plant LUST listing is not expected to present a potential hazard associated with subsequent projects contemplated by the Plans, due to its location entirely within the Alvarado Treatment Plant site, where no subsequent projects have been proposed. The site listed on the RCRA listing would also not be disturbed due to its location at 7299 Navajo Road, outside of the study area. The two other LUST sites identified as MCAS Miramar, Camp Elliott (East and MCAS Miramar), and Camp Elliott (Mission Trails area) are listed due to the presence of military munitions.

The Sycamore Landfill, located within the East Elliott area, is also listed as a LUST clean-up site. Several MPU recommendations for the East Elliott area include working with the owners of the landfill to develop trails adjacent and on landfill property (see Recommendations EE-R23 and EE-R40 on Figure 3-7). Additionally, Recommendation EE-F4 would entail collaborating with the owners of the landfill to repurpose their administrative facilities and associated parking proposed just south of the landfill once the landfill closes as the primary entry point and staging area for East Elliot. The City LEA enforces regulations for the safe and proper handling of solid waste at landfills. Potential hazardous site impacts associated with the landfill from implementation of MPU recommendations are not expected due to the required regulatory oversight associated with landfill operations. Any activities on or near the landfill would occur in conjunction with the property owners and regulatory authorities including the LEA and the Department of Resources Recycling and Recovery (CalRecycle). In addition, any subsequent projects contemplated by the Plans located on or near the landfill would not require disturbance that could result in methane release.

Although none of the sites identified through the regulatory databases are expected to present a human or environmental health hazard due to subsequent projects contemplated by the Plans, unknown or buried hazardous substances could be encountered during ground-disturbing activities. If proper procedures are not followed in the event hazardous materials are encountered, these materials could be released into the environment and result in potential human health and environmental impacts. Therefore, impacts would be significant (**Impact HAZ-3**) and mitigation is required.

## 5.7.5 Significance of Impacts

### Issue 1: Health and Safety Hazards

MPU recommendations would generally serve to further educate Park users about wildfire risks within the Park, and would not alter or significantly increase the potential exposure of recreational users of the Park. Other MPU recommendations contemplate subsequent projects, such as offices for Park rangers, shade structures, and picnic areas. While these facilities would not represent a significant amount of habitable structures, they nevertheless would be subject to wildfire damage. Therefore, impacts associated with the exposure of structures to wildfire hazards would be significant (**Impact HAZ-1**), and mitigation is required.

Subsequent projects contemplated by the MPU would not interfere with emergency response plans, and evacuation routes within the Park would generally improve over time as these projects are implemented. Impacts would be less than significant.

### Issue 2: Hazardous Substances

Future projects implemented in accordance with the Plans would be subject to applicable federal, state, and local regulations related to the hazardous materials. When future projects are implemented, any applicable requirements of the City's Municipal Code related to minimizing potential impacts from hazardous materials, as well as any regulations imposed by federal, state, and other local agencies would be disclosed as part of the discretionary review process for subsequent projects. Therefore, impacts would be less than significant.

### Issue 3: Hazardous Sites

The study area currently represents an ongoing hazard due to the potential presence of UXO. As a result, subsequent projects contemplated by the Plans could expose people to hazards associated with UXO. Impacts would be significant (**Impact HAZ-2**) and mitigation is required.

The presence of other sites compiled pursuant to Government Code Section 65962.5 would result in potentially significant human health and environmental hazard impacts associated with implementation of subsequent projects contemplated by the Plans. Impacts would be significant (**Impact HAZ-3**) and mitigation is required.

## 5.7.6 Mitigation Framework

Adherence to the Mitigation Framework below would minimize impacts related to potential wildfire hazards (Impact HAZ-1).

**MM-HAZ-1:** Specific regulations associated with fire prevention are provided in Section 55.0101 (Adoption of the California Fire Code), Section 55.0901 (Fire Department Access and Water Supply), and Section 55.1001 (Fire Protection Systems and Equipment) of the Municipal Code.

The Municipal Code provides fire safety regulations in Municipal Code Section 142.0412 (Brush Management Regulations). Individual projects implemented pursuant to the Master Plan would be required to demonstrate compliance with applicable fire codes and would be required to implement applicable Brush Management Regulations under Section 142.0412 of the Municipal Code. These regulations include the following:

- Brush management is required in all base zones on publicly or privately owned premises that are within 100 feet of a structure and contain native or naturalized vegetation.
- Brush management activity is permitted within Environmentally Sensitive Lands (ESL; except for wetlands) that are located within 100 feet of an existing structure in accordance with Section 143.0110(c)(7). Brush management in wetlands shall be requested with a development permit in accordance with Section 143.0110 where the Fire Chief deems brush management necessary in accordance with Section 142.0412(i). Where brush management in wetlands is deemed necessary by the Fire Chief, that brush management shall not qualify for an exemption under ESL Regulations, Section 143.0110(c)(7).
- Brush Management Zones. Where brush management is required, a comprehensive program shall be implemented that reduces fire hazards around structures by providing an effective fire break between all structures and contiguous areas of native or naturalized vegetation. This fire break shall consist of two distinct brush management areas called "Zone One" and "Zone Two."
- Brush Management Zone Two is the area between Zone One and any area of native or naturalized vegetation and typically consists of thinned, native, or naturalized non-irrigated vegetation.
- Brush management activities are prohibited within coastal sage scrub, maritime succulent scrub, and coastal sage-chaparral habitats from March 1 through August 15 (bird nesting season), except where documented to the satisfaction of the City Manager that the thinning would be consistent with conditions of species coverage described in the Multiple Species Conservation Program Subarea Plan.

The following Mitigation Framework includes standard requirements and procedures that shall be implemented to ensure the proper handling of the removal of UXO (**Impact HAZ-2**):

**MM-HAZ-2:** Prior to initiating subsequent projects contemplated by the Plans that could involve subsurface disturbance within the former Camp Elliott FUDS, the City shall verify that the USACE has completed subsurface UXO clearance of the entire site, or a Remedial Action Work Plan (RAWP) shall be prepared and implemented in accordance with requirements and procedures of the DTSC, in consultation with the USACE.

The RAWP, including a Health and Safety Plan, shall be prepared prior to grading or ground disturbance in accordance with requirements and procedures of the DTSC. The RAWP shall thoroughly describe investigations and disposal activities. The draft RAWP

shall be reviewed and approved by City LEA staff and the DTSC, in consultation with the USACE.

At a minimum, the RAWP shall include the following performance criteria:

- Prior to initiation of UXO clearance activities all Park personnel and adjacent property owners shall be notified.
- Implementation of the RAWP shall be performed by a qualified contractor.
- Access into the work sites shall be limited to the contractor personnel specifically authorized to enter the work site.
- Prior to initiation of detonation operations, all nonessential personnel shall be evacuated to a distance outside the fragmentation zone of the UXO to be detonated; radio communication shall be maintained between all concerned parties.
- Where detonation activities in proximity to schools are needed, they shall occur outside of typical school hours, as feasible.
- Affected areas shall be secured prior to authorizing detonation of explosive charges. Signs shall be posted announcing blasting danger and guards shall be stationed at all likely pedestrian/recreational user entrances.
- When a detonation-in-place is to occur, contractor personnel shall be posted in a 360-degree radius around the detonation site, at a safe distance.
- No disposal procedures shall be applied until the item has been positively identified. After the inspection has been completed, and providing there are no residual hazards, the UXO Senior Supervisor shall authorize the resumption of site operations. In the event that an UXO cannot be destroyed on-site, or if an unidentified UXO is located, the Safety Representative shall be notified for appropriate assistance.

The RAWP shall detail the environmental investigations and define the procedures for disposing of UXO determined unsafe to move or handle (e.g., detonation-in-place disposal). Also to be included as part of the RAWP is an Explosive Safety Submission report that outlines the safety aspects associated with investigating and removing UXO. The potential for encountering UXO during the removal action poses a risk to on-site workers, nearby populations, and the environment. The Health and Safety Plan is an integral component of the RAWP and shall include safety precautions that all personnel must adhere to during implementation of the work plan. Violation of UXO-related safety precautions shall be grounds of dismissal.

The Health and Safety Plan shall also provide instructions for workers on standard work practices, hazard communication, identification, handling, removal, transportation, and detonation. These precautions may include, but are not limited to, the following:

- Prior to detonation of an UXO, sandbags filled with construction grade sand shall be utilized to tamp the detonation and minimize damage to nearby trees and shrubs. The preparation shall be thoroughly soaked with water and the immediate area watered well to minimize the possibility of secondary fires.
- Carry blasting caps in approved containers, and keep them out of the direct rays of the sun.
- Do not use explosives or accessory equipment that are obviously deteriorated or damaged. They may detonate prematurely or fail completely.
- Disposal operations shall not be initiated until at least one-half hour after sunrise and shall be concluded by at least one-half hour prior to sunset.
- Restrict and control access to the disposal site to a minimum of authorized personnel necessary for safe conduct of the disposal operations.
- Do not carry fire- or spark-producing devices into a disposal site except as specifically authorized.

The procedure for completing subsurface investigations and clearance is described below:

- The project site shall be surveyed and marked out in 100-by-100-square-foot grids.
- A Schonstedt detector shall be used to locate surface and subsurface anomalies.
- Motor vehicles shall be restricted to existing, actively used roads, during normal operations.
- Personnel shall drive as near as practical to the work site and walk into and out of the grid(s).
- In the event of a medical or fire emergency, vehicles shall be utilized wherever necessary.

Depending on the terrain at the project location, different sweep techniques shall be used. Varying sweep line intervals may be required. If the terrain is too steep to sweep safely, that portion of the grid not swept shall be mapped; and it would become the team leader's responsibility to devise the clearance method(s) suitable to the specific grid to assure complete clearance.

During the removal, all personnel shall receive highly specialized training. Personnel shall be briefed of safety regulations every day. Hazards of unexploded munitions shall be explained at each briefing, including other risks, such as those posed by rattlesnakes and poison oak, etc. Should UXO items be discovered during removal actions, proper

procedures (as detailed in the RAWP) shall be followed to ensure safe disposal. For example, a metal containment system may be placed around the item and then detonated by remote control from a safe distance.

All UXO shall undergo an initial assessment to identify the ordnance. No disposal procedures shall be applied until the item has been positively identified. In the event that an UXO cannot be destroyed on-site, or if an unidentified UXO is located, a Safety Representative shall be notified for appropriate assistance in accordance with applicable regulations.

The following Mitigation Framework includes standard requirements and procedures that shall be implemented to minimize risk to human health and the environment (**Impact HAZ-3**):

**MM-HAZ-3:** Subsequent projects contemplated by the Plans that involve ground disturbance may occur in areas of known environmental concern such as LUST sites or other potentially contaminated sites. Regulations within the Municipal Code require that future projects shall demonstrate that the site is suitable for the proposed use. For sites with recorded hazardous material concerns, the City or project applicant shall obtain confirmation from the County Department of Environmental Health (DEH) that the site has been remediated to the extent required for the proposed use. Clearance may be provided by County DEH when no hazardous materials are known, or expected to be present, or when remediation is required to be completed prior to clearance. Only upon receipt of DEH clearance would projects be recommended for approval.

## 5.7.7 Significance after Mitigation

### Issue 1: Health and Safety Hazards

Although implementation of the Plans and associated discretionary actions would have the potential to result in significant impacts related to wildfire hazards, subsequent projects would be required to implement the Mitigation Framework (**MM-HAZ-1**) prior to implementation. The Mitigation Framework requires site-specific environmental review, analysis of potential impacts, and recommendations for mitigation to reduce significant impacts to below a level of significance.

### Issue 2: Hazardous Substances

Impacts related to hazardous substance release would be less than significant. No mitigation is required.

### Issue 3: Hazardous Sites

Subsequent projects implemented in accordance with the Plans would be required to implement mitigation measures **MM-HAZ-2** and **MM-HAZ-3**. Compliance with these requirements and consultation with the appropriate regulatory agencies to verify that health risk has been remediated in accordance with all applicable local, state, and federal regulations will reduce potential hazards to below a level of significance.

## 5.8 Hydrology and Water Quality

This section addresses the potential hydrology and water quality impacts that would result from the Project and sets forth a mitigation framework that would reduce such impacts where applicable. It relies on a water quality study prepared for the Project (Appendix E) in addition to secondary source information and recommendations contained within the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). This section also details applicable regulations, receiving waters, flood hazards, and other relevant existing conditions within the study area.

### 5.8.1 Regulatory Framework

Various federal, state, and local regulations impose requirements on new development for erosion control, control of runoff contaminants, and control of direct discharge of water quality pollutants. These requirements are summarized below.

#### 5.8.1.1 Federal

##### a. Clean Water Act

The Clean Water Act is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. It established basic guidelines for regulating discharges of pollutants into the waters of the U.S. and requires that states adopt water quality standards to protect public health and enhance the quality of water resources.

Section 401 of the Clean Water Act requires that an applicant for a federal permit to conduct any activity, including the construction or operation of a facility which may result in the discharge of pollutants to waters of the U.S., must obtain certification from the state. Section 402 of the Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources, and Section 404 established a permit program to regulate the discharge of dredged material into waters of the U.S. Implementation of the Clean Water Act is the responsibility of the U.S. Environmental Protection Agency, which has delegated much of that authority to U.S. Army Corps of Engineers (USACE), as well as state and regional agencies.

The Section 303(d) process of the Clean Water Act requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology.

## **b. Federal Emergency Management Agency Flooding Regulations**

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 made the purchase of flood insurance mandatory for the protection of property located in Special Flood Hazard Areas (SFHAs). The Federal Emergency Management Agency (FEMA) provides subsidized flood insurance to communities that comply with FEMA regulations. The SFHAs and other risk premium zones applicable to each participating community are depicted on Flood Insurance Rate Maps (FIRMs). Sections 143.0145 and 143.0146 of the City of San Diego's (City's) Municipal Code contain updated development regulations within SFHAs.

## **c. Executive Order 11988**

Executive Order 11988 (Floodplain Management) addresses floodplain issues related to public safety, conservation, and economics. It requires federal agencies that intend to construct, permit, or fund projects within floodplains to:

- Avoid incompatible floodplain development
- Be consistent with the standards and criteria of the National Flood Insurance Program
- Restore and preserve natural and beneficial floodplain values

## **d. Executive Order 11990**

Executive Order 11990 (Protection of Wetlands) requires each federal agency, if financing, undertaking, or assisting in construction or improvements, to provide leadership and to take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for acquiring, managing, and disposing of federal lands and facilities. Federal agencies must do so when conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

### **5.8.1.2 State**

#### **a. Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act established the principal California legal and regulatory framework for water quality control. The Porter-Cologne Water Quality Control Act is embodied in the California Water Code. The California Water Code authorizes the State Water Resources Control Board (SWRCB) to implement the provisions of the federal Clean Water Act. The state of California is divided into nine regions governed by Regional Water Quality Control Boards (RWQCBs). The RWQCBs implement and enforce provisions of the California Water Code and the Clean Water Act under the oversight of the SWRCB.

The City is located within the purview of the San Diego RWQCB (Region 9). The Porter-Cologne Act also provides for the development and periodic review of Water Quality Control Plans (Basin Plans) that designate beneficial uses of California's major rivers and groundwater basins and establish

water quality objectives for those waters. The previously detailed 303(d) list is also updated by the RWQCB and SWRCB biannually.

### **b. California Department of Fish and Wildlife–Streambed Alteration**

The California Department of Fish and Wildlife (CDFW) is responsible for protecting, conserving, and managing wildlife, plant, fish, and riparian resources in the state of California. Under Sections 1600–1607 of the Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., southern willow scrub) associated with watercourses. CDFW jurisdictional resources are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. A Streambed Alteration Agreement would be required for a project that impacts certain CDFW jurisdictional resources. Such an agreement with CDFW would most likely require mitigation in the form of on-site, off-site, or in-lieu fee mitigation, or combination of all.

### **c. San Diego Regional Water Quality Control Board (San Diego RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 and Order No. R9-2015-0100, NPDES Permit No. CAS0109266**

The San Diego RWQCB adopted Order No. R9-2013-0001, NPDES No. CAS0109266, National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) draining the Watersheds within the San Diego Region. Under the authority of the Clean Water Act amendments and federal NPDES Permit regulations, the San Diego RWQCB issued this order to the Copermittees consisting of San Diego County, the 18 cities within San Diego County, the Port of San Diego, and the San Diego Regional Airport Authority. Also known as the MS4 permit, this order requires that all jurisdictions within the San Diego region prepare Jurisdictional Runoff Management Plans (JRMPs). Each of these jurisdictional plans must contain a component addressing construction activities and a component addressing existing development. The subsequent amendments expanded coverage to portions of Orange County and Riverside County within the San Diego Region (Region 9) and made other modifications.

## **5.8.1.3 Local**

### **a. Water Quality Control Plan for the San Diego Basin**

The San Diego Basin encompasses approximately 3,900 square miles, including most of San Diego County and portions of southwestern Riverside and Orange counties. The basin is composed of 11 major Hydrological Units (HUs), 54 Hydrological Areas (HAs), and 147 Hydrologic Subareas (HSAs), extending from Laguna Beach southerly to the United States-Mexico border. Drainage from higher elevations in the east flows to the west, ultimately into the Pacific Ocean. The Basin Plan defines existing and potential beneficial uses and water quality objectives for coastal waters, groundwater, surface waters, imported surface waters, and reclaimed waters in the basin. Water quality objectives seek to protect the most sensitive of the beneficial uses designated for a specific water body.

Beneficial uses are defined as: “the uses of water necessary for the survival or well-being of man, plants and wildlife. These uses of water serve to promote the tangible and intangible economic, social and environmental goals of mankind” (RWQCB 2011).

### **b. City of San Diego Jurisdictional Runoff Management Plan**

The City has updated its JRMP to conform with the requirements of the current MS4 Permit. The City's JRMP encompasses City-wide programs and activities designed to prevent and reduce storm water pollution within City boundaries. The JRMP is a total account of how the City plans to protect and improve the water quality of rivers, bays, and the ocean in the region in compliance with the MS4 permit. The document describes how the City incorporates storm water best management practices (BMPs) into land use planning, development review and permitting, City capital improvement program project planning and design, and the execution of construction contracts.

### **c. Water Quality Improvement Plans**

The MS4 Permit requires development of Water Quality Improvement Plans (WQIPs) that guide the Copermittees' jurisdictional runoff management programs towards achieving improved water quality in MS4 discharges and receiving waters. The WQIPs further the Clean Water Act's objectives to protect, preserve, enhance, and restore the water quality and designated beneficial uses of waters of the state. The requirement sets forth a collaborative and adaptive planning and management process that identifies the highest priority water quality conditions within a watershed management area and implements strategies through implementation of the JRMPs of the respective jurisdictions (San Diego RWQCB 2013). Most of Park is within the San Diego River Watershed Management Area WQIP, but a portion of the West Sycamore area is within the Los Peñasquitos Watershed Management Area WQIP.

### **d. Storm Water Management and Discharge Control Regulations (Land Development Code Section 43.0301, et seq.)**

The purpose of these regulations are to further ensure the health, safety, and general welfare of the citizens of the City by effectively prohibiting non-storm water discharges, including spills, dumping, and disposal of materials other than storm water to the MS4, and by reducing pollutants in discharges from the MS4 to receiving waters to the maximum extent practicable, in a manner pursuant to and consistent with the federal Water Pollution Control Act (Clean Water Act, 33 United States Code Section 1251 et seq.) and the MS4 permit.

### **e. Local Drainage Design Manual**

Chapter 14, Article 2, Division 2 of the Municipal Code outlines storm water runoff and drainage regulations which apply to all development in the City, regardless of whether or not a development permit or other approval is required. In addition, drainage design policies and procedures are provided in the City's Drainage Design Manual (which is incorporated in the Land Development Manual as Appendix B). The Drainage Design Manual provides a guide for designing drainage and drainage-related facilities for developments within the City. The Drainage Design Manual requires projects to coordinate proposed designs with existing structures and systems handling the same

flows to ensure that new projects would not result in any increased runoff or generate increased sediment or pollutants.

## **f. Storm Water Standards Manual**

The City's Storm Water Standards Manual was updated in January 2016 to reflect the requirements of the updated MS4 permit (City of San Diego 2016). The manual addresses, and provides guidance for complying with, updated on-site post-construction storm water requirements for Standard Projects and Priority Development Projects (PDPs), and provides updated procedures for planning, preliminary design, selection, and design of permanent storm water BMPs based on the performance standards presented in the MS4 Permit. Primary elements of the Storm Water Standards Manual include:

- Low Impact Development (LID) BMP Requirements and performance standards
- Source control and site design BMPs
- BMPs applicable to individual PDP categories
- Storm water pollutant control standards
- Hydromodification Management BMPs

The purpose of hydromodification management requirements for PDPs is to minimize the potential of storm water discharges from the MS4 from causing altered flow regimes and excessive downstream erosion in receiving waters. Hydromodification management implementation for PDPs includes two components: protection of critical coarse sediment yield areas and flow control for post-project runoff from the project site. Future development projects proposed within areas discharging into underground storm drains discharging directly to bays or the ocean are exempt from hydromodification management requirements.

## **g. Municipal Code – Environmentally Sensitive Lands Regulations, Special Flood Hazard Areas**

Chapter 14, Article 3 of the Land Development Code (LDC) contains the Environmentally Sensitive Lands (ESL) Regulations, which are intended to “protect, preserve and where damaged restore the environmentally sensitive lands of the City and the viability of the species supported by those lands.” ESL Regulations apply to all proposed development when environmentally sensitive lands are present, including development within SFHAs as defined by FIRMs published by FEMA. The San Diego River is considered a SFHA and is subject to development regulations for SFHA's specified in Municipal Code Section 143.0145. The development regulations and all other applicable requirements and regulations of FEMA apply to all development proposing to encroach into a SFHA, including both the floodway and flood fringe areas.

## 5.8.2 Environmental Setting

### 5.8.2.1 Watershed Management Areas, Hydrologic Units, Hydrologic Areas, and Hydrologic Subareas

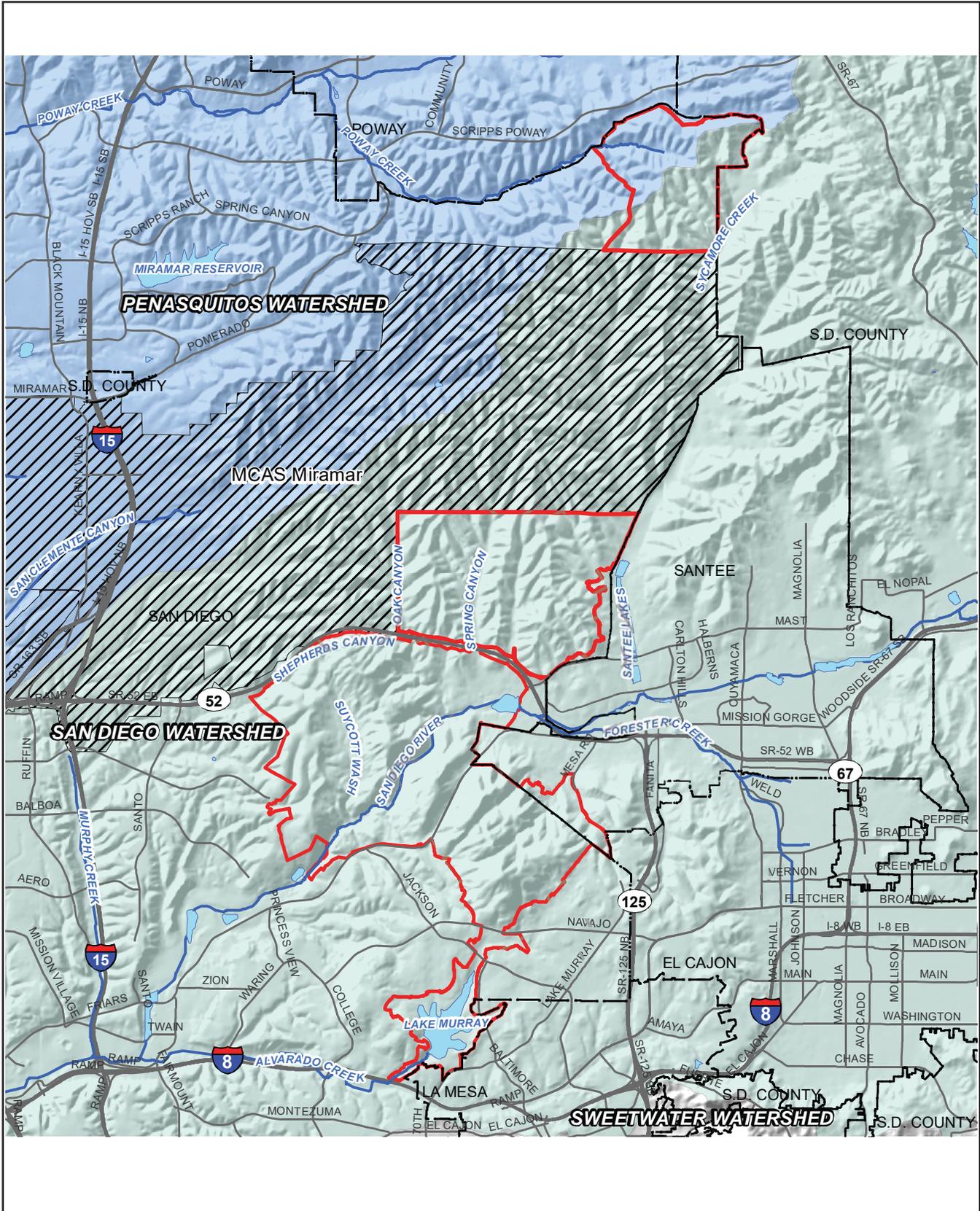
The study area is located within two major watersheds: San Diego River and Los Peñasquitos Creek. A majority of the study area drains to receiving waters within the San Diego River, while the northern half of the West Sycamore area drains to the Los Peñasquitos Creek watershed. As previously detailed, the Basin Plan (prepared by the San Diego RWQCB) identifies the water quality objectives for waters in the basin and subdivides it into: HUs (the entire watershed of one or more major streams), HAs (watersheds of major tributaries and/or major groundwater basins within an HU), and HSAs (major subdivisions of hydrologic areas including both water-bearing and non-water-bearing formations).

As shown in Figure 5.8-1, the majority of the study area is located within the San Diego HU (907.00), Lower San Diego HA (907.10), Mission San Diego HSA (907.11), and Santee HSA (907.12). The northern half of the West Sycamore area is located within the Peñasquitos HU (906.00) and Poway HA (906.20). The Peñasquitos HU does not have a HSA. The characteristics of these HUs are described further below.

The San Diego HU is described by the Basin Plan as a long, triangular-shaped area of about 440 square miles drained by the San Diego River. The El Capitan, San Vicente, Cuyamaca, Jennings, and Murray reservoirs are the major water storage facilities. Much of the stored water is used to serve major population centers, including a portion of the San Diego metropolitan area and the communities of El Cajon, Santee, Lakeside, Alpine, and Julian. Annual precipitation ranges from less than 11 inches at the coast to about 35 inches around Cuyamaca and El Capitan Reservoir.

The Peñasquitos HU is described by the Basin Plan as a triangular-shaped area of about 170 square miles, extending from Poway on the east to La Jolla on the west. There are no major streams in this unit although it is drained by numerous creeks. Annual precipitation in the HU ranges from less than 8 inches along the ocean to 18 inches inland. Poway and La Jolla are the major population centers.

A majority of the project area drains to the San Diego River watershed, to the receiving waters of Forester Creek, Murray Reservoir, Lower San Diego River, and Sycamore Canyon. The northern portion of the West Sycamore area drains to the Peñasquitos watershed, through Poway Creek.



**Legend**

-  Rivers
-  Lakes
-  Municipal Boundaries
-  MCAS Miramar
-  MTRP Boundary and Expansion Areas

**Watersheds**

-  PENASQUITOS
-  SAN DIEGO



**FIGURE 5.8-1**

**Watershed and Surface Hydrology**

## 5.8.2.2 Surface Waters/Drainage Patterns

### 5.8.2.3 Receiving Waters

The project drains to five receiving waters including Poway Creek, Sycamore Canyon, the Lower San Diego River, Forester Creek, and Murray Reservoir (Table 5.8-1).

Project Area	Poway Creek	Sycamore Canyon	Lower San Diego River	Forester Creek	Murray Reservoir
West Sycamore Area	X	X			
East Elliott Area		X	X		
Fortuna Mountain Area			X		
Mission Gorge Area			X		
Cowles Mountain Area			X	X	X
Lake Murray Area					X

SOURCE: GHD Inc. (2014b).

#### a. Beneficial Uses

As previously detailed, the San Diego RWQCB is responsible for establishing ground and surface water quality objectives for the region. Beneficial uses are defined as the uses of water necessary for the survival or well-being of humans, plants, and wildlife, which in turn serve to promote economic, social, and environmental goals. The Basin Plan assigns multiple beneficial uses pertaining to inland surface water, ground water, and coastal waters within the San Diego Watershed Management Area. Table 5.8-2 lists the beneficial uses of inland surface waters and groundwater basins within the watersheds affected by the MPU. Table 5.8-3 lists the beneficial uses of the downstream coastal lagoons at the mouth of the San Diego River.

Table 5.8-2 Beneficial Uses of Receiving Waters – Inland Surface Waters and Groundwater														
	HU Basin #	Municipal and Domestic Supply (MUN)	Agricultural Supply (AGR)	Industrial Service Supply (IND)	Industrial Process Supply (PROC)	Contact Water Recreation (REC-1)	Non-contact Water Recreation (REC-2)	Preservation of Biological Habitats of Special Significance (BIOL)	Warm Freshwater Habitat (WARM)	Cold Freshwater Habitat (COLD)	Wildlife Habitat (WILD)	Rare, Threatened, or Endangered Species (RARE)	Shellfish Harvesting (SHELL)	Hydropower Generation (HTYD)
<b>San Diego River Watershed</b>														
<b><i>Inland Surface Waters</i></b>														
San Diego River	907.11	+	●	●		●	●	●	●		●	●		
unnamed tributary	907.11	+	●	●		●	●		●		●	●		
Alvarado Canyon	907.11	+	●	●		●	●		●		●			
Murphy Canyon	907.11	+	●	●		●	●		●		●	●		
Shepherd Canyon	907.11	+	●	●		●	●		●		●			
Murray Canyon	907.11	+	●	●		●	●		●		●			
Slaughterhouse Canyon	907.12	○		●		●	●		●		●			
Los Coches Creek	907.12	○		●		●	●		●		●			
Forrester Creek	907.12	○		●		●	●		●		●			
Sycamore Canyon	907.12	+	●	●		●	●		●		●	●		
unnamed tributary	907.12	+	●	●		●	●		●		●	●		
Clark Canyon	907.12	+	●	●		●	●		●		●	●		
West Sycamore Canyon	907.12	+	●	●		●	●		●		●			
Quail Canyon	907.12	+	●	●		●	●		●		●			
Little Sycamore Canyon	907.12	+	●	●		●	●		●		●			
Spring Canyon	907.12	+	●	●		●	●		●		●	●		
Oak Canyon	907.12	+	●	●		●	●		●		●			
<b><i>Reservoirs and Lakes</i></b>														
Lake Murray	907.11	●		●		● <sup>1</sup>	●		●	●	●		●	●
<b><i>Groundwater</i></b>														
Mission San Diego HSA	907.11	○	●	●	●									
Santee HSA	907.12	●	●	●	●									
<b>Los Peñasquitos Creek Watershed</b>														
Los Peñasquitos Creek	906.20	+	●	○		●	●		●	●	●			
Rattlesnake Creek	906.20	+	●	○		●	●		●	●	●			
Poway Creek	906.20	+	●	○		●	●		●		●			
Beeler Creek	906.20	+	●	○		●	●		●		●			
Chicarita Creek	906.20	+	●	○		●	●		●		●			
Cypress Canyon	906.20	+	●	○		●	●		●		●			
<b><i>Groundwater</i></b>														
Poway HA	906.20	●	●	○										

A "●" indicates an existing beneficial use that was attained in the surface or ground water on or after November 28, 1975. A "○" indicates a potential beneficial use that will probably develop in future years. A "+" indicates that the water body has been exempted by the San Diego RWQCB from the municipal use designation.

<sup>1</sup>Fishing from shore or boat permitted, but other water contact recreational (REC-1) uses are prohibited.

SOURCE: San Diego RWQCB 2014.

**Table 5.8-3  
Beneficial Uses of Receiving Waters – Coastal Lagoons**

Coastal Lagoons	HU Basin #	Contact Water Recreation (REC-1)	Non-contact Water Recreation (REC-2)	Warm Freshwater Habitat (WARM)	Cold Freshwater Habitat (COLD)	Wildlife Habitat (WILD)	Rare, Threatened, or Endangered Species (RARE)	Commercial and Sport Fishing (COMM)	Spawning, Reproduction, and/or Early Development (SPWN)	Shellfish Harvesting (SHELL)	Estuarine Habitat (EST)	Migration of Aquatic Organisms (MIGR)	Marine Habitat (MAR)
Mouth of San Diego River	907.11	●	●			●	●	●	●	●	●	●	●
Famosa Slough and Channel	907.12	●	●	●		●	●	●	●	●	●	●	●
Los Peñasquitos Lagoon	906.10	●	●	●		●	●	●	●	●	●	●	●

SOURCE: San Diego RWQCB 2014.

## b. Impaired Water Bodies

The San Diego RWQCB has identified a variety of physical, chemical, and biological pollutants as providing impairments to receiving water bodies in the study area's watersheds. These impairments are defined within the Clean Water Act in the RWQCB's 303(d) list and updated on a three-year cycle in the 305(b) Integrated Report. The 305(b) Integrated Report lists impairments in five categories ranging from constituents that may be removed from the 303(d) list, or those pollutants that were listed without sufficient documentation or for which water quality has improved to a point that they no longer require rigorous management (Category I), to those for which strict numeric discharge limits are identified in documents known as total maximum daily loads (TMDLs). The 303(d) listed constituents requiring TMDLs are either Category IV or V on the 305(b) Report. A review of the current 305(b) Report on the RWQCB's website indicates watersheds draining from the project area have impairments requiring TMDLs for those pollutants identified in Table 5.8-4.

In 2012, the San Diego RWQCB adopted Resolution No. R9-2012-0033, incorporating the Los Peñasquitos Lagoon Sediment TMDL into the San Diego Basin Plan. The TMDL was approved by the San Diego RWQCB on January 21, 2014, and by the Office of Administrative Law on July 14, 2014. The TMDL requires that suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Table 5.8-4 Receiving Waters With Impairments Requiring TMDLs					
Pollutant	Forester Creek	Murray Reservoir	Poway Creek	Lower San Diego River	Sycamore Canyon
Dissolved Oxygen	X	X		X	
Phosphorous	X			X	
Nitrogen	X	X		X	
Sulfates	X	X			
Selenium	X	X	X		
Total Dissolved Solids	X	X		X	
pH	X	X			
Turbidity	X	X			
Fecal Coliform	X			X	
Escherichia coli		X			
Trichloroethane		X			
Tetrachloroethane		X			
Dichloroethylene (DCE)/Vinylidene Chloride		X			
Trichlorobenzene		X			
Dibromo chloropropane (DBCP)		X			
Dichloroethane		X			
Dichloroethylene,-trans		X			
Alachlor		X			
Aluminum		X			
Ammonia as Nitrogen		X			
Antimony		X			
Arsenic		X			
Atrazine		X			
Barium		X			
Benzene		X			
Benzo(a)pyrene (Benzopyrene)		X			
Carbofuran		X			
Carbon tetrachloride		X			
Chlordane		X			
Chloride		X			X
Chlorobenzene (mono)		X			
Chromium (total)		X			
Color		X			
Copper		X			
Endrin		X			
Ethylbenzene		X			
Fluoride		X			
Glyphosate		X			
Heptachlor		X			
Heptachlor epoxide		X			
Hexachlorobenzene/HCB		X			
Hexachlorocyclopentadiene		X			
Iron		X			
Lindane/gamma Hexachloro-cyclohexane (gamma-HCH)		X			
Manganese		X		X	
Methoxychlor		X			
Molinate		X			
Nickel		X			
Oxamyl (Vydate)		X			
Pentachlorophenol (PCP)		X			

SOURCE: San Diego RWQCB 2014.

### 5.8.2.4 Groundwater

The project is associated with two groundwater basins: the San Diego River Valley Groundwater Basin (River Valley Basin) and the Mission Valley Groundwater Basin (Mission Valley Basin). The Mission Valley Basin is a shallow alluvial aquifer underlying an east-west trending valley that extends from the eastern terminus of Mission Gorge west to San Diego Bay. This basin is bounded by the contacts of alluvium with the semi-permeable San Diego and Poway formations and impermeable Linda Vista Formation.

The River Valley Basin consists of alluvium deposited by the river and its tributaries. This basin is surrounded by contacts with semi-permeable rocks of the Eocene Poway Group, impermeable Cretaceous crystalline rock, and impermeable Jurassic to Cretaceous Santiago Peak volcanic rocks. Within the project area, groundwater elevations are dependent on seasonal precipitation, irrigation, land use and other factors, and as a result, groundwater levels may vary dependent on these conditions.

### 5.8.2.5 Flood Hazards

There are several 100-year floodplains located within the low points of the study area coinciding with drainage areas and water bodies. Within the Lake Murray area, the reservoir and the access road area south to I-8 are within a 100-year floodplain. Areas subject to flooding and mapped as 100-year floodplain include the San Diego River within the drainage of Mission Gorge, Kumeyaay Lake, and the Kumeyaay Lake Campground. Within the Fortuna Mountain area, 100-year floodplains exist near the eastern entrance to the Fortuna Mountain area from Mast Boulevard, at the grasslands area, with fingers of 100-year floodplain heading north through Spring Canyon, Little Sycamore Canyon, and Oak Canyon. Within the East Elliott area, 100-year floodplains are located within the northwest running canyons of Spring Canyon and Little Sycamore Canyon. No FEMA floodplains exist within the Cowles Mountain or West Sycamore areas.

Historically, the San Diego River flowed intermittently west of El Capitan and was characterized by periods of drought and extreme flooding events (Smythe 1908). Currently, with the addition of several dams and additional water inputs from urban runoff and treated wastewater, both within the Park and downstream of the Park, the San Diego River flows year-round and is less prone to flooding except under extreme conditions such as significant rain events. The San Diego River Watershed has a precipitation range of 10.5 to 35 inches (Weston Solutions Inc. 2007).

### 5.8.2.6 Hydrology

The hydrology of the project area is affected by absorption rates, drainage patterns, and the rate of surface runoff. Absorption rate is the time required for pervious ground to absorb rainwater. Drainage patterns are the footprints of travel of unabsorbed water from high elevations to lower elevations. The rate of surface runoff is how quickly unabsorbed water travels within a drainage system to receiving water. Impervious surfaces, such as new paving, prevents percolation of water into the soil, thereby increasing surface runoff rates. Instead of percolating into the soil, water flows to low-lying areas which would result in increased flood risk. Development and disturbance of

natural areas can also increase water pollution, by introducing pollutants that could drain into receiving waters without being filtered through soils.

Hydrology is also affected by topography. The study area ranges in elevation from about 100 feet above mean sea level along the San Diego River to 1,593 feet above mean sea level at the summit of Cowles Mountain. Slopes within the study area vary widely from flat to near vertical, with less than 10 percent of the land area having slopes less than 5 percent and almost 50 percent of the land has slopes steeper than 25 percent grade. Steep canyons, mesas, rolling hills, and flat bottoms in the river and canyon floors typify the area landforms. The central spine of the area extends for about 6 miles from southeast to northwest, with the prominent features being the landforms of Fortuna Mountain, Kwaay Paay, and Cowles Mountain. Lake Murray anchors the south boundary of the Park. The San Diego River, flowing through the precipitous Mission Gorge, cuts perpendicularly through the mountain land mass. A broad alluvial area expands from the north end of the gorge. Nearly all surface water within the Park drains into the San Diego River.

### 5.8.3 Significance Determination Thresholds

Based on the City's 2016 Significance Determination Thresholds, impacts related to hydrology and water quality would be significant if implementation of Plans and associated discretionary actions would:

1. Result in an increase in impervious surfaces and associated increased runoff, or result in substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes;
2. Result in modifications to the natural drainage system;
3. Result in alterations to the course or flow of flood waters; or
4. Create discharges into surface or ground water, or result in increases in pollutant discharges including downstream sedimentation.

### 5.8.4 Impact Analysis

#### Issue 1: Runoff and Drainage Patterns

*Would implementation of the Plans and associated discretionary actions result in an increase in impervious surfaces and associated increased runoff or result in a substantial alteration to on- and off-site drainage patterns due to changes runoff flow rates or volumes?*

According to the City's Significance Determination Thresholds, impacts related to hydrology would be significant if the project would increase the amount of impervious surface, resulting in additional runoff to a point that would change upstream or downstream drainage patterns from the additional flow rate or volume.

Management actions identified in the NRMP, such as hand weeding, erosion control, and exclusionary fencing, would not result in any impervious surfaces, nor would they alter drainage patterns. No impact would occur. The MPU is analyzed below.

Some of the MPU Recommendations intend to improve the hydrology of the Park. For example, Park-wide Management Recommendation 2 states to “develop maintenance guidelines to adapt the existing network of roads within the park to minimize the disruption of the natural hydrology and maintain a walking and riding surface that is conducive to recreational use. These guidelines should identify maintained widths, surface materials, and grading practices for all utility and access roads within the park, and should be acknowledged and agreed to by the City’s Park & Recreation Department, the City PUD, SDCWA, and SDGE.” Another example would be Park-wide Recreation Recommendation 5, which states to “keep trails and crossings within the riparian and drainages to a minimum.”

Other MPU recommendations contemplate subsequent projects such as trails, parking areas, shade structures, benches, and restrooms. For example, recommendation CM-F1 states to “Plan, design and implement an off-street gravel or decomposed granite surfaced parking area with street improvements that comply with public road standards as applicable, at the Barker Way entrance to reduce some of the parking demand on the local residential streets and provide more a formal trailhead and potential for a maintainable comfort station. Ensure that temporary construction impacts associated with parking area improvements do not affect adjacent neighbors and park users.

Implementation of a gravel or decomposed granite parking area would have the potential to reduce water infiltration rates, which could result in significant impacts related to runoff and alteration of drainage patterns. In order to reduce or avoid potential impacts, parking areas and other subsequent projects implemented in accordance with the MPU would be required to maintain the same drainage characteristics in the post-project condition as compared to the pre-project conditions. As outlined in the City’s Storm Water Standards Manual, the overall goal from a hydrological perspective is to ensure the peak flow rate is not significantly increased. If there is a significant increase, subsequent projects would be required to prepare a hydromodification management plan to manage, detain, and attenuate post-project runoff rates and duration to maintain or reduce pre-project downstream erosion conditions and protect stream habitat. This plan would identify the necessary improvements, such as vegetative swales, bioretention, and/or infiltration basins, which would serve to ensure the peak flow rate of the site is not significantly altered.

Furthermore, subsequent projects that have the potential to alter drainage patterns would be required to comply with the relevant sections of the LDC (Section 43.0301, et seq.), which requires that the existing flows of an area proposed for development are maintained to ensure that the existing structures and systems handling the flows are sufficient. Subsequent projects that adhere to this basic objective of the existing drainage regulations would not be expected to result in an increase in runoff. Adherence to the Municipal Storm Water Permit, likewise requires implementation of BMPs during construction of subsequent projects. The requirements of the City’s Drainage Design Manual and Storm Water Standards Manual, which include installation of LID practices such as bioretention areas or pervious pavements, etc. would maintain or improve surface

runoff. Furthermore, subsequent projects implemented in accordance with the MPU that adhere to these requirements would likely reduce the volume and rate of surface runoff compared to the existing condition rather than increase runoff.

The quantity of runoff reduction would depend on the actual design of a future project, including open space and pervious areas, and the manner of implementation of LID practices, adherence to regulations and conformance with existing City regulations. Because the amount and rate of runoff is dependent upon future project design, impacts associated with subsequent projects implemented in accordance with the MPU would be significant (**Impact HYD/WQ-1**).

## Issue 2: Natural Drainage System

*Would implementation of the Plans and associated discretionary actions require modifications to the natural drainage system?*

Criteria in the City of San Diego's 2016 Significance Determination Thresholds for hydrology and water quality state that significant impacts related to altered drainage patterns may result under the following conditions:

- Construction of impervious surfaces (generally one acre or more) adversely affects groundwater recharge capacity in areas utilizing well water;
- A substantial change to stream flow velocities or quantities; and
- Substantial changes in drainage patterns on downstream properties. If these modifications occur there may be significant impacts on environmental resources such as biological communities and archaeological resources; and a determination by a drainage study that the project would result in adverse impacts on downstream properties or environmental resources.

Management actions identified in the NRMP, such as hand weeding, erosion control, and exclusionary fencing, would not result in any impervious surfaces, nor would they alter drainage patterns. No impact would occur. The MPU is analyzed below.

As previously detailed, some subsequent projects implemented in accordance with the MPU have the potential to alter drainage patterns by introducing new impervious surfaces within the park. An increase in impervious surfaces could increase runoff, resulting in increases in stream flow velocity and/or quantity. These changes could alter drainage patterns on downstream properties and adversely affect environmental resources in these downstream areas. In addition, new impervious surfaces could adversely affect groundwater recharge capacity by reducing the area available for rainwater infiltration into the study area soils.

In order to reduce or avoid potential impacts, parking areas and other subsequent projects implemented in accordance with the MPU would be required to maintain the same drainage characteristics in the post-project condition as compared to the pre-project conditions. As outlined in the City's Storm Water Standards Manual, the overall goal from a hydrological perspective is to ensure the peak flow rate is not significantly increased. If there is a significant increase, subsequent

projects would be required to prepare a hydromodification management plan to manage, detain, and attenuate post-project runoff rates and duration to maintain or reduce pre-project downstream erosion conditions and protect stream habitat. This plan would identify the necessary improvements, such as vegetative swales, bioretention, and/or infiltration basins, which would serve to ensure the peak flow rate of the site is not significantly altered.

The volume and velocity of runoff associated with some subsequent projects implemented in accordance with the MPU would depend on the actual design, including the quantity of pervious areas, and the manner of implementation of LID practices, such as detention basins. Because the amount and rate of runoff is dependent upon future project design, subsequent projects implemented in accordance with the MPU would be significant (**Impact HYD/WQ-2**).

Similarly, the specific impacts to infiltration capacity within a groundwater basin would need to be evaluated at a project level as subsequent projects are proposed under the MPU. As the vast majority of the Park would remain in open space and would provide significant capacity for rain water infiltration and groundwater recharge, significant impacts related to groundwater recharge are not anticipated.

### Issue 3: Flow Alteration

*Would implementation of the Plans and associated discretionary actions result in alterations to the course or flow of flood waters?*

Criteria in the City of San Diego's 2016 Significance Determination Thresholds for hydrology and water quality state that significant impacts related to altered flow patterns may result under the following conditions:

- A project-related increase in runoff from the site or would develop within the FEMA 100-year floodplain, resulting in an increase in on- or off-site flooding hazards.

Subsequent projects implemented in accordance with the MPU would have the potential to result in an increase in impervious surfaces and runoff that could increase on- or off-site flooding hazards. In addition, activities within SFHAs and 100-year floodplains could increase flooding hazards.

Within the study area, FEMA-designated 100-year floodplains exist within low-lying areas coinciding with drainage areas and water bodies. In addition, the San Diego River, several creeks, and SFHAs are within the study area.

Subsequent projects implemented in accordance with the MPU would have the potential to impact such areas. Some subsequent projects contemplated by the MPU also include guidelines to manage riparian crossings which could impact flow patterns and potentially result in an increased risk of flooding. For example, Park-wide Facility Recommendations 14 and 15 state, "Maintain and repair park and utility roads and crossings of streams on an as needed basis" and "Construct vehicular on-grade dip crossings of creeks and drainages with local rock to create a stable crossing where practicable. Concrete dip crossings or bridge structures may be required to due to local site conditions." Implementation of these recommendations could result in altered flow patterns and an increase in on- or off-site flooding hazards.

In order to reduce or avoid potential impacts related to flooding, subsequent projects implemented in accordance with the MPU would be required to maintain the same drainage characteristics in the post-project condition as compared to the pre-project conditions. All subsequent projects within the vicinity of a SFHA would be subject to applicable requirements and regulations of FEMA and regulations provided in Chapter 14, Article 3, Division 1 of the LDC.

Because the drainage characteristics and the specific location of each subsequent project is dependent upon future project design, impacts associated with subsequent projects implemented in accordance with the MPU would be significant (**Impact HYD/WQ-3**).

## Issue 4: Water Quality

*Would implementation of the Plans and associated discretionary actions create discharges into surface or ground water, or result in increases in pollutant discharges including downstream sedimentation?*

Criteria in the City of San Diego's 2016 Significance Determination Thresholds for hydrology and water quality state that significant impacts related to erosion and sedimentation may result if the project would:

- Grade, clear, or grub more than one acre of land, especially into slopes over a 25 percent grade and drain into a sensitive water body or stream.
- Result in non-compliance with the City's Water Quality Standards manual and BMP requirements.

Management actions identified in the NRMP, such as hand weeding, erosion control, and exclusionary fencing, would not result in any pollutant discharges or other water quality violations. No impact would occur. The MPU is analyzed below.

Various MPU Recommendations generally intend to improve the water quality of the Park. For example, the installation of trash receptacles and pet-waste stations at trail heads would help to minimize water quality impacts associated with trash, food, and pet waste. Other MPU Recommendations state to revegetate disturbed areas and close unauthorized trails, which would likely result in a reduction in the amount of pollutants and sedimentation traveling to downstream water bodies due to the filtration effects of vegetated areas. MPU Recommendation LM-M6 states, "Continue to maintain the urban runoff diversion channel around the lake and look for opportunities to improve the water quality within the channel before it is discharged downstream of the dam." Other MPU Recommendations would address existing erosion issues and sedimentation with the goal of biological habitat protection.

Other subsequent projects contemplated by the MPU include trail construction, or maintenance and construction of parking areas with gravel or decomposed granite. In addition, new seating, shade structures and other recreational amenities could be constructed. These activities could result in pollutants such as trash and debris, pet waste, and conventional vehicular pollutants, sediments, nutrients, organic compounds, oxygen demanding substances, pesticides, and bacteria and viruses.

These types of subsequent projects may require grading and result in exposed soil, which could result in sedimentation, affecting downstream water quality, particularly where grading and/or land disturbance would occur on slopes over 25 percent grade. For example, the MPU includes multiple conceptual trail alignments. While soil compaction from routine use by hikers would provide stability of the trail soils, some trails may require standard erosion controls (e.g., soil solidifiers) in areas with loose, less-cohesive soils. If trails are located within natural vegetation, the surrounding vegetated lands can act as a vegetative buffer strip to capture potential sedimentation and detain sediments from release within the watershed during runoff generating storm events.

Any parking areas implemented in accordance with the MPU would be required to prepare a project-specific water quality technical report, which is required to describe the BMPs that would be incorporated in a project to mitigate the impacts of runoff on water quality. Priority Development Projects, such as parking areas, are subject to LID design standards, and LID features attempt to mimic predevelopment hydrologic conditions.

Future MPU recommendations would also be subject to the requirements of the City's Storm Water Runoff and Drainage Regulations (Chapter 14, Article 2, Division 2 of the LDC) and other appropriate agencies (e.g., RWQCB).

The runoff and potential pollutant and/or sedimentation load associated with specific future projects would depend on the actual design of a future project, including the topography and slopes in the project area, the quantity of pervious areas, and the manner of implementation of LID practices. Because the amount of runoff and amount and type of pollutants is dependent on the details of the future subsequent project design, site-specific conditions, and the specific BMP and/or LID measures selected, impacts would be significant (**Impact HYD/WQ-4**).

## 5.8.5 Significance of Impacts

### Issue 1: Runoff and Drainage Patterns

Subsequent projects contemplated by the MPU, such as parking areas, would have the potential to increase the amount of impervious surfaces, which could result in additional runoff to a point that would change drainage patterns from the additional flow rate or volume. Therefore, impacts would be significant (**Impact HYD/WQ-1**).

### Issue 2: Natural Drainage System

Subsequent projects contemplated by the MPU, such as parking areas, would have the potential to adversely affect natural drainage patterns. Therefore, impacts would be significant (**Impact HYD/WQ-2**).

### Issue 3: Flow Alteration

Subsequent projects implemented in accordance with the MPU would have the potential to impact FEMA-designated 100-year floodplains, the San Diego River, several creeks, and other SFHAs that are within the study area. Because the drainage characteristics and the specific location of each

subsequent project is dependent upon future project design, impacts associated with subsequent projects implemented in accordance with the MPU would be significant (**Impact HYD/WQ-3**).

## Issue 4: Water Quality

Although various MPU recommendations generally intend to protect water quality, other subsequent projects implemented in accordance with the MPU would have the potential to result in water quality impacts. Because each subsequent project is dependent upon future project design, impacts associated with subsequent projects implemented in accordance with the MPU would be significant (**Impact HYD/WQ-4**), and mitigation is required.

### 5.8.6 Mitigation Framework

Implementation of the following mitigation framework would reduce **Impacts HYD/WQ-1, HYD/WQ-2, and HYD/WQ-3** to below a level of significance:

**MM-HYD/WQ-1:** Prior to approval of subsequent projects implemented in accordance with the MPU that involve impervious surfaces creation, the applicant shall demonstrate to the satisfaction of the City Engineer, that future projects are sited and designed to minimize impacts on absorption rates, drainage patterns, and surface runoff rates and floodwaters in accordance with current City and RWQCB regulations identified below. Future design of projects shall incorporate all applicable and practicable measures outlined below in accordance with the storm water construction requirements of the State Construction General Permit, Order No. 2009-00090DWQ, or subsequent order, and the Municipal Storm Water Permit, Order No. R9-2013-0001, or subsequent order, RWQCB, the City Storm Water Runoff and Drainage Regulations (Chapter 14, Article 2, Division 2 of the LDC), and the LDC, and shall be based on the recommendations of a detailed water quality and hydraulic analysis.

#### a. San Diego RWQCB

- Comply with all NPDES permit(s) requirements, including the development of a storm water pollution prevention plan (SWPPP) if the disturbed soil area is one acre or more, or a Water Quality Control Plan if less than one acre, in accordance with the City's Storm Water Standards.
- If a future project includes in-water work, a Section 404 Permit (from USACE) and a Streambed Alteration Agreement (from CDFW) shall be required.
- Comply with the San Diego RWQCB water quality objectives and bacteria TMDL and Los Peñasquitos Lagoon Sediment TMDL.

**b. City of San Diego**

To prevent flooding, subsequent projects implemented in accordance with the MPU shall be designed to incorporate any applicable measures from the City of San Diego LDC, ESL Regulations (Ch. 14, Art. 03, Div. 01, Sec. 193.0145 and 193.0146). Flood control measures that shall be incorporated into future projects within a SFHA, or within a 100-year floodway, include but are not limited to the following:

- Prior to issuance of building permits or approval of any project within or in the vicinity of a floodway or SFHA, all proposed development within a SFHA is subject to the following requirements and all other applicable requirements and regulations of FEMA and those provided in Chapter 14, Article 3, Division 1 of the LDC.
- In all floodways, any encroachment, including fill, new construction, significant modifications, and other development, is prohibited unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge except as allowed under Code of Federal Regulations Title 44, Chapter 1, Part 60.3(c) (13).
- If the engineering analysis shows that development will alter the floodway or floodplain boundaries of the SFHA, a Conditional Letter of Map Revision from FEMA shall be obtained.
- Fill placed in the SFHA for the purpose of creating a building pad shall be compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test Fill method issued by the American Society for Testing and Materials. Granular fill slopes shall have adequate protection for a minimum flood water velocity of five feet per second.
- Improvement plans shall note "Subject to Inundation" for all areas lower than the base elevation plus two feet.
- If structures will be elevated on fill such that the lowest adjacent grade is at or above the base flood elevation, a Letter of Map Revision based on Fill (LOMR-F) must be obtained prior to occupancy. The developer or applicant shall provide all documentation, engineering calculations, and fees required by FEMA to process and approve the LOMR-F.
- In accordance with Chapter 14, Article 3, Division 1 of the LDC channelization or other substantial alteration of rivers or streams shall be limited to essential public service projects, flood control projects, or projects where the primary function is the improvement of fish and

wildlife habitat. The channel shall be designed to ensure that the following occur:

- Stream scour is minimized.
- Erosion protection is provided.
- Water flow velocities are maintained as specified by the City Engineer.
- There are neither significant increases nor contributions to downstream bank erosion and sedimentation of sensitive biological resources; acceptable techniques to control stream sediment include planting riparian vegetation in and near the stream and detention or retention basins.
- Wildlife habitat and corridors are maintained.
- Groundwater recharge capability is maintained or improved.
- Within the flood fringe of a SFHA or floodway, permanent structures and fill for permanent structures, roads, and other development are allowed only if the following conditions are met:
  - The development or fill shall not significantly adversely affect existing sensitive biological resources on-site or off site.
  - The development is capable of withstanding flooding and does not require or cause the construction of off-site flood protective works including artificial flood channels, revetments, and levees nor shall it cause adverse impacts related to flooding of properties located upstream or downstream, nor shall it increase or expand a FIRM Zone A.
  - Grading and filling are limited to the minimum amount necessary to accommodate the proposed development, harm to the environmental values of the floodplain is minimized including peak flow storage capacity, and wetlands hydrology is maintained.
  - The development neither significantly increases nor contributes to downstream bank erosion and sedimentation nor causes an increase in flood flow velocities or volume.
  - There shall be no significant adverse water quality impacts to downstream wetlands, lagoons, or other sensitive biological resources, and the development is in compliance with the requirements and regulations of the NPDES as implemented by the City of San Diego.

The following Mitigation Framework would reduce **Impact HYD/WQ-4** to below a level of significance:

**MM-HYD/WQ-2:** Subsequent projects implemented in accordance with the MPU shall identify site-specific measures that reduce significant project-level water quality impacts to less than significant levels in accordance with the existing regulatory framework addressing drainage, storm water, and protection of water quality. Where mitigation is determined to be necessary and feasible, measures shall be included in an MMRP for the project.

The following general measures would be implemented for future projects within the scope of the Plans. These measures would be updated, expanded, or refined when applied to specific future projects based on project-specific design and changes in existing conditions in order to demonstrate compliance with local, state, and federal laws in place at the time future projects are proposed.

Future projects shall be sited and designed to minimize impacts on receiving waters, in particular the discharge of identified pollutants to an already impaired water body. Prior to approval of any entitlements for any future project, the City shall require measures to ensure that impacts to receiving waters are fully mitigated in accordance with the requirements of the City's Storm Water Runoff and Drainage Regulations (Chapter 14, Article 2, Division 2 of the LDC) and other appropriate agencies (e.g., RWQCB). To prevent erosion, siltation, and transport of urban pollutants, all future projects shall be designed to incorporate any applicable storm water improvement, both off- and on-site, in accordance with the City of San Diego Storm Water Standards Manual.

Storm water improvements and water quality protection measures that shall be required for future projects include:

- Increasing on-site filtration;
- Preserving, restoring, or incorporating natural drainage systems into site design;
- Directing concentrated flows away from MHPA and open space areas. If not possible, drainage shall be directed into sediment basins, grassy swales, or mechanical trapping devices prior to draining into the MHPA or open space areas;
- Reducing the amount of impervious surfaces through selection of materials, site planning, and narrowing of street widths where possible;
- Increasing the use of vegetation in drainage design;

- Maintaining landscape design standards that minimize the use of pesticides and herbicides; and
- To the extent practicable, avoiding development of areas particularly susceptible to erosion and sediment loss.

#### **San Diego RWQCB**

- The requirements of the RWQCB for storm water quality are addressed by the City in accordance with the City NPDES requirements and the participation in the regional permit with the RWQCB.
- Prior to permit approval, the City shall ensure any impacts on receiving waters are precluded or mitigated in accordance with the City of San Diego Storm Water Regulations.
- In accordance with the City of San Diego Storm Water Standards Manual, development shall be designed to incorporate on-site storm water improvements satisfactory to the City Engineer and shall be based on the adequacy of downstream storm water conveyance.

### **5.8.7 Significance after Mitigation**

#### **Issues 1 through 3: Runoff, Drainage, Flow Alteration**

Potentially significant impacts related to runoff and drainage patterns, drainage systems, and flow alteration would be reduced to less than significant through implementation of the Mitigation Framework MM-HYD/WQ-1, detailed above. Compliance with this framework would ensure future projects implemented in accordance with the Plans and associated discretionary actions would be required to comply to the existing regulatory framework addressing drainage, runoff, and flooding. With implementation of the mitigation framework described in MM-HYD/WQ-1, impacts would be reduced to below a level of significance.

#### **Issue 4: Water Quality**

Subsequent projects implemented in accordance with the MPU would be required to implement the Mitigation Framework described in MM-HYD/WQ-2. Compliance with the Mitigation Framework would reduce potential water quality impacts to below a level of significance.

## 5.9 Geology and Soils

This section addresses the potential impacts related to geology and soils that could result from implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). It also identifies existing regulations applicable to subsequent projects, as well as geologic formations, soils, and potential geological hazards. It is based on the geotechnical study prepared for the Project (Appendix F-1), a Supplemental Geologic Hazard Analysis for Rockfall Potential (Appendix F-2), and secondary source information, such as the City of San Diego's (City's) Seismic Safety Study.

### 5.9.1 Regulatory Framework

#### 5.9.1.1 State

##### a. Alquist-Priolo Earthquake Fault Zoning Act

The State of California Alquist-Priolo Earthquake Fault Zoning Act (1972) was established to mitigate the hazard of surface faulting to structures for human occupancy. Pursuant to the act, the State Geologist has established regulatory zones (known as earthquake fault zones) around surface traces of active faults. These have been mapped for affected cities, including San Diego. A detailed geologic investigation must be prepared prior to receiving a permit in an area extending between 200 and 500 feet on both sides of known potentially and recently active earthquake fault zone traces.

##### b. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was passed by the state in 1990 and contains seismic safety standards. The act includes non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. There are no seismic hazard maps that have been completed by the state for the County of San Diego.

##### c. California Building Code

The California Building Code (CBC) is included in California Code of Regulations (CCR) Title 24, and is a portion of the California Building Standards Code. State law requires that all building standards must be based on Title 24. The CBC incorporates the International Building Code (IBC), a widely adopted model building code used nationally. Many standards in the CBC have adopted and adapted elements of the IBC. Also included are other necessary California amendments, including criteria for seismic design, that address California's unique conditions.

## 5.9.1.2 Local

### a. Seismic Safety Study

The City's Seismic Safety Study is a series of maps indicating likely geologic hazards throughout the City. The maps do not provide site-specific information; they are used as a guide to determine relative risk. The study identifies areas prone to liquefaction and earthquake-induced landslides as a Zones of Required Investigation, which require a report of the geotechnical condition prior to obtaining a permit. The level of geotechnical analysis required for project review is dependent on the type of permit being sought (e.g., land planning, land development, and/or building); the geological hazard category; the building type/land use group; and the relative risk.

### b. San Diego Municipal Code - Land Development Code

The Land Development Code (LDC) regulates development on steep hillsides and includes requirements for foundations and preparation of soils and geologic reports within the City. Development that proposes encroachment into a steep hillside must comply with the Steep Hillside Guidelines in the City's Land Development Manual, factoring in various local conditions. The Structural Survey and Engineering Report, when required, evaluates a structure's ability to resist forces imposed by an earthquake and prevent structural failure.

The LDC also requires submittal, review, and approval of site-specific geotechnical investigations when required by Section 1803.2 of the CBC, Section 145.1803 (d) of the San Diego Municipal Code (SDMC), or the Building Official, for all new structures, additions to existing structures not exempted by SDMC Section 145.1803(b), or whenever the occupancy classification of a building changes to a higher relative hazard category, consistent with the requirements of Section 145.1803 of the SDMC. SDMC Section 142.0146 requires all grading work to incorporate erosion and siltation control measures in accordance with Chapter 14, Article 2, Division 4 (Landscape Regulations) and the standards established in the Land Development Manual. The regulations prohibit sediment and pollutants from leaving the work site and requires the property owner to implement and maintain temporary and permanent erosion, sedimentation, and water pollution control measures.

### c. City of San Diego General Plan Policies

The City's General Plan presents goals and policies for geologic and soil safety in the Public Facilities, Services, and Safety Element. Specifically, Policy PF-Q.1 states the following:

Protect public health and safety through the application of effective seismic, geologic and structural considerations.

- a. Ensure that current and future community planning and other specific land use planning studies continue to include consideration of seismic and other geologic hazards. This information should be disclosed, when applicable, in the California Environmental Quality Act (CEQA) document accompanying a discretionary action.

- b. Maintain updated Citywide maps showing faults, geologic hazards, and land use capabilities, and related studies used to determine suitable land uses.
- c. Require the submission of geologic and seismic reports, as well as soils engineering reports, in relation to applications for land development permits whenever seismic or geologic problems are suspected.
- d. Utilize the findings of a beach and bluff erosion survey to determine the appropriate rate and amount of coastline modification permissible in the City.
- e. Coordinate with other jurisdictions to establish and maintain a geologic “data bank” for the San Diego area.
- f. Regularly review local lifeline utility systems to ascertain their vulnerability to disruption caused by seismic or geologic hazards and implement measures to reduce any vulnerability.
- g. Adhere to state laws pertaining to seismic and geologic hazards.

## 5.9.2 Environmental Setting

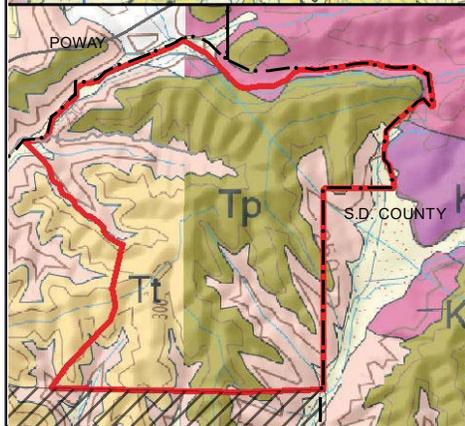
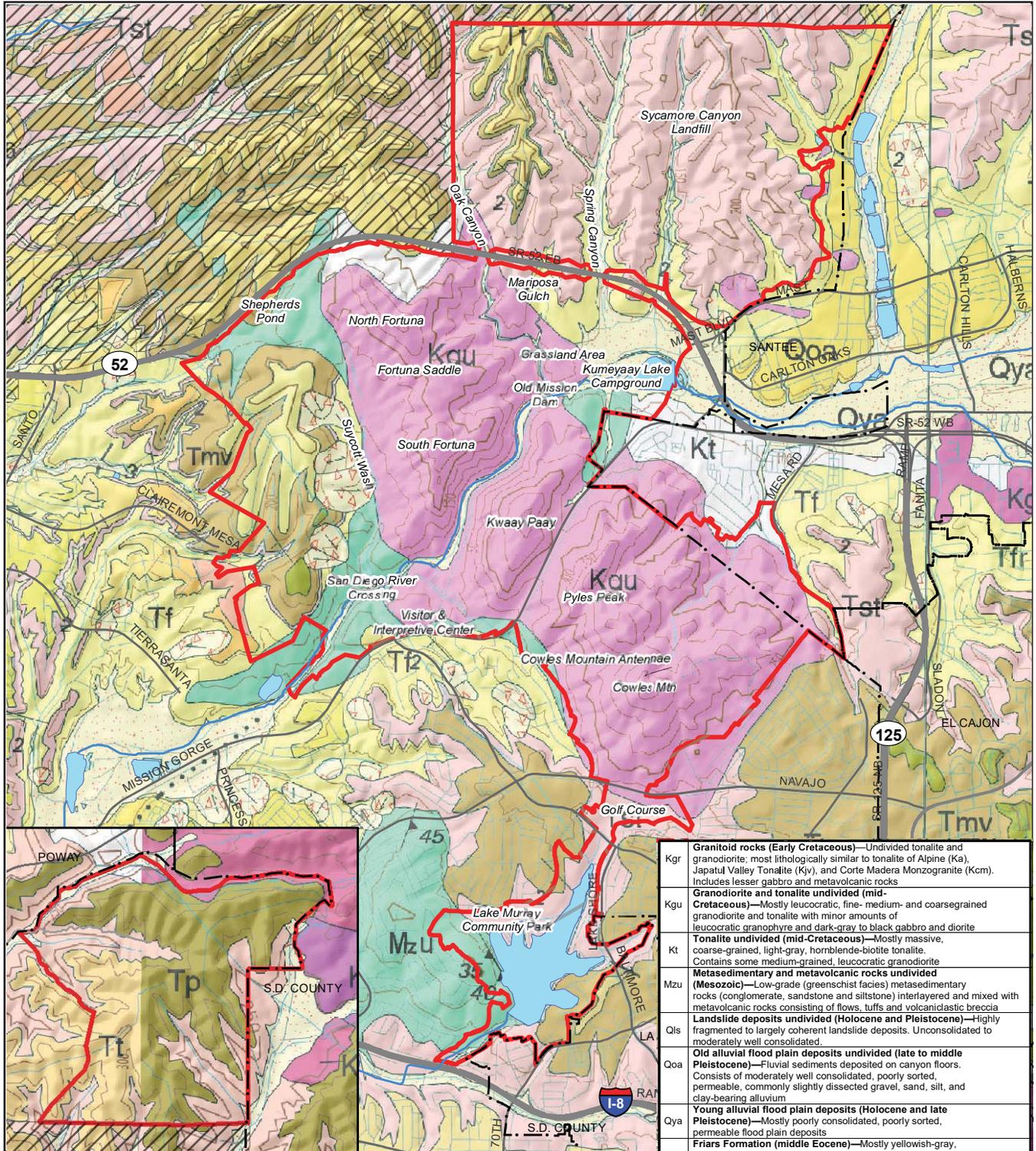
### 5.9.2.1 Regional Geologic Setting

Topographically, the region of San Diego County in which the study area is located is characterized by elevated terraces (mesas) punctuated by intervening river valleys, which includes the San Diego River Valley that extends in a northeast to southwest direction north of Mission Gorge Road through the center of the park. The topography is generally very rugged, with elevations ranging dramatically throughout the different areas, from approximately 100 feet above mean sea level along the San Diego River to 1,593 feet above mean sea level at the summit of Cowles Mountain. The Park contains a variety of topographic features, including canyons, valleys, mountains, hills, and low-lying areas. Approximately 40 percent of the study area has slopes between 5–25 percent, and another 40 percent between 25–50 percent. A little more than 10 percent of the study area has slopes steeper than 50 percent.

Geologically, this area consists of a layer cake sequence of Cenozoic sedimentary rock units which preserve portions of the last 47 million years of Earth history. These Cenozoic sedimentary rocks overlie a deeply eroded terrain formed in significantly older crystalline basement rocks (e.g., metavolcanics and granites) of the massive Peninsular Ranges Batholith. The oldest sedimentary rocks exposed in the study area date from the Eocene Epoch and include the Friars Formation, Stadium Conglomerate, Mission Valley Formation, and Pomerado Conglomerate. In two small areas along the western edge of the park boundaries, the Eocene strata are overlain by Pleistocene-age Very Old Paralic Deposits formerly known as the Lindavista Formation. These are further overlain by much younger Pleistocene and Holocene-age deposits in river valleys and areas of recent landslides west of North and South Fortuna Mountains.

### 5.9.2.2 Geologic Formations

Figure 5.9-1 provides the geographic distribution of the geology within the study area. A brief description of the dominant geological formations within the study area is provided below.



Kgr	<b>Granitoid rocks (Early Cretaceous)</b> —Undivided tonalite and granodiorite, most lithologically similar to tonalite of Alpine (Ka), Japatal Valley Tonalite (Ky), and Corte Madera Monzogranite (Kcm). Includes lesser gabbro and metavolcanic rocks
Kgu	<b>Granodiorite and tonalite undivided (mid-Cretaceous)</b> —Mostly leucocratic, fine- to medium- and coarse-grained granodiorite and tonalite with minor amounts of leucocratic granophyre and dark-gray to black gabbro and diorite
Kt	<b>Tonalite undivided (mid-Cretaceous)</b> —Mostly massive, coarse-grained, light-gray, hornblende-biotite tonalite. Contains some medium-grained, leucocratic granodiorite
Mzu	<b>Metasedimentary and metavolcanic rocks undivided (Mesozoic)</b> —Low-grade (greenschist facies) metasedimentary rocks (conglomerate, sandstone and siltstone) interlayered and mixed with metavolcanic rocks consisting of flows, tuffs and volcanoclastic breccia
Qls	<b>Landslide deposits undivided (Holocene and Pleistocene)</b> —Highly fragmented to largely coherent landslide deposits. Unconsolidated to moderately well consolidated.
Qoa	<b>Old alluvial flood plain deposits undivided (late to middle Pleistocene)</b> —Fluvial sediments deposited on canyon floors. Consists of moderately well consolidated, poorly sorted, permeable, commonly slightly dissected gravel, sand, silt, and clay-bearing alluvium
Qya	<b>Young alluvial flood plain deposits (Holocene and late Pleistocene)</b> —Mostly poorly consolidated, poorly sorted, permeable flood plain deposits
Tf	<b>Friars Formation (middle Eocene)</b> —Mostly yellowish-gray, medium-grained, massive, poorly indurated nonmarine and lagoonal sandstone and claystone with tongues of cobble conglomerate.
Tmv	<b>Mission Valley Formation (middle Eocene)</b> —Predominantly light-olive-gray, soft and friable, fine- to medium- grained marine and nonmarine sandstone containing cobble conglomerate tongues.
Tp	<b>Pomerado Conglomerate (Eocene)</b> —Massive cobble conglomerate. Uppermost unit of Poway Group; maximum thickness is 55 m. Contains sparse beds and lenses of light-brown sandstone
Tst	<b>Stadium Conglomerate (middle Eocene)</b> —Massive cobble conglomerate with a dark yellowish-brown, coarse-grained sandstone matrix. The formation consists predominantly (up to 85%) of slightly metamorphosed rhyolitic to dacitic volcanic and volcanoclastic rocks and up to 20% percent quartzite.
Tt	<b>Torrey Sandstone (middle Eocene)</b> —White to light-brown, medium- to coarse-grained, moderately well indurated, massive and broadly cross-bedded, arkosic sandstone.

**Legend**

- Municipal Boundaries
- MTRP Boundary and Expansion Areas
- MCAS Miramar



**FIGURE 5.9-1**  
Geology

### **a. Undivided Granodiorite and Tonalite (Kgu)**

These Cretaceous-age igneous rocks consist of mostly fine-, medium-, and coarse grained diorites and tonalites, although a few dark gray to black gabbros are encountered in some areas. The undivided granodiorites and tonalites make up most of the rock exposures in study area south of State Route 52 (SR-52), including the peaks of North and South Fortuna Mountains, Kwaay Paay, Pyles Peak, and Cowles Mountain. Other isolated pockets of undivided granodiorite and tonalite crop out along the eastern edge of the park to the north of SR-52.

### **b. Stadium Conglomerate (Tst)**

The Stadium Conglomerate is a massive cobble conglomerate with a dark-yellowish brown, coarse-grained sandstone matrix. Rocks of the Stadium Conglomerate were deposited within the San Diego embayment by a westward-flowing river system and consist of a massive cobble conglomerate with a dark yellowish-brown coarse-grained sandstone matrix. The Stadium Conglomerate has a limited area of exposure west of Fortuna Mountain and south of SR-52. More extensive outcrops of the Stadium Conglomerate occur along the northern shore of Lake Murray.

### **c. Undivided Metasedimentary and Metavolcanic Rocks (Mzu)**

This formation consists of late Jurassic to early Cretaceous age metasedimentary rocks interlayered and mixed with metavolcanic rocks. Outcrops of the metasedimentary and metavolcanic rocks occur along the western foothills of the North and South Fortuna Mountains and along the north side of Mission Gorge Road, west of Golfcrest Drive. Additional pockets of these crystalline rocks crop out along the southwestern borders of Kumeyaay Lake in the east central region of the Park, and along the southwestern edge of Lake Murray in the south.

### **d. Pomerado Conglomerate (Tp)**

The Pomerado Conglomerate is a massive cobble conglomerate with a dark-yellowish brown, coarse-grained sandstone matrix. This formation is approximately 40 million years old (Middle to Late Eocene). The Pomerado Conglomerate crops out at the highest elevations along the rim trails in the western third of the study area as well as the highest elevations in the West Sycamore area.

### **e. Friars Formation (Tf)**

The Friars Formation consists of mid-Eocene aged non-marine and lagoonal sandstones, siltstone, mudstones, and cobble conglomerate. Rocks of this formation are generally moderately hard, weak to moderately consolidated, and fresh to slightly weathered. The Friars Formation is exposed at lower elevations across the study area, particularly in the valleys and immediately west of Fortuna Mountain. The formation is also found on both sides of SR-52, along the north side of Mission Gorge Road and is exposed in the West Sycamore area.

## **f. Other Formations**

Smaller instances of geological formations occur throughout the study area. As shown in Figure 5.9-1, these include Cuyamaca gabbro (Kc), undivided hypabyssal rocks (Kgh), granitoid rocks (Kgr), undivided tonalites (kt), Mission Valley formation (Tmv), Lindavista formation (Glv), undivided old alluvial flood plain deposits (qoa), young alluvial flood plain deposits (qya), and undivided landslide deposits (Qls).

### **5.9.2.3 Soils**

The Mesozoic era geology within the Lake Murray, Cowles Mountain, Mission Gorge, and Fortuna Mountain areas has weathered into four primary soil series: acid igneous rock; metamorphic rock; Cieneba rocky coarse sandy loams; and Friant rocky fine sandy loam. Specific soil types within the Park are shown on Figure 5.9-2. The south and west facing slopes of Cowles Mountain, the west side of Pyles Peak, south side of Kwaay Paay, and east face of South Fortuna Mountain are acid igneous rock or metamorphic rock where 50-90 percent of the surface is dominated by large boulders and rock outcrops. Cieneba soils occur on the north slope of Cowles Mountain and the western slope of Fortuna ridgeline and are characterized as shallow, moderate to rapid permeability, medium to very rapid runoff, and moderate to very high erosion hazard.

Friant soils occur on the west side of Lake Murray, south of the river and west of the Visitor Center, on the north slope of Kwaay Paay, and the northern and eastern slopes of North and South Fortuna Mountain. Friant soils are characterized as shallow, moderate to rapid permeability, rapid to very rapid runoff, and moderate to very high erosion hazard. Diablo clays and Tujung sands dominate the area around Lake Murray. Diablo clays and Redding cobbly loams dominate Suycott Wash and the western edge of the park. Diablo soils are characterized as moderately deep to deep, slow permeability, medium to rapid runoff, and slight to high erosion hazard. Redding soils are characterized as shallow, slow permeability, medium to rapid runoff, and slight to high erosion hazard. The soils within the East Elliott and West Sycamore areas are uniformly Redding gravelly loams.

Undocumented fill occurs throughout several areas within the Park. Fill is unsuitable for support of structural fill or settlement-sensitive structures. Where placed on slopes, undocumented fills are subject to downslope movement (creep, sliding or shallow debris flows). The undocumented fill soil would be suitable for reuse as compacted fill provided deleterious material including construction debris, vegetation, and trash is removed.

### **5.9.2.4 Geologic Hazards**

#### **a. Faulting**

The study area is located in a seismically active area, as is most of southern California. The San Diego region is within a tectonic province bounded by the Elsinore Fault Zone to the east and the San Clemente Fault Zone to the west. Most of these faults run in a northwest-southeast direction and are the product of crustal stresses associated with movement of the Pacific and North American lithospheric plates. An active fault is one that has had surface displacement within the Holocene

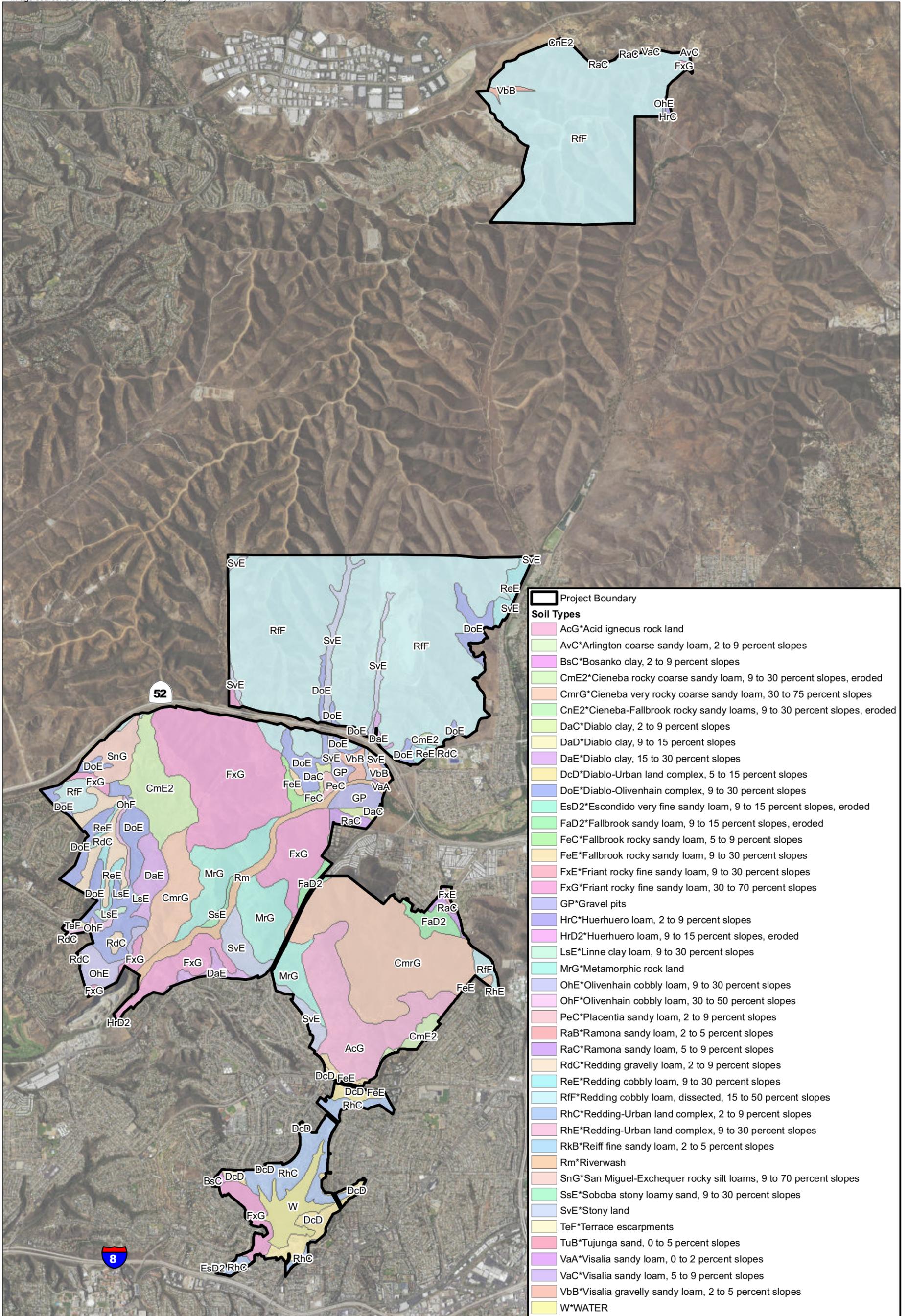


FIGURE 5.9-2  
Soil Types Present within Mission Trails Regional Park

time. A potentially active fault is any fault considered to have been active during Quaternary time. The study area is within a potentially active fault zone known as the La Nación Fault Zone. The La Nación Fault Zone system is a series of moderate- to high-angle normal faults striking north roughly parallel to the coast line. This fault zone extends from the Mission Gorge area of Mission Valley south to the Mexican border.

Six active faults are located within a 50-mile radius of the study area. The Newport-Inglewood/Rose Canyon Fault Zone, located approximately 9 miles west of the study area, would be the dominant source of potential ground motion within the study area. Other active faults within a 50-mile radius include Coronado Bank, Palos Verdes Connected, Elsinore, and Earthquake Valley faults. Potential earthquake magnitude within the study area as a result of these off-site faults that experience a maximum estimated seismic event between 6.8 to 7.9 magnitude. The study area would be subject to moderate to severe ground shaking in the event of a major earthquake on the Newport-Inglewood/Rose Canyon Fault Zone or any other active faults in southern California.

## **b. Liquefaction Potential**

Seismically induced soil liquefaction is a phenomenon in which loose, saturated, granular materials develop high pore-water pressures and lose strength. In that case, the materials may act as fluids under the stress of ground shaking, magnifying the ground-shaking effects. Typically, loose fine-grained sands and silts below the water table are most susceptible to this process. Potentially liquefiable deposits typically exist in deep alluvium areas. The San Diego River runs through a portion of the study area, which is underlain by saturated or semi-saturated alluvial and/or slope wash deposits that may be subject to liquefaction and seismic settlement during moderate to large earthquake events.

## **c. Landslides**

Landslides are caused by both natural events such as earthquakes, rainfall and erosion and human activities such as grading and filling. Several existing landslides are present along Father Junipero Serra Trail within the Park. These deposits usually involve soil and slope wash deposits on steep slopes underlain by weathered bedrock. Other landslides involving the Friars Formation have occurred in recent years on slopes south of Mission Gorge Road. Other types of slope instability present in the study area include rockfalls, rock block failures, and debris flow. Rockfalls can occur wherever boulders or rock outcrops are exposed on steep slopes or cliffs. Old landslides and landslide-prone formations are the principal non-seismic geologic hazard within the City (City of San Diego 2008e). Conditions to be considered in regard to slope instability include inclination, characteristics of the soil and rock orientation of the bedding, and the presence of groundwater.

## **d. Tsunamis and Seiches**

The study area is not located near the ocean or downstream of any large bodies of water. Therefore, the risk associated with inundation by tsunamis or seiches is low.

### 5.9.3 Significance Determination Thresholds

Based on the City's 2016 Significance Determination Thresholds, impacts related to geology and soils would be significant if implementation of the Plans and associated discretionary actions would:

1. Expose people or property to geologic hazards such as earthquakes, landslides, mudslides, liquefaction, ground failure, or similar hazards; or
2. Increase the potential for erosion of soils on- or off-site.

### 5.9.4 Impact Analysis

#### Issue 1: Geologic Hazards

*Would implementation of the Plans and associated discretionary actions expose people or property to geologic hazards such as earthquakes, landslides, mudslides, liquefaction, ground failure, or similar hazards?*

The NRMP would have no impact in relation to exposing people or property to geological hazards, as it specifies management actions related to the protection of sensitive biological resources. The MPU is analyzed below.

Based on a review of the City's Seismic Safety Study, a majority of the study area is located in a low to moderate relative risk area for geotechnical hazards. The southern portion of the study area around the Lake Murray area is located within a nominal to low geotechnical and relative risk area. Small, scattered areas within the Fortuna Mountain, Mission Gorge, and East Elliott areas have a moderate to high relative risk.

Unstable geologic conditions found throughout the study area may expose people to hazards if they are not properly remediated. Soil and geologic conditions that would impact the study area may include:

- Ground-shaking effects associated with earthquakes from the Newport-Inglewood/Rose Canyon Fault Zone and other active fault zones;
- Liquefaction in areas in proximity to the river that are underlain by saturated or semi-saturated alluvial and/or slope wash deposits; and
- Landslides, mudslides, or ground failure within landslide-prone formations such as Friars Formation, and steep canyon slopes;
- Rockfall hazards.

Potential impacts associated with each of these issues are described below. There would be no impact related to tsunamis and seiches as the study area is not near the ocean or downstream of any large bodies of water.

## **a. Ground Failure and Liquefaction**

Southern California is one of the most seismically active regions in the United States. The source of most earthquakes felt in the San Diego region is from Imperial Valley and offshore fault systems. Faults within the immediate area include the La Nación Fault Zone and the Rose Canyon Fault Zone. Faults in this zone are considered to be potentially active and active, respectively, and would subject the study area to moderate to severe ground shaking. Liquefaction and ground failure is typically associated with seismic activity. Portions of the study area may be susceptible to liquefaction and ground failure, such as areas proximate to the San Diego River that are underlain by saturated or semi-saturated alluvial and/or slope wash deposits.

Subsequent projects implemented under the MPU would not expose people to seismic hazards because it would not create new habitable structures (i.e., residential development). However, seismic events within local fault zones have the potential to damage other improvements recommended within the MPU such as trails, picnic areas, and other facilities.

For example, MPU Recommendation F1 for the West Sycamore area (see Figure 3-8) states to "Provide a restroom, ranger office, hitching posts, shade structure, and picnic tables at the West Sycamore staging area." Recommendation F2 for the East Elliott area states to "Consider providing fire resistant shade structures consistent with the Design Guidelines (Appendix G) at key locations within the East Elliott area where appropriate." Implementation of these subsequent projects would result in new structures that could be damaged in the event of a seismic event. Damage could result from ground shaking, liquefaction, or ground failure depending on the underlying geological conditions. However, compliance with the CBC reduces these potential hazards to an acceptable level of risk. The regulations that would apply to construction of structures within the Park that would be implemented at the project level are described below.

The requirements for a preliminary geotechnical investigation report are contained in SDMC Section 145.1803 and Information Bulletin 515. These requirements are based on a combination of site attributes; building, structure, or facility class; and storm water standards. Site attributes may include presence of environmentally sensitive lands, site gradient, and geologic hazard category of the site as shown on the "City of San Diego Seismic Safety Study, Geologic Hazards and Faults" maps. If a required report identifies geologic or geotechnical hazards, the reports must provide recommendations to reduce the hazards to an acceptable level and the recommendations must be incorporated into the project design.

With adherence to the SDMC and the CBC, impacts related to ground failure and liquefaction would be reduced to an acceptable level of risk, which is considered less than significant.

## **b. Landslides and Mudslides**

Subsequent projects contemplated by the MPU such as new trail alignments may require ground-disturbing activities within landslide susceptible formations. Additionally, continued use of eroding trails by trail users could exacerbate landslide susceptibility. Landslides involving the Friars Formation have occurred in recent years on slopes south of Mission Gorge Road. Quaternary age landslide deposits also occur on the eastern slopes of the ridges west of the Fortuna Mountain and

adjacent to the river on the western portion of the property, northwest of the Visitor's Center. However, various MPU recommendations would aim to minimize landslide susceptibility by stabilizing and/or closing existing unauthorized trails. For example, MPU Recommendations FM-R34 and FM-R35 recommend closing and restoring old utility access roads that are no longer used, extremely steep, and eroding. These MPU recommendations would generally serve to reduce Park user encroachment into landslide susceptible areas by closing and restoring steep and eroding trails.

For example, as discussed in the MPU, recommendations pertaining to trails are in one of three categories: closures, reroutes, and new construction. Trail closures are primarily where the existing system is redundant or has been created through unauthorized construction activities. Potential trail reroutes are identified where the existing trail is very steep, showing signs of erosion, or too close to sensitive species or habitats. Overall, trail closures and reroutes would generally reduce potential ground disturbance in potentially landslide susceptible areas and result in ground stabilization compared to the existing condition. Construction of new trails is also proposed in some areas; however, consistent with the MPU Recreation Recommendation #1, all trails would be required to comply with the City's current Trail Policies and Standards per the current City of San Diego Consultants Guide to Park Design and Development for all new and rerouted trails and would utilize other state and national sustainable trail guidelines as supplements to the City's Standards. Future trail construction would also require a subsequent environmental review before they could be fully implemented. Thus, with implementation of the MPU recommendations, trail siting guidelines, and requirement for future environmental review for construction of trails, impacts related to landslides associated with new trail construction would be less than significant.

### **c. Rockfall**

Rockfall can occur wherever boulders or rock outcrops are exposed on steep slopes or cliffs. These hazards currently exist in the Park; however, the introduction of additional recreational facilities contemplated by the MPU in new areas within the Park could expose people to rockfall hazards. For example, Recommendation FM-R10 for the Fortuna Mountain area (see Figure 3-7a) states to "Provide rock climbing access to the eastern face of South Fortuna by constructing a new hiking loop trail from the existing South Fortuna trail. Planning and design of this trail will need to address proximity to bat/raptor roosts, safety concerns relative to falling rocks, and emergency response concerns that include improvements to vehicular access to the area and/or the designation of a helicopter landing area." However, as discussed above, all new trails would require a subsequent environmental review before they could be fully implemented. This review would ensure any potential geologic hazards, including potential rockfall hazards, are avoided by appropriate trail siting. Future trails would be required to comply with the City's current Trail Policies and Standards per the current City of San Diego Consultants Guide to Park Design and Development and would utilize other state and national sustainable trail guidelines as supplements to the City's Standards (MPU Recreation Recommendation #1). Thus, with implementation of the MPU recommendations, trail siting guidelines, and requirement for future environmental review for construction of trails, impacts related to rockfall would be less than significant.

## Issue 2: Erosion

*Would implementation of the Plans and associated discretionary actions increase the potential for erosion of soils on- or off-site?*

Implementation of the NRMP would not result in erosion on- or off-site as it specifies management actions related to the protection of sensitive biological resources and any ground disturbance would be managed consistent with NRMP and MPU recommendations to prevent erosion, as discussed below. Soils throughout the study area are susceptible to erosion. Highly erosive Cieneba soils occur on the north slope of Cowles Mountain and the western slope of Fortuna ridgeline. Friant soils with a moderate to high erosion hazard occur on the west side of Lake Murray, south of the river and west of the visitor center, on the north slope of Kwaay Paay, and the northern and eastern slopes of North and South Fortuna Mountain.

There are numerous existing trails located on steep, eroding slopes that are contributing to existing erosion issues within the study area. Various MPU recommendations are intended to improve these issues. For example, MPU Recommendation FM-R7 states: "Assess a section of hike/bike trail for localized improvements to address steepness and erosion issues, and potential conflicts with San Diego thornmint habitat. Reroute this section of trail if localized improvements are inadequate or infeasible. Install wildlife compatible fencing and signage adjacent to the existing and potential San Diego thornmint habitat." MPU Recommendation FM-R20 states: "Close and restore sections of redundant park access road, steep and eroding access road, and existing hike/bike trails within Shepherd Canyon." Additionally, Recommendations FM-R34 and FM-R35, discussed above, and several other recommendations would address erosion issues.

While these recommendations generally intend to improve erosion in the study area, other subsequent projects implemented in accordance with the MPU such as construction of new trails and associated amenities could result in soil erosion and loss of topsoil. These and other potential subsequent projects that require ground disturbance would have the potential to disturb soils and increase the potential for erosion. Additionally, minimal grading activity may be required to construct the proposed parking areas, which would have the potential to disrupt soil profiles, resulting in an increased exposure of soils to wind and rain, which are erosive forces.

As discussed in the MPU, recommendations pertaining to trails are in one of three categories: closures, reroutes, and new construction. Trail closures are primarily where the existing system is redundant or has been created through unauthorized construction activities. Potential trail reroutes are identified where the existing trail is very steep, showing signs of erosion, or too close to sensitive species or habitats. Overall, trail closures and reroutes would generally reduce potential ground disturbance and erosion and result in ground stabilization compared to the existing condition. Construction of new trails is also proposed in some areas; however, consistent with the MPU Recreation Recommendation #1, all trails would be required to comply with the City's current Trail Policies and Standards per the current City of San Diego Consultants Guide to Park Design and Development for all new and rerouted trails and would utilize other state and national sustainable trail guidelines as supplements to the City's Standards.

Future trail construction would also require a subsequent environmental review before they could be fully implemented and would be subject to compliance with requirements in the SDMC that require erosion control measures to be implemented during grading and development.

All subsequent projects implemented in accordance with the MPU would be required to adhere to the Grading Regulations and National Pollutant Discharge Elimination System (NPDES) permit requirements which would avoid potentially significant erosion impacts. SDMC Section 142.0146 requires all grading work to incorporate erosion and siltation control measures in accordance with Chapter 14, Article 2, Division 4 (Landscape Regulations) and the standards established in the Land Development Manual. The regulations prohibit sediment and pollutants from leaving the work site and requires the property owner to implement and maintain temporary and permanent erosion, sedimentation, and water pollution control measures. Controls shall include measures outlined in Chapter 14, Article 2, Division 2 (Storm Water Runoff Control and Drainage Regulations) that address potential erosion and sedimentation impacts. Furthermore, any future projects involving clearing, grading, or excavation that causes soil disturbance of one or more acres, or any project involving less than one acre that is part of a larger development plan, shall be subject to NPDES General Construction Storm Water Permit provisions. Additionally, any development of this significant size within the City shall be required to prepare and comply with an approved storm water pollution prevention plan (SWPPP) that shall consider the full range of erosion control best management practices such as, but not limited to, any additional site-specific and seasonal conditions. Project compliance with NPDES requirements would significantly reduce the potential for substantial erosion or topsoil loss to occur in association with new development. Thus, with implementation of the existing regulatory framework, impacts related to erosion would be less than significant.

## **5.9.5 Significance of Impacts**

### **Issue 1: Geologic Hazards**

Subsequent projects implemented in accordance with the MPU have the potential to result in significant impacts related to geologic hazards. Future structures and improvements implemented in accordance with the MPU would have the potential to be subject to unstable conditions relating to seismicity (faults), liquefaction, landslides, and rockfall. The potential impacts associated with subsequent projects would be evaluated at a project level when detailed plans and grading quantities are known. Adherence to the SDMC and the CBC would reduce impacts related to geologic hazards to an acceptable level of risk, which is considered less than significant from a CEQA perspective.

### **Issue 2: Erosion**

Subsequent projects implemented in accordance with the MPU have the potential to result in significant impacts related to increasing the potential for on- or off-site erosion. Based on the steep slopes and highly erosive and poorly consolidated soils within portions of the study area, erosion would represent a potentially significant impact. Future projects implemented in accordance with the MPU would require site-specific evaluation to ensure erosion is minimized to the maximum

extent practicable. Adherence to the SDMC, Grading Regulations, and NPDES permit requirements ensures impacts related to erosion would be less than significant.

### **5.9.6 Mitigation Framework**

All impacts would be less than significant; thus, mitigation is not required.

## 5.10 Paleontological Resources

This section analyzes the potential impacts to paleontological resources due to implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). These resources are commonly referred to as fossils, which are the remains and/or traces of prehistoric animal and plant life exclusive of human remains or artifacts. The following analysis is based on the Paleontological Resource Assessment prepared for the Project (Appendix G). The section also discusses applicable regulations to subsequent projects contemplated by the Plans, and the existing geological formations within the study area that have the potential to contain paleontological resources.

### 5.10.1 Regulatory Framework

A number of federal statutes (e.g., Antiquities Act of 1906 [16 United States Code (USC) 431-433] and Federal-Aid Highway Act of 1935 [20 USC 78]) specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects.

Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA); the California Code, Title 14, Division 3, Chapter 1, Sections 4307 and 4309; and Public Resources Code Section 5097.5. Pursuant to Section 15065 of the CEQA Guidelines (California Code of Regulations Sections 15000–15387), a Lead Agency must find that a project would have a significant effect on the environment where the project has the potential to eliminate important examples of the major periods of California prehistory, including significant paleontological resources.

The City of San Diego's (City's) 2016 Significance Determination Thresholds set forth grading thresholds for development projects within geological formations that have high or moderate paleontological sensitivity, as discussed further below in Section 5.9.3.

### 5.10.2 Environmental Setting

#### 5.10.2.1 Regional Paleontological History

There is a direct relationship between fossils and the geologic formations within which they are enclosed; therefore, with sufficient knowledge of the geology and stratigraphy of a particular area and the paleontological resource potential, it is possible to reasonably predict where fossils might or might not be found. This is the case in San Diego County where a general overview of the geologic setting provides a basis for reasonably predicting the location of paleontological resources.

The City is underlain by a number of distinct geologic formations that record portions of the past 450 million years of Earth's history. In general, time periods late in geologic history are better represented than periods further back in time because the younger rocks are less likely to have been eroded away or metamorphosed. In the City, the geologic record is most complete for parts of the past 75 million years, represented by the Cretaceous Period, the Eocene, Oligocene, and Pliocene Epochs of the Tertiary Period, and the Pleistocene Epoch of the Quaternary Period.

### **5.10.1.2 Paleontological Resource Potential**

Geologic formations possess a specific paleontological resource potential wherever the formation occurs based on discoveries made elsewhere in that particular formation. To evaluate paleontological resources in the project area, the presence and distribution of geologic formations and the respective potential for paleontological resources were reviewed.

According to the paleontological resource assessment prepared for the project (Deméré and Ekdale 2011) geologic formations are rated as High, Medium, Low, or Zero paleontological resource sensitivity. A description of the ratings and the geologic formations within the project area that fall within each rating category are described below. In addition, Figures 5.10-1a and 5.10-1b provide the geographic distribution of the project's geological formations. Figure 5.10-2 provides the distribution of the paleontological resource sensitivities within the study area.

#### **a. High Sensitivity Formations**

High sensitivity is assigned to geologic formations known to contain paleontological collecting localities with rare, well-preserved, critical fossil materials for interpretation that provide important information about the paleobiology and evolutionary history of animal and plant groups. Geologic formations within the study area with high paleontological resource sensitivity are briefly discussed below.

##### ***Friars Formation (Tf)***

The Friars Formation has produced significant vertebrate fossils, including insectivores, primates, and ungulates. In addition, fossils indicative of marine paleoenvironments have been recovered from the Friars Formation, as well as fossilized leaf material. There are 27 San Diego Natural History Museum (SDNHM) fossil-collecting localities recorded from within a 1-mile radius of the study area. Two of these localities were discovered within the western portion of the study area along Fortuna Saddle Trail.

##### ***Stadium Conglomerate (Tst)***

The Stadium Conglomerate formation has produced fossils of plants and occasional well-preserved skeletal remains of insectivores, primates, rhinoceroses, and artiodactyls. Although the Stadium Conglomerate has produced numerous scientifically significant fossils, there are no recorded SDNHM fossil-collecting localities from within 1 mile of the study area.

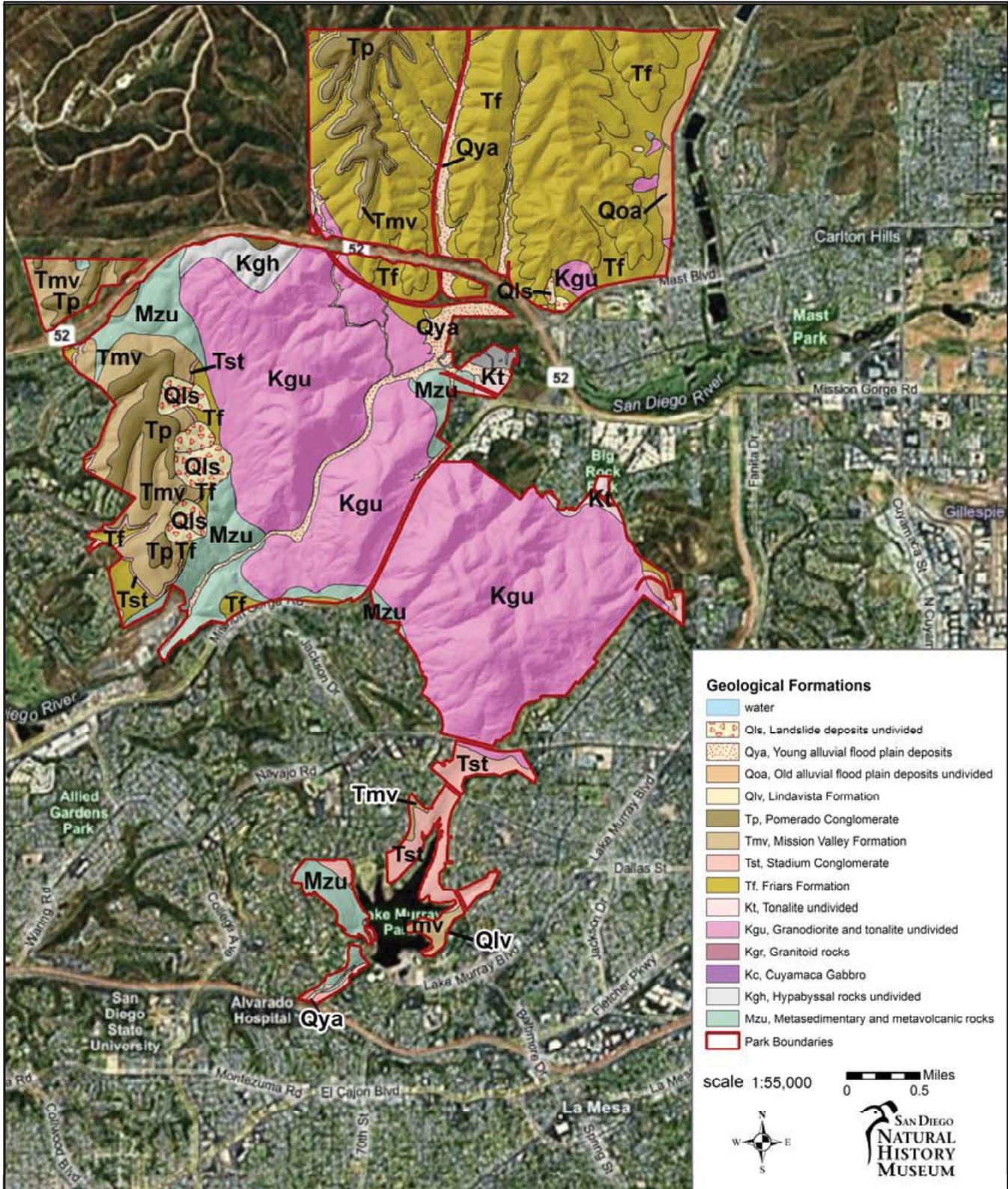


FIGURE 5.10-1a  
Geologic Formations

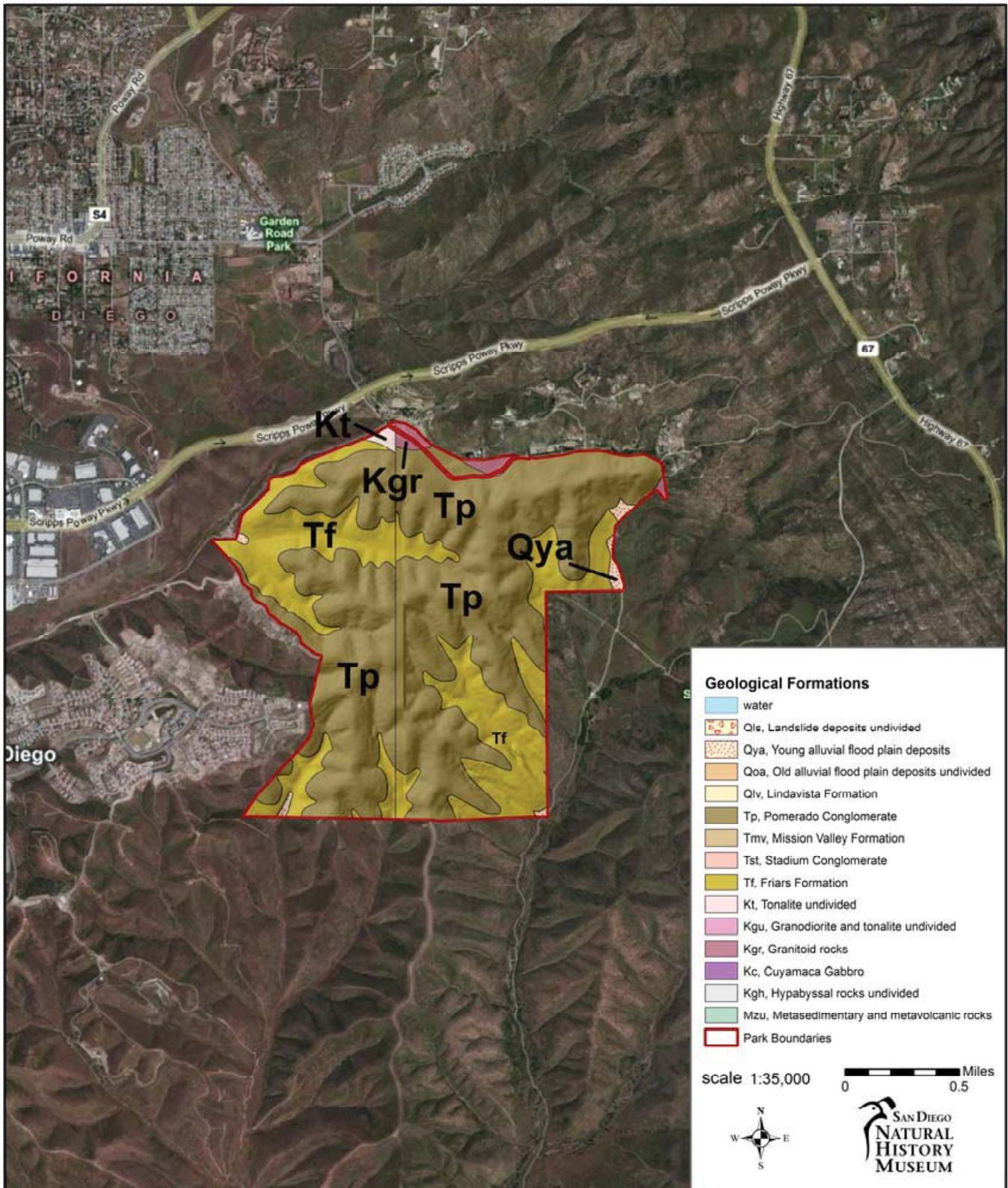


FIGURE 5.10-1b  
Geologic Formations – West Sycamore Expansion Area

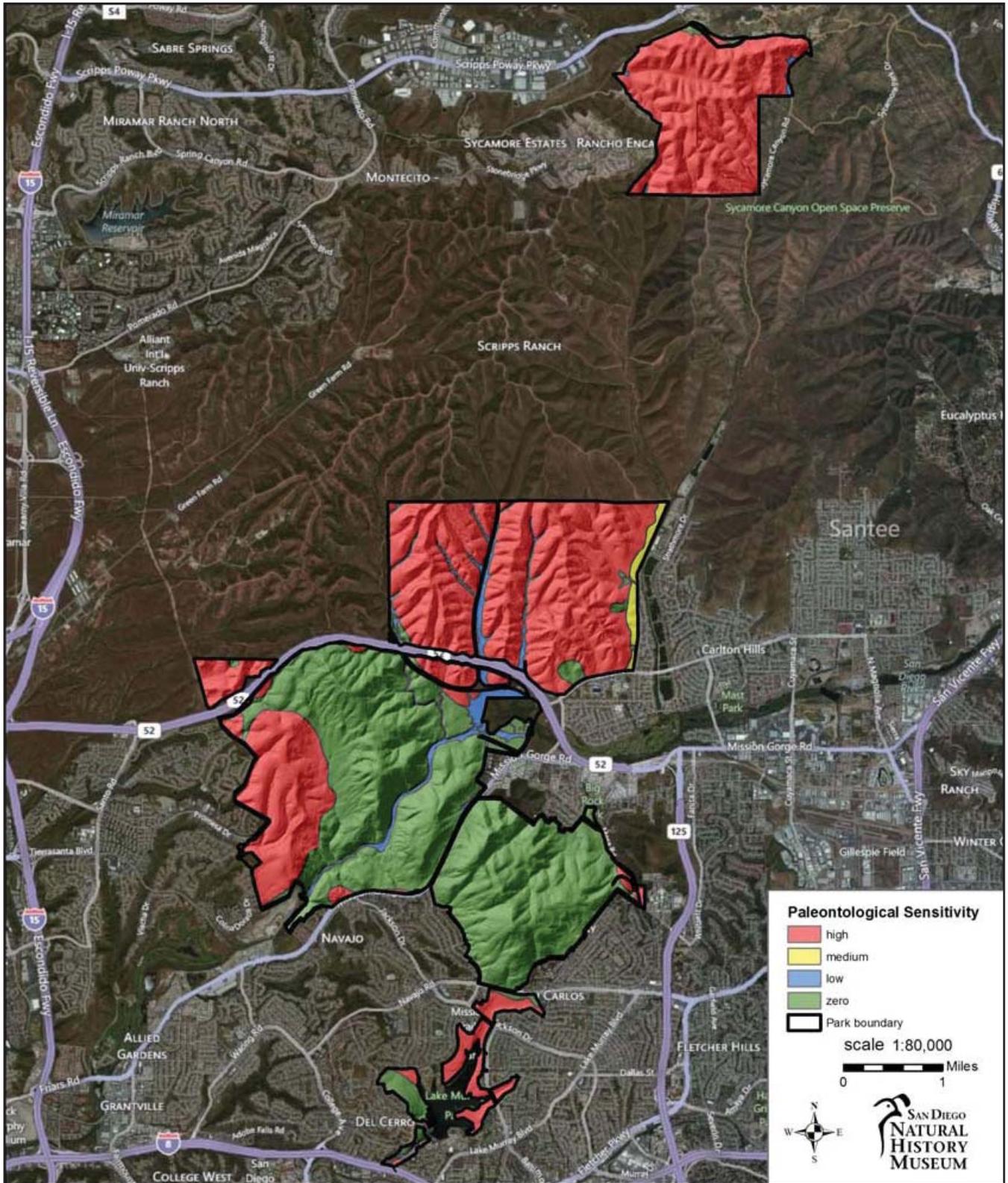


FIGURE 5.10-2  
Paleontological Resource Sensitivities

***Mission Valley Formation (Tmv)***

The Mission Valley Formation has produced well-preserved fossils of sea urchins, sharks, rays, and bony fish in addition to a diverse assemblage of terrestrial mammals, including bats, primates, artiodactyls, and perissodactyls. Fossils of many of these organisms have been recovered from 13 SDNHM fossil-collecting localities within 1 mile of the study area, one of which was discovered along the Fortuna Saddle Trail within the study area.

***Pomerado Conglomerate (Tp)***

The Pomerado Conglomerate has produced abundant terrestrial mammal fossils, such as primates, artiodactyls, marine clams/snails, and *Miacis*, an extinct carnivorous mammal. One SDNHM fossil locality was discovered in the Pomerado Conglomerate along a portion of SR-52 adjacent to the western side of the study area.

**b. Moderate Sensitivity Formations**

While the paleontological assessment prepared for the Project (see Appendix G) refers to “medium” paleontological sensitivity, the City’s 2016 Significance Determination Thresholds refers to a “moderate” sensitivity category. These categories are equivalent, and “moderate” will be used throughout this section. Moderate sensitivity is assigned to geologic formations known to contain paleontological-collecting localities with poorly preserved, common elsewhere, or stratigraphically unimportant fossil material. It is also applied to geologic formations that are judged to have a strong, but unproven potential for producing important fossil remains, as discussed below.

***Lindavista Formation (Qlv)***

Fossil-collecting localities are rare within the Lindavista Formation and have only been recorded from a few areas (e.g., Tierrasanta and Mira Mesa), consisting of remains of nearshore marine invertebrates and sparse remains of sharks and baleen whales. One fossil-collecting locality was discovered in this formation within 1 mile of the study area in Tierrasanta.

***Undivided Old Alluvial Floodplain Deposits (Qoa)***

These unnamed river terrace deposits represent the courses of prehistoric rivers. Diverse assemblages of “Ice Age” mammals—such as ground sloths, insectivores, wolves, camels, mastodons, and mammoths—have been recovered in San Diego County within this formation.

***Undivided Landslide Deposits (Qls)***

Sediments deposited as the result of landslides that occurred during the Quaternary Period are common occurrences in southern California. Although the landslides occurred relatively recently, the transported sediment may be significantly older based on the age of original deposition. Landslide deposits occur within the study area on the eastern slopes of the ridges west of the Fortuna Mountains. These deposits likely contain a mixture of rocks from the Pomerado Conglomerate, Mission Valley Formation, Stadium Conglomerate, and Friars Formation. If a landslide

occurs, deposits likely would contain fossils. Fossil remains have been recovered from the strata that contribute sediments to the landslide deposits.

### **c. Low and Zero Sensitivity Formations**

Low sensitivity is assigned to young alluvial floodplain deposits (Qya), as they are judged unlikely to produce important fossil remains. These surficial sedimentary deposits are generally considered to have little potential to yield scientifically significant fossils. However, on occasion deeper excavations into sedimentary deposits mapped as younger alluvium do yield fossils. Zero sensitivity is assigned to geologic formations that are entirely igneous in origin (i.e., plutonic, volcanic), and therefore, have no potential for producing fossil remains. Artificial fill materials are also assigned a paleontological resource sensitivity of zero. Such formations within the study area include limited exposures of artificial fill and more extensive outcrops of igneous and metamorphic rocks.

## **5.10.3 Significance Determination Thresholds**

Based on the City's 2016 Significance Determination Thresholds, impacts related to paleontological resources would be significant if implementation of the Plans and associated discretionary actions would:

1. Allow development to occur that could significantly impact a unique paleontological resource or a geologic formation possessing a moderate to high fossil-bearing potential.

## **5.10.4 Impact Analysis**

### **Issue 1: Paleontological Resources**

*Would implementation of the Plans and associated discretionary actions allow development to occur that could significantly impact a unique paleontological resource or a geologic formation possessing a moderate to high fossil-bearing potential?*

According to the City's Significance Determination Thresholds, impacts related to paleontological resources are significant if future subsequent projects implemented in accordance with the Plans are located where there are formations with medium to high sensitivity fossil-bearing potential and would require:

- Over 1,000 cubic yards of excavation in a high resource potential geologic deposit/formation/rock unit; or
- Over 2,000 cubic yards of excavation in a moderate resource potential geologic deposit/formation/rock unit; at a depth of 10 feet or more; or
- Require excavation or grading in areas where medium to high sensitivity formations are exposed at the surface or within close proximity to mapped fossil localities.

As discussed in Chapter 3, Project Description, implementation of the Plans would not allow specific development at this time. The Plans have been developed as an integrated set of management guidelines for the Park, with the MPU focusing on public access and recreation and the NRMP focusing on sensitive biological resources. The NRMP would have no impact with regards to paleontological resources, as the management actions would not require significant amounts of excavation. No impact would occur. The MPU is analyzed below.

Based on the existence of geologic formations with a moderate and high potential to contain fossil remains, the potential exists that subsequent projects implemented in accordance with the MPU that involve grading and excavation could significantly impact a paleontological resource.

A paleontological records search conducted at the SDNHM identified 50 discrete fossil-collecting localities within the vicinity of the study area; however, a majority of fossil discoveries have been found near the study area, but not within it. The reason most fossil localities do not originate from within the study area boundaries is because most fossils recorded from this region were discovered during monitoring of excavation activities associated with development activities. As the study area is primarily retained in its natural state and has been subject to limited grading and excavation compared to the surrounding developed areas, there have been limited fossil discoveries within its boundaries. While there are geologic formations within the Park with the potential for fossil discoveries, they remain buried and inaccessible, unless exposed by construction-related excavations.

Direct impacts to paleontological resources occur when earthwork activities cut into the geologic deposits (formations) within which fossils are buried and fossil remains are destroyed during grading and/or excavation. Since fossils are the remains of prehistoric animal and plant life, they are considered to be nonrenewable, important scientifically, and significant under CEQA. The most sensitive areas for paleontological resources occur in the East Elliott and West Sycamore areas north of SR-52, as well as along the western section of the study area (see Figure 5.10--2).

Various MPU recommendations identify subsequent projects that could result in excavation and grading within these areas. For example, MPU recommendation WS-F1 states: "Provide a restroom, ranger office, hitching posts, shade structure, and picnic tables at the West Sycamore staging area." These types of projects would involve some level of grading, excavation, and/or construction that have the potential to damage or destroy buried paleontological resources.

The detailed information regarding the location, depth, and volume of grading required to implement subsequent projects in accordance with the MPU is not available at this level of analysis. It can be assumed that a certain amount of disturbance to the native bedrock within the study area has the potential to impact fossils preserved in high and medium resource potential geological formations. The potential impacts associated with implementation of the MPU would be evaluated at a project level when detailed plans and grading quantities are known. As the specific impacts are not known at this time, impacts would be considered significant (**Impact PALEO-1**), and mitigation is required.

### 5.10.5 Significance of Impacts

Subsequent projects implemented in accordance with the Plans and associated discretionary actions would have the potential to result in significant impacts to paleontological resources if they exceed the excavation and depth thresholds of significance, or involve substantial grading within any of the formations with a moderate or high resource sensitivity rating. Therefore, impacts would be significant (**Impact PALEO-1**), and mitigation is required.

### 5.10.6 Mitigation Framework

If future implementation of the Plans would result in subsurface disturbance activities, the following mitigation framework would be implemented to minimize potential impacts through development of a project-specific paleontological monitoring program. If no subsurface disturbance is planned, then the paleontological resources would not be impacted and development of project-specific paleontological monitoring would not be necessary. The following Mitigation Framework would be required to mitigate for **Impact PALEO-1**.

**MM-PALEO-1:** Prior to Project Approval:

- A. The environmental analyst shall complete a project-level analysis of potential impacts on paleontological resources. The analysis shall include a review of the applicable U.S. Geological Survey Quad maps to identify the underlying geologic formations, and shall determine if construction of a project would:
- Require over 1,000 cubic yards of excavation and/or a 10-foot, or greater, depth in a high resource potential geologic deposit/formation/rock unit.
  - Require over 2,000 cubic yards of excavation and/or a 10-foot, or greater, depth in a moderate resource potential geologic deposit/formation/rock unit.
  - Require construction within a known fossil location or fossil recovery site.

Resource potential within a formation is based on the Paleontological Monitoring Determination Matrix (City of San Diego 2016).

- B. If construction of a project would occur within a formation with a moderate to high resource potential, monitoring during construction would be required.
- Monitoring is always required when grading on a fossil recovery site or a known fossil location.
  - Monitoring may also be needed at shallower depths if fossil resources are present or likely to be present after review of source materials or consultation with an expert in fossil resources (e.g., the SDNHM).

- Monitoring may be required for shallow grading (less than 10 feet) when a site has previously been graded and/or unweathered geologic deposits/formations/rock units are present at the surface.
- Monitoring is not required when grading documented artificial fill.

When it has been determined that a future project has the potential to impact a geologic formation with a high or moderate fossil sensitivity rating a paleontological Mitigation Monitoring and Reporting Program shall be implemented during construction grading activities.

### **5.10.7 Significance after Mitigation**

Although implementation of the Plans and associated discretionary actions would have the potential to result in significant impacts to paleontological resources, subsequent projects exceeding the grading thresholds in high or moderate paleontological resource formations would be required to implement **MM-PALEO-1** during construction-related activities. The Mitigation Framework requires site-specific environmental review, analysis of potential impacts, and recommendations for mitigation to reduce significant impacts to below a level of significance.

## 5.11 Transportation/Circulation

This section analyzes the potential transportation-related impacts associated with implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). The analysis in this section is partially based on the traffic and parking technical study (Appendix H) and also on information within the MPU. This section also discusses the regulations applicable to the Plans, existing circulation and access routes within the study area, parking, and alternative transportation routes.

### 5.11.1 Regulatory Framework

There are no applicable federal or state regulations to transportation. Local regulations are detailed below.

#### 5.11.1.1 Regional Transportation Plan

The San Diego Association of Governments' (SANDAG's) 2050 Regional Transportation Plan (RTP; adopted in October 2011) is the long-range mobility plan for the region. It includes short-term and long-term strategies for the development of an integrated multi-modal transportation system, and is required in order to be eligible for state and federal funding. The RTP identifies and prioritizes projects, and calls out funding sources for their implementation. The plan addresses improvements to transit, rail, roadways, goods movement, bicycling, and walking, as well as other topics. In October of 2015, SANDAG adopted San Diego Forward, the combination and update of the Regional Comprehensive Plan for the San Diego Region and the 2050 Regional Transportation Plan/Sustainable Communities Strategy into one plan.

#### 5.11.1.2 General Plan

The Mobility Element of the City of San Diego's (City's) General Plan defines policies regarding traffic flow and transportation facility design. The purpose of the Mobility Element is "to improve mobility through development of a balanced, multi-modal transportation network." The main goals of the Mobility Element pertain to walkable communities, transit first, street and freeway system, intelligent transportation systems (ITS), Transportation Demand Management (TDM), bicycling, parking management, airports, passenger rail, goods movement/freight, and regional transportation coordination and financing.

#### 5.11.1.3 Pedestrian Master Plan

Per the City's Pedestrian Master Plan (December 2006), pedestrian facilities can be classified into the following seven categories.

**Route Type 1—District Sidewalks** are walks along roads that support heavy pedestrian levels in mixed-use concentrated urban areas.

**Route Type 2—Corridor Sidewalks** are walks along roads that support moderate density business and shopping districts with moderate pedestrian levels. They range from wide walks along boulevards to small walks along a heavily auto-oriented roadway.

**Route Type 3—Connector Sidewalks** tend to have low pedestrian levels and are along roads with moderate to high average vehicular traffic. Connector sidewalks tend to be long and generally do not have accessible land uses directly adjacent to the sidewalk.

**Route Type 4—Neighborhood Sidewalks** are walks along roads that support low to moderate density housing with low to moderate pedestrian levels. Neighborhood streets and their associated walkways are generally lower volume streets, with low to moderate widths, single lanes, and posted or prima facie speed limits of 25 miles per hour (mph).

**Route Type 5—Ancillary Pedestrian Facilities** are facilities away from or crossing over streets such as plazas, paseos, promenades, courtyards, or pedestrian bridges and stairways. The MPU recommendation MG-R4 would provide for an all-weather suspension or truss pedestrian and bicycle bridge across the San Diego River near the San Diego River Crossing trail.

**Route Type 6—Paths** are paved facilities with exclusive right-of-ways that act as corridors and have little or no vehicular cross flows. Many of these paths are exclusive to pedestrians and bicycles and are not associated with streets.

**Route Type 7—Trails** are separated from roads and support activities such as hiking, biking, and walking primarily through parks and open space. They differ from paths in that they are not paved with concrete or asphalt. A large portion of the MPU Recommendations pertains to recreational trails.

### 5.11.1.4 Bicycle Master Plan

The City's Bicycle Master Plan (City of San Diego 2013b) seeks to foster a bicycle-friendly environment to serve commuter and recreational riders. The plan identifies policies, routes, programs, and facility priorities to increase bicycle transportation, safety, access, and quality of life. Similar to improved pedestrian environments and routes, improved bicycle routes can increase ridership, which provides community and regional benefits (reduced traffic congestion, energy consumption, vehicle emissions, etc.). Approximately 54 miles of the Park's official trail system are designated for hiking and bicycle use. The Deerfield Bike Skills Area, located in the southern portion of the Mission Gorge area, contains jumps and trails used by the BMX community.

## 5.11.2 Environmental Setting

### 5.11.2.1 Circulation and Access

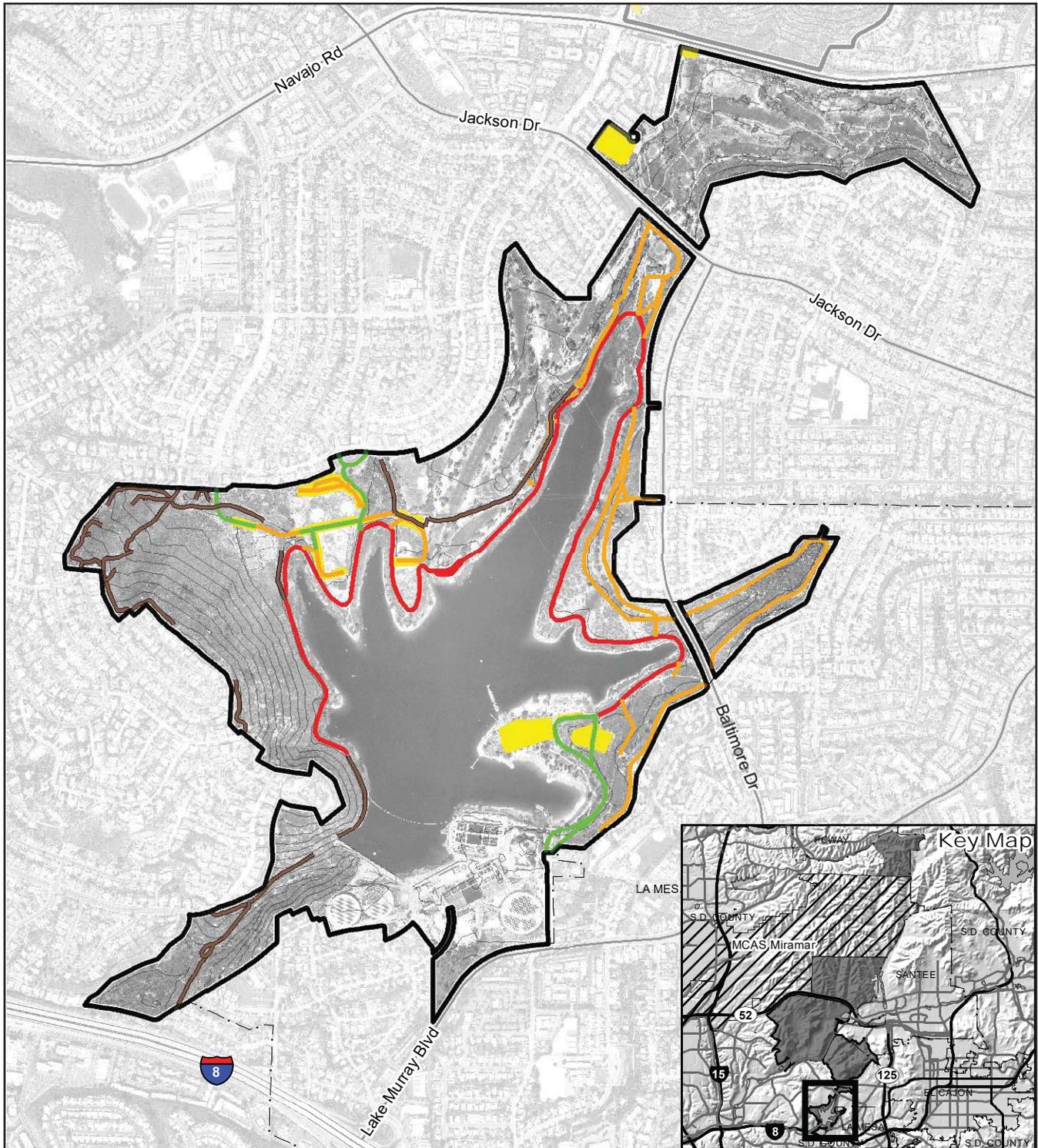
The study area contains approximately 72 miles of roads, with paved roads totaling less than nine miles. Only approximately 5 miles of paved roads are accessible to the public. Public vehicular access is typically limited to the perimeter roads, with the exception of northbound vehicular traffic on the Father Junipero Serra Trail. Approximately 64 miles of unpaved roads make up the majority of the park roads, with 40.67 of those miles being related to unpaved utility roads maintained by San Diego Gas & Electric (SDG&E) and San Diego County Water Authority (SDCWA). The remaining approximately 23 miles of unpaved roads are Park access roads used by rangers and emergency vehicles.

Paved, publicly accessible roads include the Lake Murray entrance road from Kiowa Drive to the parking area; the entrance to Lake Murray Community Park and tennis courts, the maintenance road around Lake Murray, the Father Junipero Serra Trail between the Visitor and Interpretive Center and Kumeyaay Lake Campground, and roads within the Kumeyaay Lake Campground and East Fortuna Staging Area. Table 5.11-1 summarizes the types of roads within the study area.

Type	Miles	Percent
Roads		
Paved Park Road	4.61	3.71
Paved Maintenance Road	3.92	3.16
Unpaved Park Road	22.98	18.52
Unpaved Utility Road	40.67	32.78
Subtotal (Roads)	72.18	58.17
Trails	51.90	41.83
<b>TOTAL</b>	<b>124.08</b>	100

There are four access points into the Lake Murray area (Figure 5.11-1). Primary access is from Kiowa Drive. The Baltimore Drive access point is for utility vehicles only, but provides a pedestrian gate for community entry. The Belle Glade Avenue entry from Murray Park Drive serves the community park on the northwest side of the lake. An entrance at Murray Park Drive and Park Ridge Boulevard serves the tennis courts. Two additional entrances provide access to the golf course, one off Navajo Road and the other off Golfcrest Drive. The approximately 14 miles of circulation routes within the Lake Murray area are dominated by paved and unpaved maintenance roads (11.28 miles), most of which double as public recreational access. The maintenance roads provide access to both the shoreline of Lake Murray and the urban runoff diversion system that encompasses much of the reservoir.

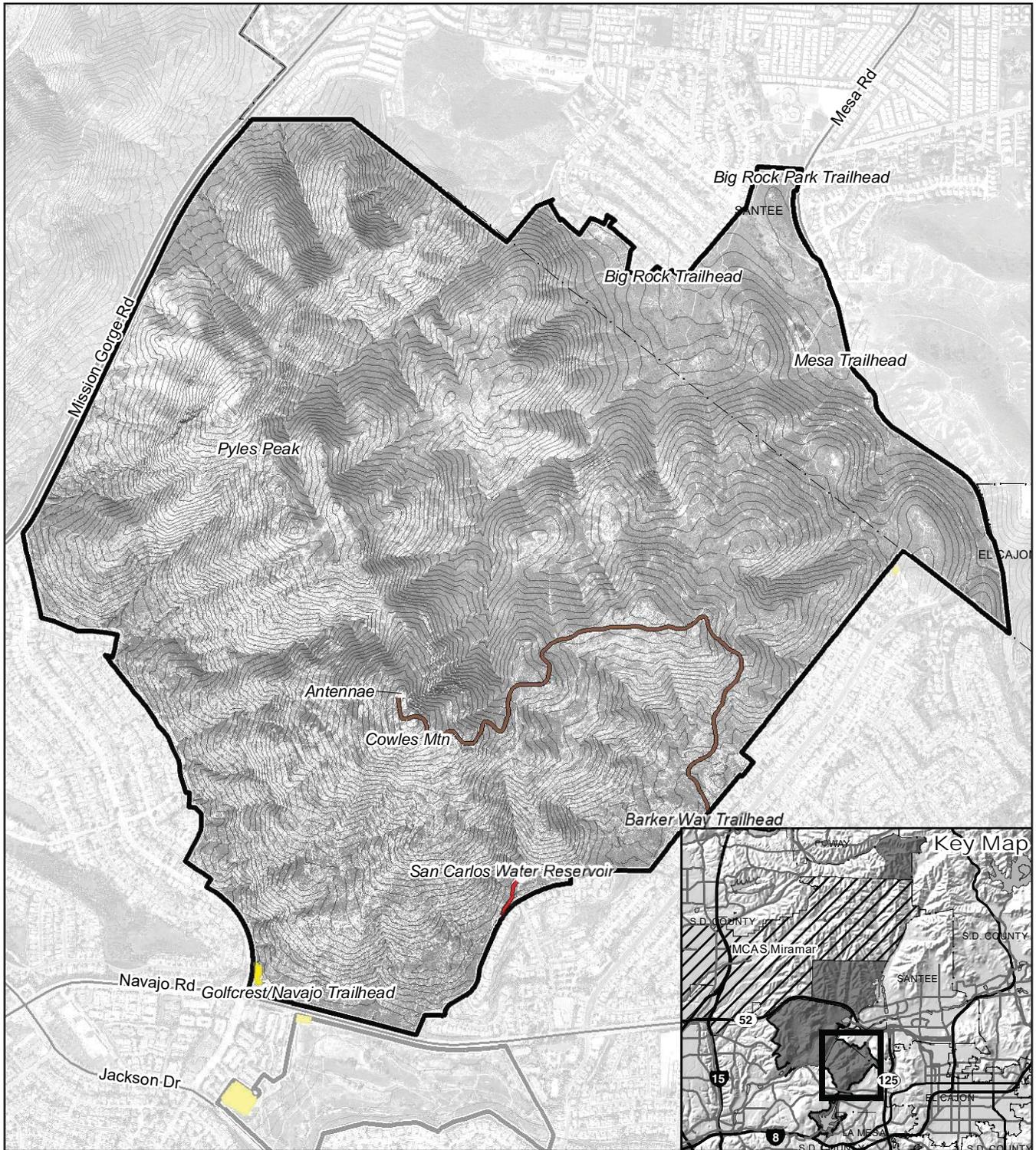
There are four entries to the Cowles Mountain area (Figure 5.11-2). The major entry is the Cowles Mountain staging area at the intersection of Golfcrest Drive and Navajo Road in the San Carlos neighborhood in the Navajo Community Planning Area. A second entry is located at Barker Way, within a residential neighborhood.



- |                      |                             |
|----------------------|-----------------------------|
| Municipal Boundaries | <b>Existing Circulation</b> |
| MTRP Boundary        | Paved Maintenance Road      |
| Parking              | Paved Park Road             |
| MCAS Miramar         | Unpaved Utility Road        |
|                      | Unpaved Park Road           |



**FIGURE 5.11-1**  
Lake Murray Vehicular Circulation and Parking



- |                      |                             |
|----------------------|-----------------------------|
| Municipal Boundaries | <b>Existing Circulation</b> |
| MTRP Boundary        | Paved Maintenance Road      |
| Parking              | Unpaved Utility Road        |
| MCAS Miramar         |                             |

**FIGURE 5.11-2**  
Cowles Mountain Vehicular Circulation and Parking

There are two entries from the Santee side of the mountain, one at Big Rock Park and the second at the end of Mesa Road. The Cowles Mountain area has publicly accessible park roads only on its perimeter, with interior utility and emergency access provided from Barker Way to the summit. As such, only 2.26 miles of the approximately 15 miles of circulation routes within the area are for vehicular use.

The Mission Gorge area is accessed from four locations: San Diego River crossing staging area; Visitor and Interpretive Center; Old Mission Dam; and Kumeyaay Lake Campground (Figure 5.11-3). Of the 14.37 miles of circulation routes within this area, 7.51 miles are used for vehicular access. One lane of Father Junipero Serra Trail is used as a Class 1 Bike Path by cyclists, pedestrians, and skaters, and the other lane is used for one-way vehicular traffic going north toward Santee.

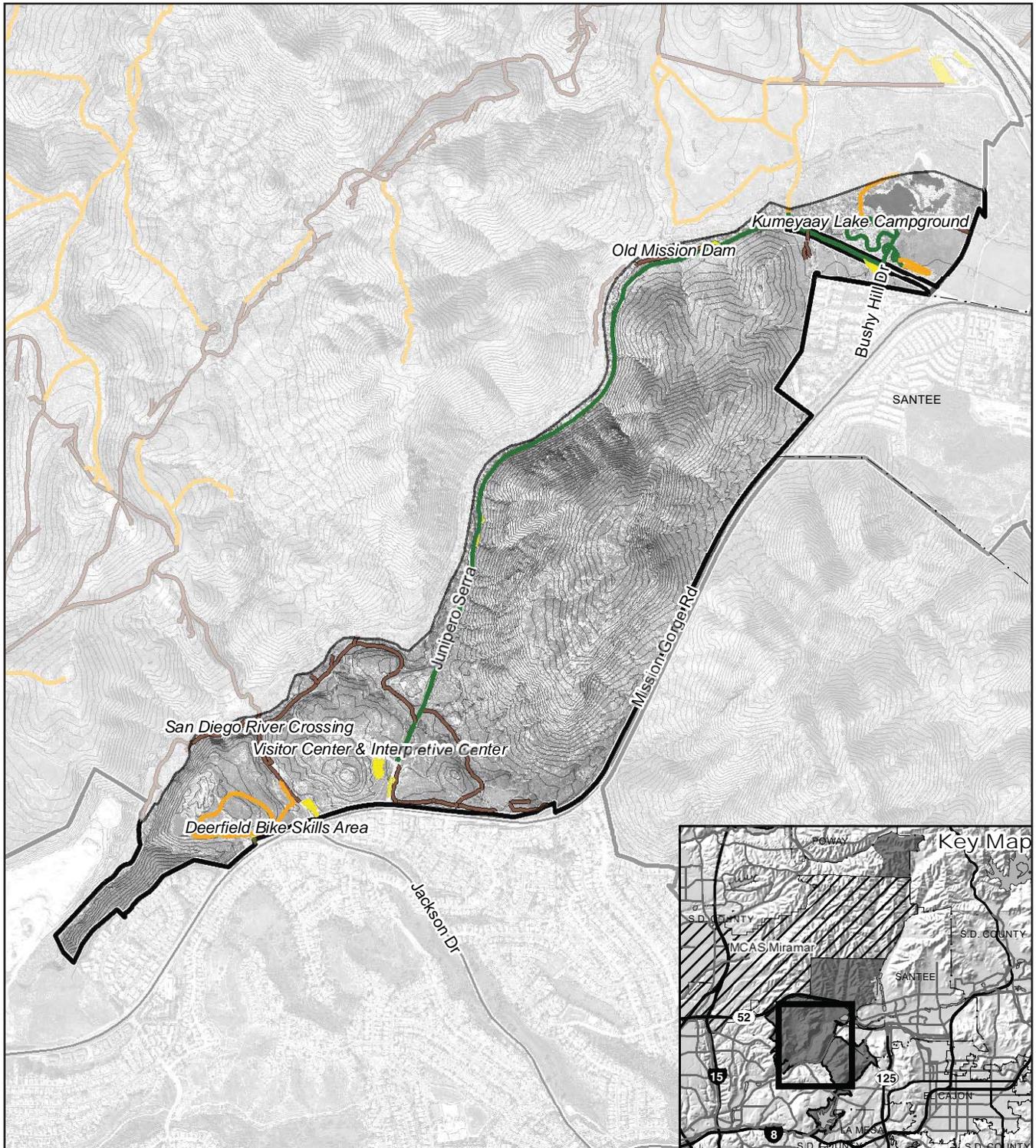
The Fortuna Mountain area is accessed from one of two staging areas: the East Fortuna Staging Area or the Clairemont Mesa Boulevard staging area (Figure 5.11-4). Of the 34.12 miles of circulation routes within the area, 23.78 miles are associated with vehicular access. The limited paved roads within this area are associated with the two staging areas. There are also 14 miles of unpaved utility roads that crisscross the area as they follow SDCWA pipelines or SDG&E gas mains and electrical transmission lines. There are an additional 8 miles of unpaved park roads utilized by rangers and emergency vehicles. All of these access roads are used by the public for non-vehicular recreational access and often provide the only connectivity between major areas (e.g., San Diego River Crossing and Fortuna Saddle).

There are no dedicated vehicular entrances into the East Elliott area (Figure 5.11-5). Access is provided from the Fortuna Mountain area via two SR-52 underpasses. Of the approximately 37 miles of circulation routes within the area, only approximately 21 miles are associated with vehicular access. The private access road for the landfill is the only paved road within the area. There are also approximately 11 miles of unpaved utility access roads.

The West Sycamore area is accessed from the Stonebridge staging area (Figure 5.11-6). The gate at the staging area is open daily from 8 a.m. to 5 p.m. from November through February, and 8 a.m. to 7 p.m. from March through October. Of the 9.26 miles of circulation routes, 6.39 miles are utilized for vehicular access. The entrance road is the only paved road within this area. There are also nearly 6 miles of unpaved utility and park access roads within this area.

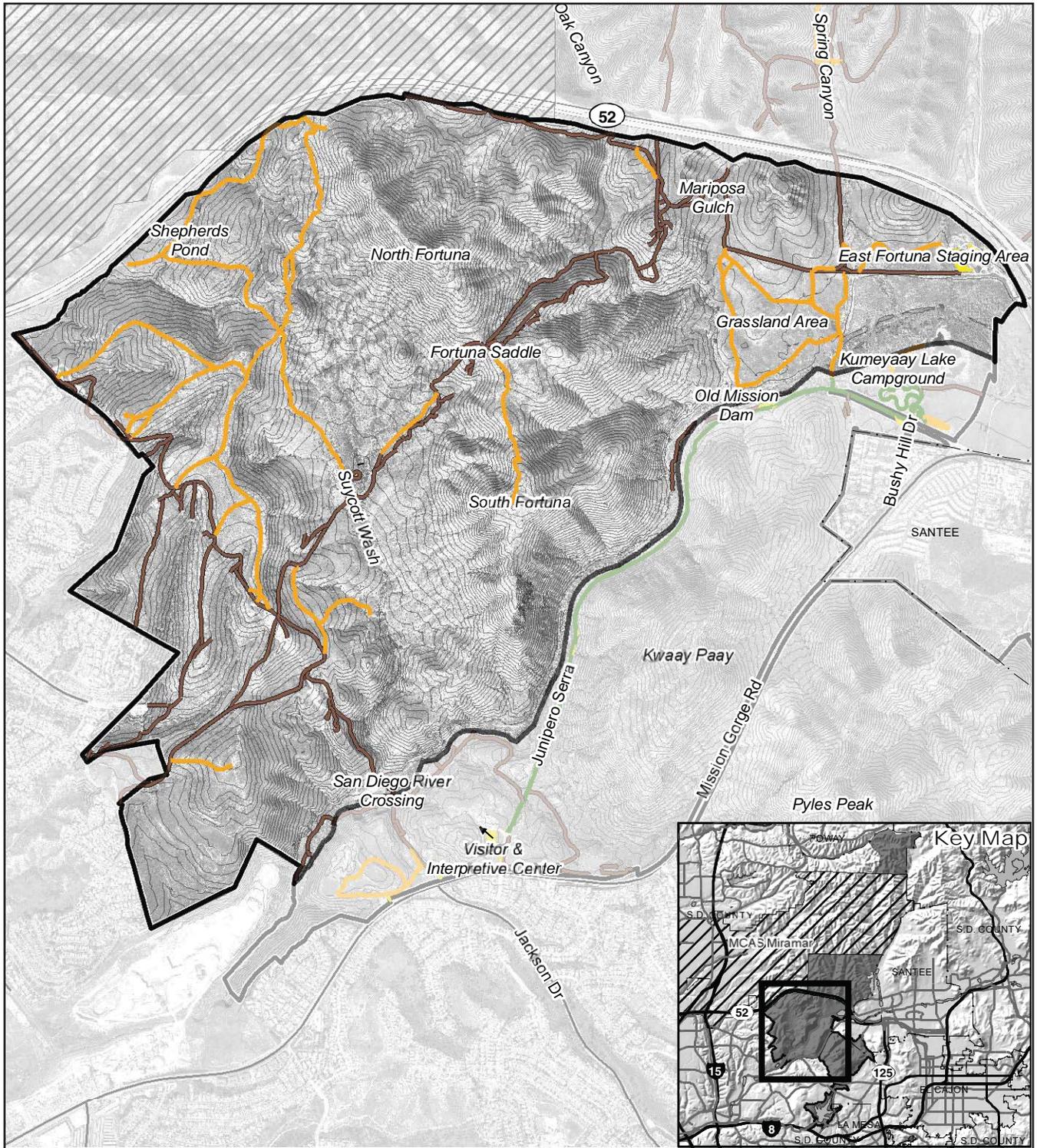
### **5.11.2.2 Parking**

Several off-street parking areas are located within the Park. Due to heavy Park use, parking areas fill quickly and on-street parking within residential areas is common.



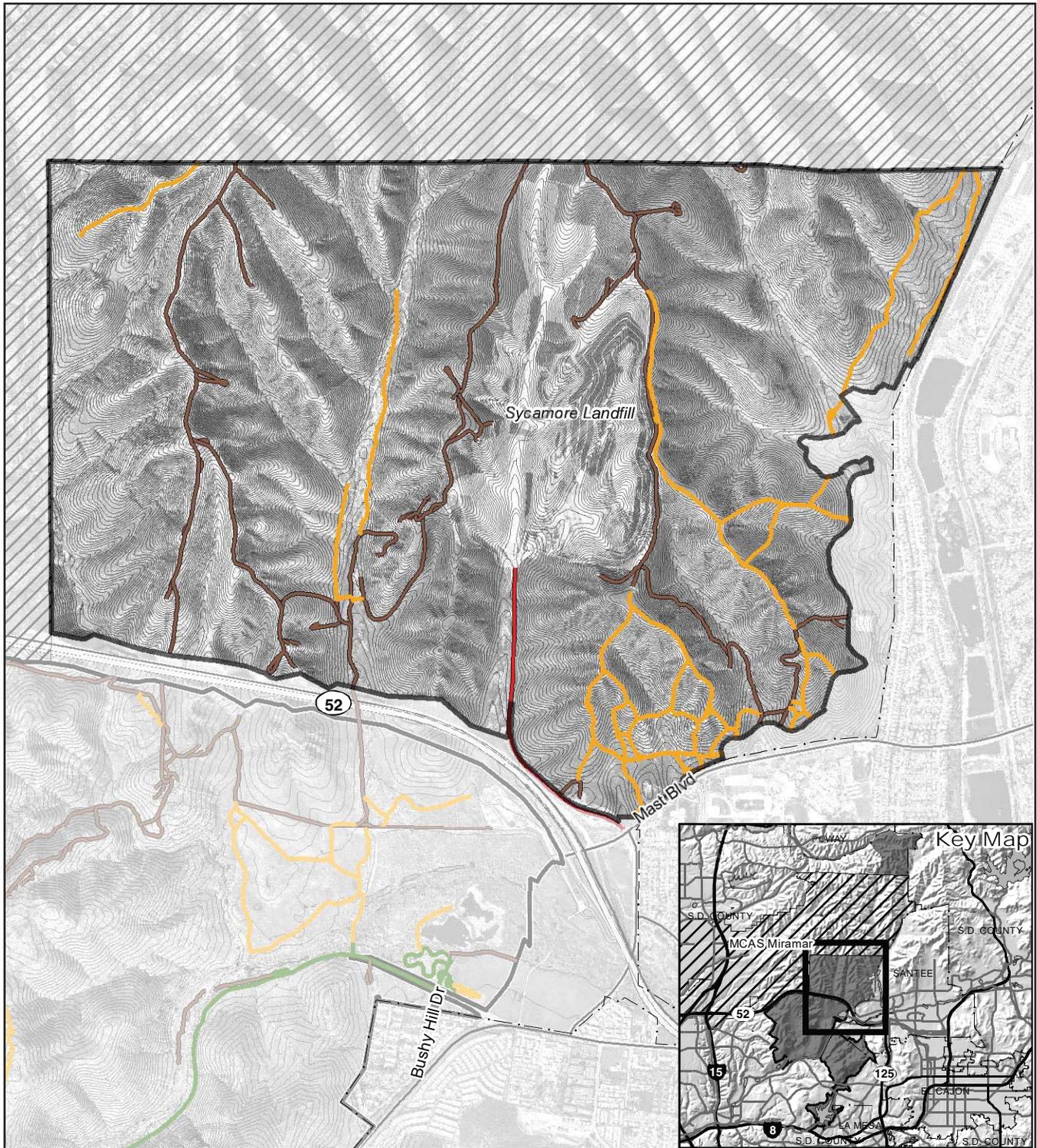
- |                      |                             |
|----------------------|-----------------------------|
| Municipal Boundaries | <b>Existing Circulation</b> |
| MTRP Boundary        | Paved Park Road             |
| Parking              | Unpaved Utility Road        |
| MCAS Miramar         | Unpaved Park Road           |

**FIGURE 5.11-3**  
Mission Gorge Vehicular Circulation and Parking



- |                      |                             |
|----------------------|-----------------------------|
| Municipal Boundaries | <b>Existing Circulation</b> |
| MTRP Boundary        | Paved Park Road             |
| Parking              | Unpaved Utility Road        |
| MCAS Miramar         | Unpaved Park Road           |

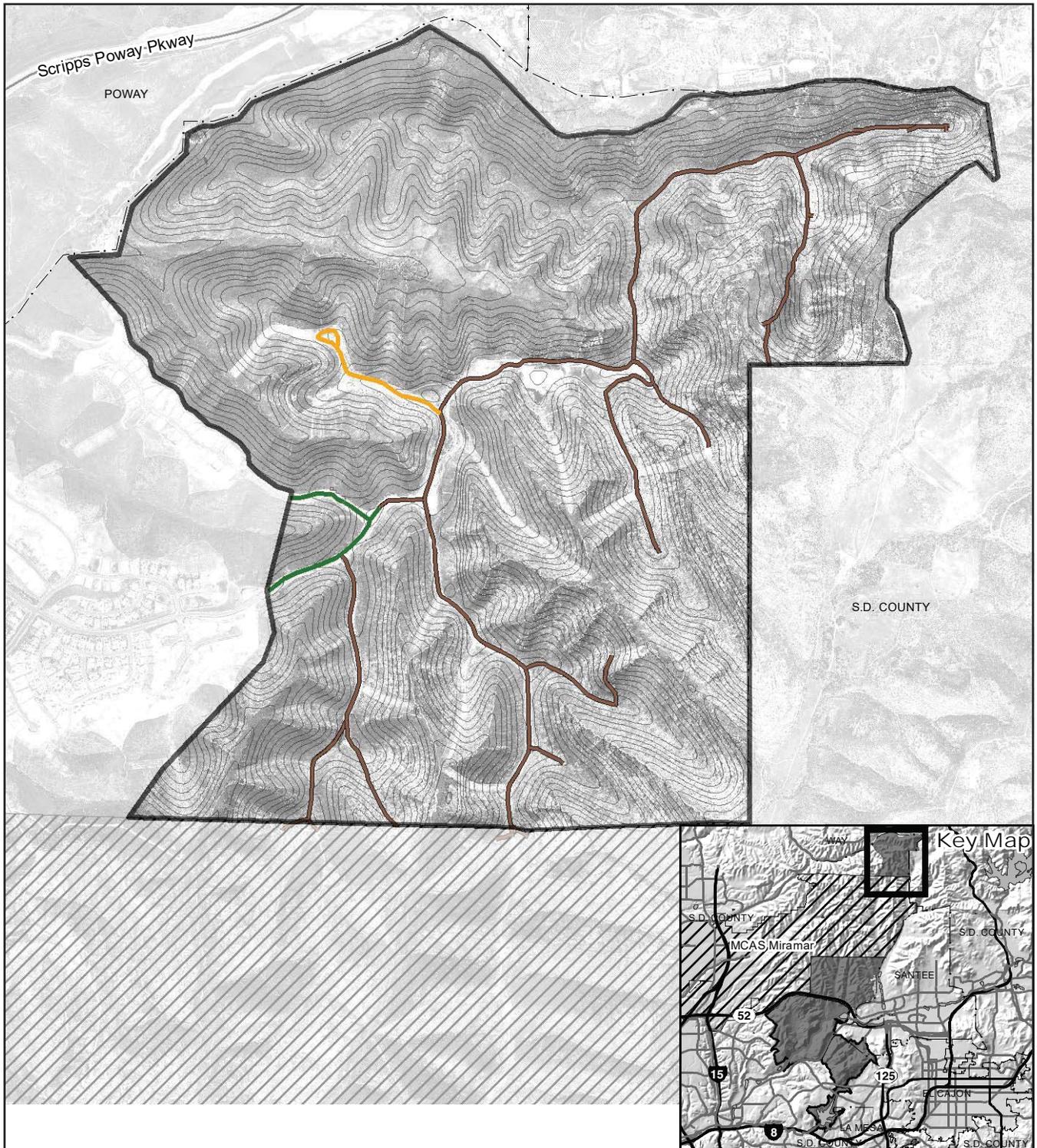
**FIGURE 5.11-4**  
Fortuna Mountain Vehicular Circulation and Parking



-  MCAS Miramar
-  Municipal Boundaries
-  MTRP Boundary
- Existing Circulation**
-  Paved Maintenance Road
-  Paved Park Road
-  Unpaved Utility Road
-  Unpaved Park Road



FIGURE 5.11-5  
East Elliott Vehicular Circulation



-  MCAS Miramar
-  MTRP Boundary
-  Municipal Boundaries
- Existing Circulation**
-  Paved Park Road
-  Unpaved Utility Road
-  Unpaved Park Road



**FIGURE 5.11-6**  
West Sycamore Vehicular Circulation

In the Lake Murray area, off-street parking is located at the end of Kiowa Drive, at the Lake Murray Tennis Courts, and at the Lake Murray Community Park. On-street parking is available along Kiowa Drive, Baltimore Drive, and Murray Park Drive. Parking for the golf course is along Navajo Road and off Golfcrest Place (see Figure 5.11-1).

Within the Cowles Mountain area, the main entry at Golfcrest Drive and Navajo Road provides parking for 25 vehicles. The secondary access point at Barker Way provides limited on-street parking within a residential neighborhood. The three entries from the Santee side of the mountain located at Big Rock Park, at the end of Big Rock Road, and at the end of Mesa Road also provide limited on-street parking (see Figure 5.11-2).

Within the Mission Gorge area, off-street parking is provided at the San Diego River crossing staging area, the Visitor and Interpretive Center, Old Mission Dam, Kumeyaay Lake Campground, and the parking area at Bushy Hill Drive (see Figure 5.11-3). On street parking is provided along Father Junipero Serra Trail outside the park gates and limited parking is allowed within the park where the dirt shoulder is wide enough. During periods of peak park usage, the parking at the Visitor and Interpretive Center, along Father Junipero Serra Trail, and at the San Diego River crossing staging area is inadequate causing visitors to begin parking in the residential neighborhoods south of Mission Gorge Road.

Parking within the Fortuna Mountain area is provided at the two staging areas at Clairemont Mesa Boulevard and the East Fortuna Staging Area (see Figure 5.11-4). Both areas provide off-street parking. In addition, limited on-street parking is provided along the equestrian circle outside the park gates at the East Fortuna Staging Area. On-street parking is available at the end of Clairemont Mesa Boulevard and along several residential streets near the various community access points within Tierrasanta.

Within the East Elliott area there are no dedicated parking areas. The East Fortuna Staging Area in the Fortuna Mountain area currently provides the closest public parking and staging area for East Elliott access.

In the West Sycamore area, off-street parking is provided at the Stonebridge staging area at the end of Stonebridge Parkway in the western portion of the area, east of the Rancho Encantada community. Additional parking and access is available from the staging area for Goodan Ranch Sycamore Canyon Preserve at the end of Sycamore Canyon Road.

### **5.11.2.3 Public Transportation**

No transit services are available along Mission Gorge Road, serving the main Park entrance at the Visitor and Interpretive Center in the Mission Gorge area. Limited transit services are provided within the study area or on roadways serving the Park. Within the Lake Murray area, Metropolitan Transit System (MTS) Route 115 traverses Jackson Drive between the Lake Murray and Cowles Mountain areas, with the nearest stop located approximately one-quarter mile south of the Cowles Mountain staging area at Navajo Road and Golfcrest Drive. From Santee, MTS Route 834 provides transit service to Big Rock Park, a secondary access point to the Cowles Mountain area.

### 5.11.3 Significance Determination Thresholds

Based on the City's 2016 Significance Determination Thresholds impacts related to traffic and circulation would be significant if implementation of the Plans and associated discretionary actions would:

1. Result in an increase in projected traffic that is substantial in relation to the capacity of existing circulation system;
2. Create alterations to present circulation movements in the area including effects on existing public access points;
3. Impact the availability of parking; and
4. Conflict with the adopted policies, plans, or programs supporting alternative transportation modes (e.g., bus turnouts, trolley extensions, bicycle lanes, bicycle racks, etc.).

### 5.11.4 Impact Analysis

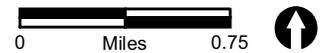
#### Issue 1: Capacity

*Would implementation of the Plans and associated discretionary actions result in an increase in projected traffic that is substantial in relation to the capacity of the circulation system?*

The NRMP would have no impact with regards to generating traffic, as management actions such as hand weeding, exclusionary fencing, and erosion control would not generate traffic or require a noticeable increase in Park personnel that would increase traffic on area roads. The MPU is analyzed below.

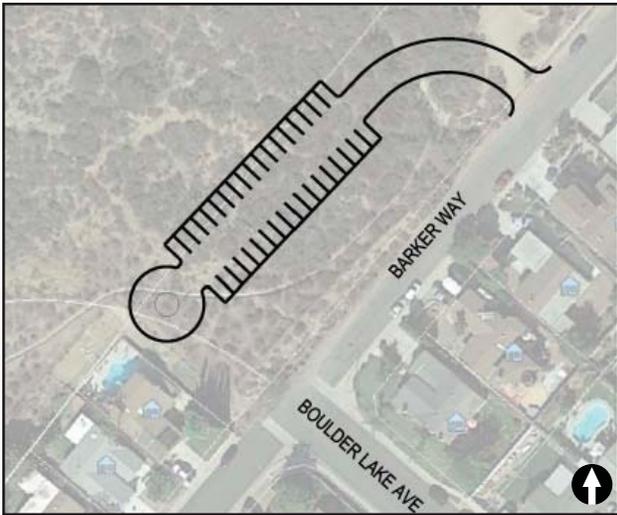
As discussed in Chapter 3, Project Description, the MPU does not propose specific development at this time. It does, however, identify recreational amenities (e.g., shade structures, benches, picnic areas, trail improvements) and parking areas as subsequent projects that could attract and accommodate additional visitors to the Park. While new recreational amenities such as park benches, restrooms, trail construction and shade structures would improve the Park and could attract more visitors to the Park, any increase in Park use would likely occur with or without these improvements, based on regional population growth and increasing demand for park space.

As a result, the focus of this analysis is on the additional parking facilities recommended in the MPU, as these facilities may accommodate additional visitors and could have a noticeable effect on traffic volumes surrounding these facilities. Figure 5.11-7 identifies the location of the four recommended parking areas and Figure 5.11-8 shows the configuration of the recommended parking areas. The anticipated impacts of each of the proposed parking facilities are discussed below.

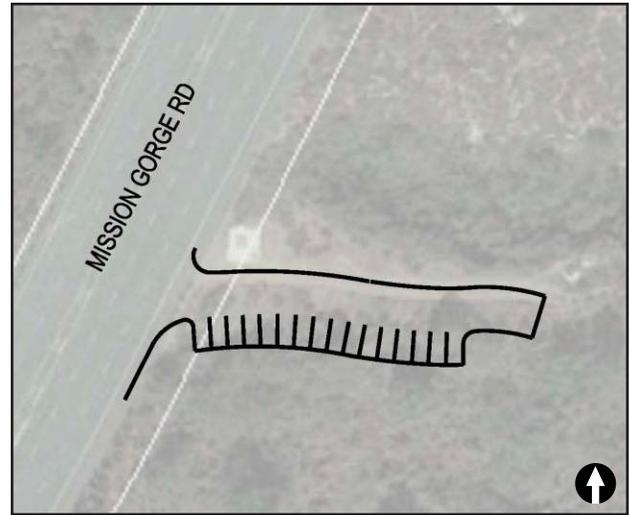


 Recommended Parking Location

FIGURE 5.11-7  
Recommended Parking Locations



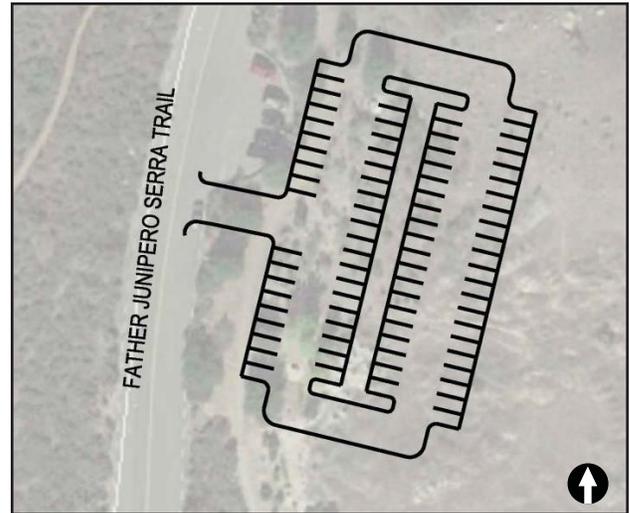
Barker Way Parking (CM-F1)



Mission Gorge Road Parking at SDCWA Pipeline Access (CM-F2)



Mesa Road Parking Improvements and Bike Skills Area in the City of Santee (CM-F3)



Father Junipero Serra Trail Parking (MG-F6)

FIGURE 5.11-8  
Conceptual Parking Area Configurations

### **a. Barker Way**

MPU Recommendation CM-F1 identifies an off-street gravel or decomposed granite surfaced parking area at the southeast boundary of the Cowles Mountain area, on the west side of Barker Way between Boulder Lake Avenue and Coleshill Drive. Barker Way in this area is a paved, two-lane, City of San Diego residential street with full improvements (sidewalks, curbs and gutters) on the eastern side, adjacent to residences. Street width varies from approximately 30 feet down to approximately 24 feet.

Traffic volumes on Barker Way were measured as 310 average daily traffic (ADT) on a weekday and 730 ADT on a weekend. These volumes are consistent with the roadway classification "single loaded residential street" which is meant to carry no more than 1,500 vehicles per day. For purposes of this analysis, it is assumed that the Barker Way parking area would accommodate 36 vehicles. The addition of a 36-vehicle parking area would potentially add four to eight times that amount of vehicle trips per day, or up to 288 ADT. This assumes every space turns over four times during the day and each parked vehicle returns the same way they came in, representing one trip in and one trip out for a total of two daily trips per vehicle. During the peak hour it is assumed that a maximum of 36 peak hour trips would be generated based on all 36 spaces being used and the typical visitor spending at least one hour at the park.

The addition of up to 288 additional ADT and up to 36 hourly trips during the peak-hour are below the City's threshold for requiring further analysis of traffic impacts. In addition, the projected traffic volumes do not account for existing trips to and from the Barker Way trailhead; therefore, actual trip generation would be less. Due to the projected trips being below the City's threshold for further traffic analysis and because the parking area would primarily accommodate existing Park traffic rather than generate it, the Barker Way parking area is not expected to result in an increase in projected traffic that is substantial in relation to the capacity of existing circulation system.

### **b. Mission Gorge Road**

MPU Recommendation CM-F2 would provide an off-street parking area within the Cowles Mountain area, just north of and uphill from Golfcrest Drive off Mission Gorge Road adjacent to the SDCWA pipeline access portal. This area provides northerly access to the Pyles Peak trail and a potential rock climbing area. Access from Mission Gorge Road would be a right turn in and right turn out only.

Mission Gorge Road functions as a four-lane major arterial roadway with relatively few local access points between Jackson Drive and the Santee City limits to the east. Typically the roadway has six lanes, three in each direction, with some exceptions in downhill portions where there are sometimes two lanes in one direction. The directional traffic volume on this portion of Mission Gorge Road in early 2014 was measured at 11,340 ADT going eastbound during weekdays. On weekends, traffic volume drops to 8,440 ADT eastbound. This volume is consistent with the City's classification for a four-lane major road.

For purposes of this analysis, it is assumed that 16 vehicles would be accommodated at this site. Assuming all 16 vehicle spaces turn over four times a day, this represents up to 64 additional vehicles traveling on eastbound Mission Gorge Road. If all of these trips make a U-turn and return in

the westbound direction to access the parking area, a total of 128 vehicles are added to the roadway each day. In the peak hour, it is assumed that 16 vehicles maximum would arrive or depart in an hour since the average visit is expected to last more than one hour.

The estimated trip generation of 128 ADT and 16 hourly trips during the peak hour on Mission Gorge Road is below the City's threshold for requiring further analysis of traffic impacts. As the trips are below the City's threshold, it is unlikely that these trips would result in any noticeable delay on area roads, or exceed any established level of service (LOS) standards.

### **c. Mesa Road**

MPU Recommendation CM-F3 would provide for improvements to the disturbed shoulder within the public right-of-way along Mesa Road near Big Rock Park in the Cowles Mountain area, in collaboration with the City of Santee. These improvements would provide for new diagonal parking spaces and a linear bike skills area. Mesa Road is a two-lane local road leading southward towards its present terminus at the boundary of the Park. The City of Santee classifies the street as a residential collector. Traffic volumes on Mesa Road, south of Prospect Avenue are approximately 630 ADT on weekdays and weekends.

For purposes of this analysis, it is assumed the parking area would accommodate up to 74 diagonal parking spaces along the edge of an improved Mesa Road. The configuration of the parking spaces would be determined during the planning and design of the project in collaboration with the City of Santee. This number of parking spaces is estimated to generate approximately 592 ADT along Mesa Road at this location. As a result, trip volumes on Mesa Road would nearly double. Although this estimate of traffic generation is worst case scenario, it falls below the City's thresholds requiring further traffic analysis. In addition, the 592 ADT estimate does not account for the traffic associated with approximately 25 vehicles that can now legally park along the Mesa Road frontage. As a result, the net increase in parking capacity would be closer to 50 spaces, with an associated trip generation closer to 400 ADT. In addition, based on observations of low use of the parking area during the course of this study, it appears unlikely that the parking area would be filled to its maximum capacity as was assumed in generating these trip estimates. For these reasons, it is unlikely that the parking area would result in any noticeable delay or exceed any established LOS standards.

### **d. Father Junipero Serra Trail**

MPU Recommendation MG-F6 would provide for a parking area on the easterly side of Father Junipero Serra Trail in the Mission Gorge area, between Mission Gorge Road and the Visitor and Interpretive Center driveway entrance. This parking area would only be constructed if warranted by a parking study, as recommended in Facility Recommendation MG-F5.

Father Junipero Serra Trail extends from Mission Gorge Road on the west near Jackson Drive in the City of San Diego to eventually rejoin Mission Gorge Road in Santee to the east. A gate restricts traffic easterly beyond the visitor center to daytime hours and only in the eastbound direction as a one-way roadway. A 600-foot portion of Father Junipero Serra Trail, south of the Visitor Center, is traversable in two directions. This portion of the road is comprised of two lanes, approximately 36 feet wide, with parking allowed along the shoulders.

Recent traffic counts (2014) show that the weekday traffic on Father Junipero Serra Trail is 2,190 ADT in both directions rising to 3,500 ADT on weekends between Mission Gorge Road and the Visitor Center. For purposes of this analysis, it is assumed that 76 spaces would be accommodated at the proposed area. The addition of 76 spaces could add as many as eight times the number of spaces, or 608 trips per day, assuming each parking space turns over four times during the day. During a one-hour period, as many as 76 additional trips could be expected, assuming each visit lasts at least an hour.

As the Father Junipero Serra Trail is essentially a park road that is not classified in the Navajo Community Plan or in the City's normal scheme of road classifications, there is no codified limit on the amount of traffic it is intended to support. This portion of Father Junipero Trail south of the Visitor Center essentially acts as a driveway accessing the parking lot at the Visitor Center and the low-speed scenic drive through the gorge area along the river. This roadway is not intended to support large volumes of traffic at high speeds. Any increase in traffic would likely be a result of Park users accessing the Park and nearby parking areas, which is the intended use of the roadway. In addition, the traffic generated by the additional parking spaces would generally accommodate, rather than generate, new traffic. As a result, it is unlikely that the proposed parking area would result in any noticeable delay on area roads, or exceed any established LOS standards.

## Issue 2: Circulation and Access

*Would implementation of the Plans and associated discretionary actions create alterations to present circulation movements in the area including effects on existing public access points?*

The NRMP would have no impact with regards to alterations to circulation movements or effects on access points, as management actions such as hand weeding, exclusionary fencing, and erosion control would not result in any activities that would affect traffic movements or access on area roads.

As previously detailed, MPU recommendations conceptually identify trails, shade structures, benches, picnic areas, and other related facilities as subsequent projects. As these types of subsequent projects would be located within Park boundaries and away from area roads, they would generally not have the potential to adversely affect circulation movements or public access points. However, several MPU recommendations are proposed (CM-F1, CM-F2, CM-F3, MG-F6) that would provide for new or modified access points off of area roads to provide access to proposed parking areas. These new access points could adversely affect circulation movements in the area.

MPU Recommendation CM-F2 would provide a new access point from Mission Gorge Road to access the recommended off-street parking area. As this parking area would take access off an arterial roadway, with high speeds (55 miles per hour), the access could adversely affect circulation on Mission Gorge Road. MPU Recommendation CM-F3 would provide for improvements to the disturbed shoulder along Mesa Road near Big Rock Park, in collaboration with the City of Santee. These improvements would alter an existing parking area and would result in a new parking configuration that could affect existing circulation. In addition, the proximity of the parking area and the bike skills area could create conflicts affecting circulation in this area.

Because of this program-level analysis, and conceptual nature of subsequent projects, it cannot be determined whether these parking areas and access points would be designed in such a manner that they would not adversely affect existing circulation or access, or create hazards or barriers for pedestrian or bicyclists. Issues relative to access and design would require further analysis at a project-level when future projects are proposed. For these reasons, impacts would be significant (**Impact TRAF-1**) and mitigation is required.

### Issue 3: Parking

*Would implementation of the Plans and associated discretionary actions impact the availability of parking?*

Based on the City's 2016 Significance Determination Thresholds, impacts related to traffic and circulation would be significant if implementation of the Plans would:

1. Result in a parking shortfall or displacement of existing parking that would substantially affect the availability of parking in an adjacent residential area, including the availability of public parking.
2. Severely impede the accessibility of a public facility such as a park or a beach.

The NRMP would have a less than significant impact with regards to parking availability, as management actions such as hand weeding, exclusionary fencing, and erosion control would not block existing parking areas and would not require a substantial increase in Park personnel or volunteers that would occupy parking areas. The MPU is analyzed below.

Various MPU recommendations identify subsequent projects such as recreational amenities (e.g., shade structures, benches, picnic areas, trail improvements) and parking areas that could attract and accommodate additional visitors to the Park. While new recreational amenities such as park benches, restrooms, trail construction, and shade structures could attract more visitors to the Park, any increase in Park use would likely occur with or without these Park improvements, based on regional growth and the overall demand for parks. This increased demand for Parks increases the demand for parking. The focus of the analysis is on the new parking facilities recommended in the MPU (see Figure 5.11-7).

The Barker Way parking area (MPU Recommendation CM-F1) would provide off-street gravel or decomposed granite surfaced parking area for approximately 36 vehicles. This parking area is intended to reduce some of the parking demand on the local residential streets and would not displace existing parking opportunities. Currently, visitors parking to hike in the Park will typically park on the surrounding residential streets, both on the west and east sides of the street adjacent to residences. As this parking area would reduce the demand for parking within residential areas by providing a dedicated off-street parking area, it would improve an existing condition. In addition, the added parking spaces would improve accessibility to the Park.

The parking areas at Mission Gorge Road (MPU Recommendation CM-F2) and Father Junipero Serra Trail (MPU Recommendation MG-F6) would provide new parking areas for approximately 92 vehicles. These parking areas would not displace existing parking. In addition, the Father Junipero

Serra Trail parking area would reduce existing parking demand in the residential areas across Mission Gorge Road and eliminate an existing safety hazard that results when Park users illegally cross Mission Gorge Road on foot to access the park. These parking areas would also improve accessibility to the Park.

MPU Recommendation CM-F3 would provide for improvements to the disturbed shoulder along Mesa Road near Big Rock Park. The existing 25 parking spaces would be displaced by a total of 74 spaces, resulting in a net gain of approximately 50 spaces. This improvement would increase accessibility to the Park by providing a net increase in parking spaces. Parking would not adversely impact surrounding residences as the parking facilities would be on the west side of Mesa Road, not adjacent to residences.

## Issue 4: Alternative Transportation

*Would the Plans conflict with the adopted policies, plans, or programs supporting alternative transportation modes (e.g., bus turnouts, trolley extensions, bicycle lanes, bicycle racks, etc.)?*

The NRMP would not conflict with adopted policies, plans, or programs supporting alternative transportation modes, as the management actions such as hand weeding, exclusionary fencing, and erosion control would not create any barriers to implementation of such policies and plans.

Some MPU recommendations identified as subsequent projects include recreational amenities such as shade structures, benches, picnic areas, and parking areas that could attract and accommodate additional visitors to the Park, but would not conflict with policies supporting alternative transportation.

Other MPU recommendations propose to construct or improve trails that would support hiking, biking, and equestrian uses and would support policies related to alternative transportation modes. In addition, MPU Park-wide Planning Recommendation 4 states: "Incorporate trail linkages and public recreation into new developments adjacent to the Park." This recommendation would improve trail connectivity in the region by ensuring new developments have opportunities to access Park trails.

In addition, MPU Park-wide Planning Recommendation 17 states to "Coordinate with the Cities of San Diego and Santee and SANDAG to determine the feasibility of providing a bus stop at one or more locations near the Park." This recommendation would directly support alternative transportation modes by identifying opportunities to extend bus service to more locations near the Park.

## 5.11.5 Significance of Impacts

### Issue 1: Capacity

Subsequent projects implemented in accordance with the MPU, such as trails, park benches, and restrooms, would not attract a significant number of new visitors to the Park that would in turn result in a substantial increase in traffic. Other subsequent projects, such as the parking areas,

would not result in a substantial increase in traffic in relation to the capacity of the existing circulation system because these parking areas would generally be traffic accommodating, rather than traffic generating. In addition, the estimated traffic volumes do not exceed established thresholds that generally trigger the need for a further traffic analysis. Based on these factors, it is not anticipated that subsequent projects implemented in accordance with the MPU would result in a substantial increase in traffic in relation to the capacity of the existing circulation system. Impacts would be less than significant.

## Issue 2: Circulation and Access

Subsequent projects implemented in accordance with the MPU could create alterations to present circulation movements due to the creation of new access points from area roads to provide for new off-street parking areas. As detailed plans for these subsequent projects are not available at this time, it cannot be guaranteed that they would be designed in a manner that would avoid significant circulation and access impacts. Therefore, impacts would be significant (**Impact TRAF-1**) and mitigation is required.

## Issue 3: Parking

As the recommended parking areas would improve accessibility to the Park by providing additional parking areas, these recommendations would have an overall parking benefit. In addition, the parking areas would reduce current demand for parking on local residential streets. As a result, impacts related to parking would be less than significant.

## Issue 4: Alternative Transportation

Implementation of the MPU would be consistent with existing policies supporting alternative transportation modes. Various MPU recommendations would support alternative modes of transportation and would not create a conflict with existing plans or policies. Therefore, impacts would be less than significant.

### 5.11.6 Mitigation Framework

Subsequent projects implemented in accordance with the Plans and associated discretionary actions would require further evaluation at the project-level to determine project specific impacts and mitigation. The following Mitigation Framework would be applied to address **Impact TRAF-1**.

**MM-TRAF-1:** Subsequent projects implemented in accordance with the MPU that would have the potential to alter existing circulation or affect existing access points, including (but not necessarily limited to) MPU Facility Recommendations CM-F1, CM-F2, CM-F3, and MG-F6 shall be required to submit the necessary analysis, design plans, and any other requirements pursuant to the discretion of the City's Engineer. Measures that shall be considered during subsequent project review to minimize potential impacts from pedestrian/bicyclist/vehicle conflicts and to enhance circulation include (but not necessarily limited to):

- Appropriate signage
- Review for adequate sight distance, preparation of sight distance studies, and mitigation, where needed
- Road striping
- Crosswalks, where needed
- Sidewalks and pathways for pedestrian access
- Bollards

### **5.11.7 Significance after Mitigation**

Although implementation of the Plans and associated discretionary actions would have the potential to result in significant impacts related to circulation and access, subsequent projects such as parking areas would be required to implement **MM-TRAF-1** prior to implementation. The Mitigation Framework requires site-specific environmental review, analysis of potential impacts, and implementation of measures to reduce significant impacts to below a level of significance.

## 5.12 Public Services

This section discusses public services serving the communities surrounding the study area, such as fire protection and police services, schools, parks and libraries, and describes the potential impacts that could result from implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park).

### 5.12.1 Regulatory Framework

Section 17620 of the California Education Code authorizes school districts to collect fees to mitigate the impact of new development on enrollment in a school district. The State Allocation Board determines the maximum level of fees a district can levy for residential and commercial/industrial development. Government Code Section 65996 also recites that the development fees authorized by Senate Bill (SB) 50 are deemed to be "full and complete school facilities mitigation" for the purposes of the California Environmental Quality Act (CEQA) or for any other reason.

The City of San Diego's (City's) Municipal Code identifies the San Diego Police Department (SDPD) as responsible for maintaining peace and order within the City (Section 22.0601). The Municipal Code fire protection and prevention ordinance adopted the 2010 California Fire Code in regards to emergency planning and preparedness (Section 55.0101).

The City's General Plan (2008a) also details response time objectives for the fire and police departments, which are based on national standards. For example, the total response time for deployment and arrival of the first-in engine company for fire suppression incidents should be within 4 minutes 90 percent of the time. For police services, SDPD has average response time guidelines as follows:

- Priority E Calls (imminent threat to life) within 7 minutes.
- Priority 1 Calls (serious crimes in progress) within 14 minutes.
- Priority 2 Calls (less serious crimes with no threat to life) within 27 minutes.
- Priority 3 Calls (minor crimes/requests that are not urgent) within 70 minutes.
- Priority 4 Calls (minor requests for police service) within 70 minutes (SDPD 2016).

### 5.12.2 Environmental Setting

#### 5.12.1.1 Fire Protection

The study area is primarily served by the SDFD. The SDFD service area covers approximately 331 square miles and serves a population of approximately 1,337,000 people. SDFD has a total of 47 fire stations (City of San Diego 2014a). The San Diego Fire Department (SDFD) stations closest to the Park proposed

expansion areas include Station 34 located at 6565 Cowles Mountain Boulevard, Station 31 located at 6002 Camino Rico Road, and Station 39 located at 4949 La Cuenta Drive.

In addition to fighting fires SDFD responds to medical emergency calls, and SDFD's Fire Prevention Bureau conducts over 20,000 annual inspections and issues fire code permits (alarms, hazardous materials, special events) while developing safety policies and guidelines for residents and businesses. The City strives to provide an average maximum initial response time of no more than 5 minutes.

Citywide fire service goals, policies, and standards are located in the Public Facilities, Services, and Safety Element of the General Plan and the Fire-Rescue Services Department's Fire Service Standards of Response Coverage Deployment Study.

Response time standards are provided in the General Plan Public Facilities, Services and Safety Element and summarized below:

- a. To treat medical patients and control small fires, the first-due unit should arrive within 7.5 minutes, 90 percent of the time from the receipt of the 911 call in fire dispatch. This equates to one-minute dispatch time, 1.5 minutes company turnout time and 5-minute drive time in the most populated areas.
- b. To provide an effective response force for serious emergencies, a multiple-unit response of at least 17 personnel should arrive within 10.5 minutes from the time of 911-call receipt in fire dispatch, 90 percent of the time.
  - This response is designed to confine fires near the room of origin, to stop wildland fires to under 3 acres when noticed promptly, and to treat up to 5 medical patients at once.
  - This equates to 1-minute dispatch time, 1.5 minutes company turnout time, and 8-minute drive time spacing for multiple units in the most populated areas.

To direct fire station location timing and crew size planning as the community grows, fire unit deployment performance measures are established based on population density zones and are shown in Table 5.12-1, below.

<b>Table 5-12-1 Deployment Measures to Address Future Growth by Population Density per Square Mile</b>				
	Structure Fire Urban Area >1,000-people/ sq. mi.	Structure Fire Rural Area 1,000 to 500 people/sq. mi.	Structure Fire Remote Area 500 to 50 people/sq. mi. *	Wildfires Populated Areas Permanent open space areas
1 <sup>st</sup> Due Travel Time	5	12	20	10
Total Reflex Time	7.5	14.5	22.5	12.5
1 <sup>st</sup> Alarm Travel Time	8	16	24	15
1 <sup>st</sup> Alarm Total Reflex	10.5	18.5	26.5	17.5
NOTE: Reflect time is the total time from receipt of a 9-1-1 call to arrival of the required number of emergency units				
SOURCE: City of San Diego General Plan 2008a.				

The following population-based performance measures are used to plan for needed facilities. Where more than 1 square mile is not populated at similar densities, and/or a contiguous area with different zoning types aggregates into a population “cluster,” these measures guide the determination of response time measures (Table 5-12-2) and the need for fire stations:

Area	Aggregate Population	First-Due Unit Travel Time Goal
Metropolitan	> 200,000 people	4 minutes
Urban-Suburban	< 200,000 people	5 minutes
Rural	500 - 1,000 people	12 minutes
Remote	< 500	> 15 minutes

SOURCE: City of San Diego General Plan 2008a.

The jurisdictions of Poway, Santee, La Mesa, El Cajon, and the County of San Diego are adjacent to the project area. The northeast portion of the Cowles Mountain area is located in the City of Santee. While the majority of the project boundary is within the boundaries of the SDFD, mutual aid agreements exist between the fire agencies serving the affected jurisdictions to ensure adequate service provision. The City of Santee operates two fire stations located at 8950 Cottonwood Avenue and 9130 Carlton Oaks Drive, east of the project area (City of Santee 2014a).

The Cities of El Cajon, La Mesa, and Lemon Grove maintain a joint exercise of powers agreement for management and delivery of fire protection and emergency medical services. This management team is known as Heartland Fire & Rescue. The City of La Mesa Fire Department consists of three stations: Station 11 located at 8034 Allison Avenue, Station 12 located at 8844 Dallas Street, and Station 13 located at 9110 Grossmont Boulevard. The City of Poway Fire Department personnel respond from one of three stations located at 13050 Community Road, 16912 Westling Court, and 14322 Pomerado Road.

### 5.12.1.2 Police Protection

The Eastern Division of the SDPD serves a population of 155,892 people and encompasses 47.1 square miles, serving the majority of the study area, except the West Sycamore area, which is served by Northeastern Division, Beat 245. The Eastern Division SDPD station is located at 9225 Aero Drive and is staffed with 86 sworn personnel and 1 civilian employee. The Eastern Division currently deploys a minimum of 9 patrol officers on first watch, 11 patrol officers on second watch, and 8 patrol officers on third watch. The Northeastern Division SDPD station is located at 13396 Salmon River Road and is staffed with 68 sworn personnel and 1 civilian employee. The Eastern Division currently deploys a minimum of 9 patrol officers on first watch, 11 patrol officers on second watch, and 7 patrol officers on third watch. SDPD Beats 312, 324, and 325 serve the communities of Tierrasanta, Lake Murray, and San Carlos, respectively.

East of the study area, the San Diego County Sheriff's Department provides law enforcement services to the City of Santee, with a substation located at 8811 Cuyamaca Street (City of Santee 2014b). In addition, the SDPD has mutual aid agreements with all other law enforcement agencies in San Diego County. The

City of Poway, located north of the West Sycamore area, contracts with the San Diego County Sheriff's Department for services in law enforcement.

Based on performance goals published in the City's budget documents, the goal citywide is to maintain 1.48 officers per 1,000 population ratio. SDPD is currently reaching a staffing ratio of 1.36 sworn officers per 1,000 residents based on a 2015 residential population estimate of 1,311,882 (SDPD 2016). Beginning in fiscal year 2010, the police department experienced significant reductions in budgeted staffing levels in order to address an ongoing General Fund budget deficit. In fiscal year 2013, the police department developed a Five-Year Plan to restore service areas adversely impacted by these prior budget reductions. The budget added 35.33 full-time equivalent sworn positions and included a total of \$7.3 million in additional expenditures for police officer hiring and retention (City of San Diego 2014b).

### **5.12.1.3 Schools**

There are no schools located within the boundaries of the study area. The surrounding communities are served by schools within the San Diego Unified School District, Santee School District, and the Poway Unified School District. The Tierrasanta Community Planning Area (CPA) is served by four elementary schools, one junior high school, and one high school. The Navajo CPA is served by ten elementary schools, two junior high schools, one high school, and three private schools. Within the East Elliott CPA, there are currently no schools as the area consists primarily of open space and a landfill. An elementary school within the Poway Unified School District is planned in the Sycamore Estates portion of the Rancho Encantada Precise Plan area, near the West Sycamore area. The Santee School District operates 10 schools serving the communities east of the Park within the City of Santee.

### **5.12.1.4 Parks and Recreation**

There are three categories of recreation that constitute the City's municipal park system: resource-based parks, open space lands, and population-based parks. Resource-based parks are intended to serve residents and visitors and are located at, or centered on, notable natural or human-made features and can provide habitat and resource protection. There are two types of resource-based parks: regional parks, shoreline parks and beaches. Regional parks, such as the Park itself, are administered by a master plan, while shoreline parks and beaches do not typically have master plans. Open space parks are City-owned lands that provide habitat protection. Population-based parks serve the active and passive recreational needs of a neighborhood and community and are located ideally within walking distance or near residential land use. The General Plan recommends that population-based parks provide a minimum ratio of 2.8 useable acres per 1,000 residents.

The City's Park and Recreation Department maintains more than 40,000 acres of developed and undeveloped open space and parkland categorized as population-based parks, resource-based parks, and open space. The physical facilities, plus classes, programs, and activities at these facilities constitute San Diego's municipal recreation system.

### **5.12.1.5 Libraries**

There are numerous libraries located in the communities surrounding the study area. The Scripps Ranch Branch Library located at 10301 Scripps Lake Drive serves the population surrounding the West

Sycamore area. The Navajo CPA is served by the San Carlos Library located at 7265 Jackson Drive and the Benjamin Library located at 5188 Zion Avenue. The Tierrasanta Library located at 4985 La Cuenta Drive serves the Tierrasanta CPA. The Santee Public Library located at 9225 Carlton Hills Boulevard serves residents of the City of Santee.

### 5.12.3 Significance Determination Thresholds

Based on the City's 2016 Significance Determination Thresholds that have been adapted for purposes of a programmatic analysis, a significant public services impact would occur if implementation of the Plans and associated discretionary actions would:

1. Promote growth patterns resulting in the need for and/or provision of new or physically altered public facilities, the construction of which could cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives.

### 5.12.4 Impact Analysis

#### Issue 1: Public Facilities

*Would implementation of the Plans and associated discretionary actions promote growth patterns resulting in the need for and/or provision of new or physically altered public facilities, the construction of which could cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives?*

The NRMP would have no impact with regards to public services, as management actions such as hand weeding, exclusionary fencing, and erosion control would not generate population or otherwise increase the demand for public services. The MPU is analyzed below.

As discussed in Chapter 3, Project Description, the MPU does not propose specific development at this time. It does, however, conceptually discuss proposed recreational amenities (e.g., shade structures, benches, picnic areas, trail improvements) and parking areas as subsequent projects that could attract and accommodate additional visitors to the Park. The MPU would not result in a direct increase in population, as no habitable structures involving residential or other related uses would occur. Therefore, no direct impact related to schools or libraries would occur. Potential indirect impacts related to police services, fire protection services, and parks are detailed below.

With regards to police services, SDPD Eastern and Northeastern Divisions, Beats 312, 324, and 325 would continue to serve the study area. The San Diego County Sheriff's Department will continue to provide law enforcement services within the areas of the Park in the City of Santee and City of Poway. The Law Enforcement Mutual Aid Plan, which permits the SDPD's Chief of Police to order law enforcement mutual aid services from other jurisdictions, will continue to be in effect. A comparison of the police department's citywide response time goals and the 2015 average response times within Beats 245, 312, and 325 are presented in Table 5.12-3, which shows that all three beats are currently exceeding the Citywide response time goals. Development of recreational amenities in accordance with the MPU could potentially increase the number of visitors to the Park. However, it is not anticipated that

the increase in the number of visitors would be large enough to substantially increase the need for police services from that associated with current use of the Park. Recreational amenities and trail improvements would be developed over time, and would not likely attract a significant new amount of visitors due to any specific subsequent project. Additionally, police response times within these three Beats would likely increase due to build-out of the community plans and additional traffic generated by new growth independent of the Project. Therefore, the Project would not increase response times beyond those presented in Table 5.12-3, and indirect impacts associated with the provision of police services and facilities would be less than significant.

	Citywide Goal	Beat 245	Beat 312	Beat 324
Emergency	7	12.8	8.5	10.4
Priority 1	14	21.8	18.6	20
Priority 2	27	39.2	43.8	47.3
Priority 3	70	69.3	99.6	93.1
Priority 4	70	328.8	211.3	184

SOURCE: SDPD 2016.

With regards to fire protection services, development of recreational amenities could potentially increase the number of visitors to the Park, thereby increasing the potential for human-induced wildfire, or increase the number of emergency calls if users require emergency evacuation as a result of an injury. Various MPU recommendations are intended to minimize indirect impacts, particularly on fire services as further described below.

MPU Park-wide Facility Recommendation 13 states "Continue to prohibit fires in the park to reduce fire danger, except within developed fire rings at the Kumeyaay Lake Campground, the East Fortuna Staging Area, and Lake Murray." This policy would continue to restrict fires within the Park to minimize fire hazards. MPU Recommendation CM-R17 addresses the need to prepare emergency response plans in coordination with emergency responders if a new rock climbing access area and trail to the western face of Pyles Peak is provided: "If the staging area in CM-F2 and the trail in CM-R12 are implemented, evaluate providing rock climbing access to the western face of Pyles Peak by constructing a new trail from the existing Pyles Peak trail...and an emergency response plan will need to be coordinated with San Diego Fire and Rescue." The MPU includes other recommendations to close and restore unauthorized trails (see Section 5, Recommendations of the MPU). These efforts could reduce the potential for Park users to become injured or lost from using unmarked and unmaintained trails.

All of these MPU recommendations would serve to ensure that activities within the Park would not substantially increase the calls to fire and emergency responders serving the study area. Indirect impacts related to fire protection services and facilities would therefore be less than significant.

With regards to park services, the Park would continue to function as a regional park, as defined in the City's General Plan. The MPU aims to provide for continued management and improvements to the Park and additional recreational amenities for City residents through the proposed expansion areas and recreational amenities within the park. Potential impacts from facilities, trails, and other Park amenities are analyzed throughout this Program Environmental Impact Report at the program-level; subsequent

projects implemented in accordance with the MPU would be analyzed under CEQA at the project-level. Therefore, as the project would provide for increased recreational opportunities and not result in growth that would further burden existing parks, impacts would be less than significant.

### **5.12.5 Significance of Impacts**

Implementation of the Plans and associated discretionary actions would not result in an increase in population; therefore, no direct impact associated with the construction of public facilities would occur. Recreational amenities and trail improvements would be developed over time, and would not likely attract a significant new amount of visitors due to any specific subsequent project. In addition, numerous MPU recommendations serve to reduce other potential indirect impacts. Therefore, indirect impacts related to new facilities for police services, fire protection services, and parks would be less than significant.

### **5.12.6 Mitigation Framework**

Impacts associated with fire, police services, schools, parkland, and libraries would be less than significant; therefore, no mitigation is required.

## 5.13 Public Utilities

This section addresses potential impacts to utilities and the environment based on the potential need to provide new or improved utility connections and services due to implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). The information contained in this section is based on the utilities easement review technical study (Appendix I), in addition to information contained within the MPU. Utility services addressed include water, wastewater, reclaimed water, electrical transmission, solid waste, storm water infrastructure, communications, and gas pipelines.

### 5.13.1 Regulatory Framework

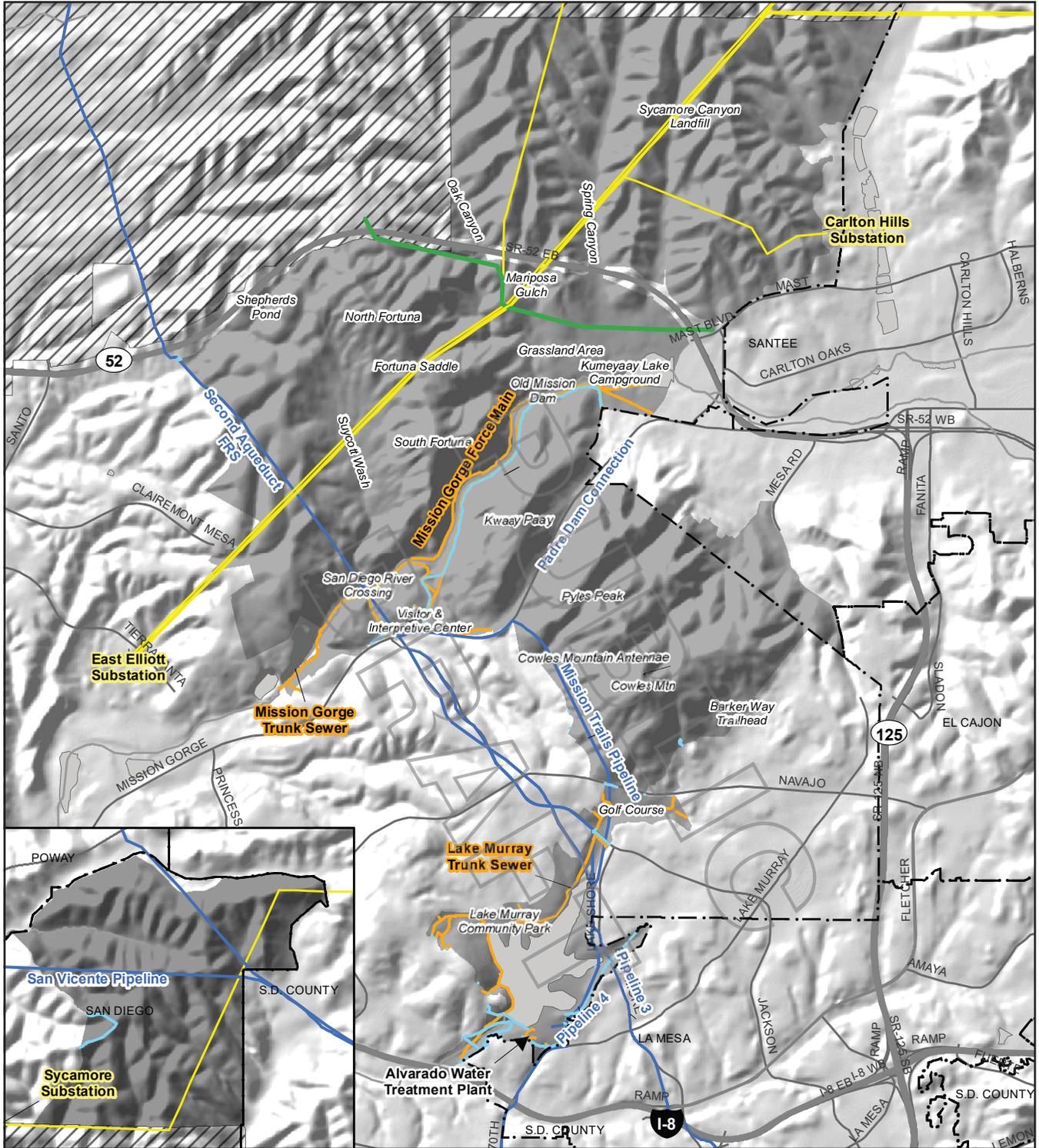
There are no applicable federal or state regulations applicable to this issue. Local regulations are detailed below.

#### 5.13.1.1 Countywide Siting Element

The Countywide Siting Element is a planning document that details the solid waste management needs of the region, including the existing shortage of disposal capacity, and presents strategies for responding to this shortfall, including increasing the waste diversion rate. The City of San Diego's (City's) Source Reduction and Recycling Element, as updated in annual reports, details the City's strategy for achieving this mandate, relying largely on the voluntary efforts of the community. Although solid waste management involves building and operating landfills, it also requires a diversity of strategies to reduce and manage waste.

#### 5.13.1.2 City Municipal Code

The Municipal Code incorporates the Construction and Demolition (C&D) Debris Diversion Deposit Program (C&D Ordinance), Recycling Ordinance, and Refuse and Recyclable Materials Storage Regulations in an effort to meet its goals and polices regarding waste management and diversion. The C&D Ordinance requires that the majority of construction, demolition, and remodeling projects requiring building, combination and demolition permits pay a refundable C&D Debris Recycling Deposit and divert their debris by recycling, reusing or donating usable materials. The ordinance is designed to keep C&D materials out of local landfills and ensure they get recycled.



**Legend**

- |                                   |                                   |                        |
|-----------------------------------|-----------------------------------|------------------------|
| Municipal Boundaries              | <b>Utility/High Voltage Lines</b> | Trunk Sewer/Force Main |
| MCAS Miramar                      | Electric Lines                    | Water Supply Pipelines |
| MTRP Boundary and Expansion Areas | High Pressure Gas Main            | Water Mains            |

**FIGURE 5.13-1**  
Major Utilities

### 5.13.1.3 Public Utilities Department

The City's Public Utilities Department (PUD) has utilities throughout the study area (Figure 5.13-1). Discharges of raw sewage into the River caused by blocked or overflowing sewer mains have been a major problem in the past and continue to this day in spite of the best efforts of the City to prevent such occurrences. In 2001, the Metropolitan Wastewater Department (now PUD) initiated a Sewer Spill Reduction Program funded by sewer rate increases. This program includes cleaning and inspecting thousands of miles of sewer as well as accelerating the replacement and rehabilitation of older facilities. General guidance for sewer facility replacement and management in environmentally sensitive lands is provided by City Council Policies 400-13 and 400-14, both adopted in January 2002. Council Policy 400-14 makes the redirection of sewer flow away from environmentally sensitive lands a priority.

To protect the City's utilities, encroachments into utility easements are allowed as follows:

*General Landscape:* Planting or seeding over sewer lines located within Open Space or ESL shall be as follows:

- No trees shall be planted within 10 feet of any sewer main or lateral.
- No shrubs that mature over 5 feet in height shall be planted within 5 feet of any sewer main or lateral.

*Threatened or Endangered Plants:* No threatened or endangered plant species shall be planted or seeded on sewer access paths, within 3 feet of the edge of access paths, or within 10 feet of sewer mains or lines.

*Landscape for Access Paths in Environmentally Sensitive Areas:* Trees or shrubs that mature over 3 feet in height shall not be planted on the sewer access paths, and shrubs that will overgrow the access paths shall not be planted adjacent to the edges of the path area. Planting on the paths must be consistent with the approved planting palette included in the MPU. Additional or alternate plant species not included may be approved by the PUD, Environmental Permitting Section.

## 5.13.2 Environmental Setting

### 5.13.2.1 Water Supply Facilities

The San Diego County Water Authority (SDCWA) operates several pipelines and associated facilities that traverse five of the six areas of the Park: San Vicente Pipeline, Pipelines 3 and 4, Scripps Ranch Pipeline, and the Mission Trails Pipeline. Details of these pipelines are provided below and shown on Figure 5.13-1. Only the East Elliott area does not contain any water pipelines.

- The San Vicente Pipeline consists of 11 miles of 8.5-foot diameter pipeline. The pipeline runs from the San Vicente Reservoir in Lakeside through the West Sycamore area ending at the SDCWA Second Aqueduct west of Interstate 15.
- Pipeline 3, consists of 1 mile of 72-inch diameter pipeline in Baltimore Drive passing through the Lake Murray area.

- Pipeline 4, consists of 3 miles of 72-inch diameter pipeline beginning north of State Route 52 (SR-52) and crossing under SR-52 in a southeasterly direction on the eastern edge of the community of Tierrasanta, passing into the Park, crossing through Mission Gorge Road and Jackson Drive in the community of San Carlos, reentering the Park in the Lake Murray area, traversing east of the lake and continuing south of Interstate 8.
- The Scripps Ranch Pipeline connects to the Mission Trails Pipeline at SR-52 and delivers treated water to the Padre Dam Municipal Water District through a connection near Mission Gorge Road before turning south again into a tunnel along the edge the Cowles Mountain area and to the Alvarado Water Treatment Plant.
- The Mission Trails Pipeline traverses the southwestern flanks of Cowles Mountain and consists of 1 mile of 96-inch diameter welded steel pipeline flowing through the Second Aqueduct. The Mission Trails Second Aqueduct Flow Regulatory Structure I is located along the Mission Trails Pipeline near the western ridgeline in the Fortuna Mountain Area and delivers water from the Twin Oaks Valley Diversion structure to the Alvarado Water Treatment Plant.

The City's PUD 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. City PUD also operates the Alvarado Water Treatment Plant which provides drinking water to customers in the City. The treatment plant capacity is 120 million gallons of treated drinking water per day, up to 200 million gallons per day.

### **5.13.2.2 Wastewater Facilities**

The City's PUD operates and maintains major sewer facilities in the Park including the Lake Murray Trunk Sewer, Mission Gorge Trunk Sewer, and associated sewer mains (see Figure 5.13-1).

- The Lake Murray Trunk Sewer is located along the west side of Murray Reservoir and runs under the Lake Murray Trail, Lake Murray Community Park, and the existing golf course within the Lake Murray area. The northern end of the pipeline lies under Jackson Drive, ending near Cowles Mountain Boulevard. The southern end of the pipeline is south of Murray Dam. The trunk sewer consists of nearly 3 miles of 18-inch to 27-inch diameter durable plastic sewer mains.
- The Mission Gorge Trunk Sewer is located along the west side of the San Diego River through the Mission Gorge area and consists of 7 miles of 48-inch diameter steel pipe. The northern end of the pipeline lies under Father Junipero Serra Trail, ending near Kumeyaay Campground. The southern end of the pipeline is north of Mission Gorge Road.

### **5.13.2.3 Electrical Transmission and Gas Facilities**

Several San Diego Gas & Electric (SDG&E) electrical transmission lines traverse portions of the park. In addition, there are numerous locations in the study area where SDG&E lower voltage lines cross primary overhead power lines. These overhead power lines interconnect to three electrical substations located just outside of the Park, referred to as the Elliott, Sycamore, and Carlton Hills substations. The location of the high-voltage transmission lines and area substations are found on Figure 5.13-1.

SDG&E has a major high-pressure gas transmission line that runs from the main system backbone near east of Interstate 15 through Miramar across SR-52 into the Park in the Fortuna Mountain area. The line continues east through the northern Fortuna Mountain area to the East Fortuna Staging Area. This line provides gas to the cities of La Mesa and El Cajon.

### 5.13.2.4 Solid Waste Facilities

The City's Environmental Services Department does not provide solid waste collection services for the Park. All solid waste generated at and deposited in refuse containers within the Park boundaries are collected by Park personnel and disposed of at area solid waste facilities. There are currently four solid waste disposal facilities that accept municipal solid waste, along with a number of privately operated transfer stations and recycling facilities. Sycamore Canyon, Otay Annex, and Borrego Springs landfills are all privately owned and operated by Allied Waste Industries, Inc.; West Miramar Landfill is owned and operated by the City. Table 5.13-1 shows the permitted remaining capacity and estimated closure date for each of these facilities. The Sycamore Canyon Landfill is within the East Elliott area.

Solid Waste Facilities	Permitted Remaining Capacity (cubic yards)	Projected Closure Date
West Miramar Landfill	14,846,602	2022
Sycamore Canyon Landfill	42,246,551	2031
Otay Landfill	24,514,904	2028
Borrego Landfill	478,836	2030
SOURCE: CalRecycle Solid Waste Information System 2014.		

### 5.13.2.5 Storm Water Infrastructure

A majority of the storm water drainage within the study area flows over natural surfaces and drainages within the Park. However, several structural storm water drainage facilities are located at the following locations:

- At the southern end of the Mission Gorge subarea along Mission Gorge Road;
- At the south and southeast sides of the Cowles Mountain subarea along Golfcrest Drive, Navajo Road, and Barker Way; and
- At the northern end of the Lake Murray subarea along Murray Park Road and Jackson Drive, through the Mission Trails Golf Course and Lake Murray Park.

### 5.13.2.6 Communication Facilities

A major communication facility with receiving and transmitting antennas is located at the top of Cowles Mountain. Antennas are owned by both the City and the County of San Diego. Communications systems for telephone, computers, and cable television are limited within the Park.

### 5.13.3 Significance Determination Thresholds

Based on the City's 2016 Significance Determination Thresholds, that have been adapted for purposes of a programmatic analysis, impacts related to public utilities would be significant if implementation of the Plans and associated discretionary actions would:

1. Result in a need for new utilities, or require substantial alterations to existing utilities, including water and wastewater infrastructure, electricity and gas transmission lines, storm water drainage systems, solid waste disposal facilities, or communication systems, the construction of which would create a physical effect on the environment.

#### Issue 1: Utilities

*Would implementation of the Plans and associated discretionary actions result in the need for new utilities or require substantial alterations to existing utilities including water and wastewater infrastructure, electricity and gas transmission lines, storm water drainage systems, solid waste disposal facilities, or communication systems, the construction of which would create a physical effect on the environment?*

The NRMP would not result in the need for new utilities systems, nor would it require substantial alterations to existing utilities. Any water requirements that may be required during implementation of subsequent projects identified by the NRMP, such as watering for dust control or during revegetation activities, could be provided with existing water infrastructure, or through portable supplies, such as trucked water. Therefore, impacts would be less than significant. The MPU is analyzed below.

#### a. Water and Wastewater Facilities

The potential exists that certain types of recreational amenities conceptually identified as subsequent project in accordance with the MPU may require water and sewer service, such as the proposed restroom facilities at the Old Mission Dam staging area in the Mission Gorge subarea (MPU Recommendation MG-F8) and at the West Sycamore staging area in the West Sycamore subarea (MPU Recommendation WS-F1). Proposed restrooms would require water and sewage disposal and would need to either connect to existing water or sewer lines or provide water through wells and sewage disposal through septic systems, although it is unlikely that new restroom facilities with running water would be proposed at any distance from existing roads and utilities. Therefore, it is unlikely that these facilities would trigger the need for new water or sewer systems and there would be no associated physical impacts to the environment.

Other MPU Recommendations would generally not require water or sewer services as they do not involve habitable structures, such as residential housing or commercial offices. Implementation of the MPU would not change existing or planned land uses or convert any areas planned for open space to urban uses. Therefore, the MPU would not induce growth requiring the expansion or construction of new utilities to serve the project, the construction of which would create physical impacts.

Impacts related to water conservation and reclaimed water would also not occur with implementation of the MPU, as they do not include any residential, commercial or other development associated with high water use. Therefore, the water needs of subsequent projects contemplated by the MPU would be

limited. In addition, the MPU would not prevent regional efforts in support of water conservation or use of reclaimed water.

The Park maintains a Good Neighbor Policy Agreement with the SDCWA. The purpose of the agreement is to provide a comprehensive approach to providing water facilities within the Park to increase regional water supply reliability, while supporting the Park's goals of providing educational and recreational opportunities for the region and assuring that any negative impacts to the Park are mitigated. This agreement would continue if the MPU is implemented, and would also facilitate communication and coordination with the SDCWA regarding MPU Recommendations proposed near SDCWA facilities.

Nevertheless, subsequent projects implemented in accordance with the MPU would have the potential to be located near water/wastewater utilities. Grading activities during these subsequent projects, though rather limited, would have the potential to disrupt existing utilities. Therefore, impacts would be significant (**Impact UTIL-1**) and mitigation is required.

### **b. Electricity and Gas Transmission**

Implementation of the Plans would not require any new or expanded electricity or gas transmission lines. However, several SDG&E electrical transmission lines traverse portions of the park and connect to nearby substations as shown on Figure 5.13-1. A major high-pressure gas transmission line is located within the Fortuna Mountain subarea. Implementation of the MPU recommendations would not require disturbance or alteration to these facilities. Any changes or alterations in the SDG&E facilities within the Park would need to be coordinated and executed by SDG&E and would require a separate environmental review. There would be no impact associated with electricity and gas transmission utilities.

### **c. Storm Water Drainage**

The study area is primarily undeveloped and storm water flows over the natural surfaces and drainages. As such, there are limited structural drainage facilities within the Park. Several MPU recommendations identify subsequent projects that may require storm water drainage facilities. For example, the numerous parking areas identified within the MPU would likely require related drainage improvements. As these subsequent projects are conceptual in nature, it cannot be determined at this time if these improvements would result in impacts. Therefore, impacts would be significant (**Impact UTIL-2**) and mitigation is required.

### **d. Solid Waste**

The potential exists that the various recreational amenities proposed as part of the MPU recommendations could increase the number of visitors to the Park, which would increase the amount of trash and recyclables collected in Park receptacles. The MPU recommendations also identify new trash receptacles to be installed around the Park. This could increase the volume of trash collected from the Park. Trash generated by Park users has to be transported to landfills and recycling centers. However, subsequent projects implemented in accordance with the MPU would not change any existing or planned land uses or convert any areas planned for open space to urban uses.

As the MPU would not induce growth in the region, any additional waste and recyclables collected from the Park would not represent an increase in regional solid waste generation associated with new residential or commercial land uses. As a result, the project would not result in a significant increase in the demand for disposal of solid waste that would require an expansion of landfills and recycling centers, the construction of which would create physical impacts.

### e. Communication Systems

MPU Recommendation CM-F6 states: "When funds are available, and technological advances allow for minimization of equipment, the City and County antennas should be modified for a less visible profile, or be removed. Any modifications to the facilities will be coordinated through the City's Deputy Director of Communication and Networks and the County's Manager of Microwave/Radio Communications." The purpose of this measure is primarily to improve the aesthetics of Cowles Mountain; however, the MPU recognizes that complete removal of the facility is likely impractical. This recommendation would not adversely impact the existing communication facility because this measure would be implemented in coordination with the City's Deputy Director of Communication and Electrical Division and the County's Manager of Microwave/Radio Communications.

Implementation of the MPU recommendations would not change existing or planned land uses or convert any areas planned for open space to urban uses that would create a demand for new communication facilities resulting in physical impacts. Therefore, they would not require the expansion or construction of new communication facilities to serve the project. Impacts would be less than significant.

## 5.13.4 Significance of Impacts

Implementation of the Plans and associated discretionary actions would not result in the need for new utilities or services or require alterations to existing utilities including water and wastewater infrastructure, electricity and gas transmission lines, solid waste, or communication systems.

Subsequent projects implemented in accordance with the MPU would have the potential to be located near water/wastewater utilities. Grading activities during these subsequent projects, though rather limited, would have the potential to disrupt existing utilities. Therefore, impacts would be significant (**Impact UTIL-1**).

Some subsequent projects identified by the MPU would have the potential to result in expanded storm water drainage facilities. These impacts would be significant (**Impact UTIL-2**).

## 5.13.5 Mitigation Framework

The following mitigation framework would apply to **Impact UTIL-1**:

**MM-UTIL-1:** Prior to approval of subsequent projects implemented in accordance with the MPU, the City Director of the Public Utilities Department shall determine, based on review of the project, that future projects are sited and designed to avoid conflicts with existing public utilities in accordance with the Master Plan and City of San Diego Public Utilities

Department guidance identified below. Future design of projects shall be based on the recommendations of an anticipated detailed grade and alignment study that addresses potential conflicts with existing utilities and access road realignments implemented in compliance with Council Policies 400-13 and 400-14. The realignments of utilities or access roads implemented in compliance with Council Policies 400-13 and 400-14 could result in secondary impacts on biological or archaeological resources.

Measures that could be incorporated into future projects to minimize potential conflicts with utilities shall include, but are not limited to, coordination regarding the location of the trails and pathways with the Park Planning Section of the Development Services Department or the Director of the Public Utilities Department and in compliance with the Sewer Design Guidelines and other utility agencies that require access to the facilities. If feasible, access to the sewer facilities shall also be coordinated to provide combined access to storm water pollution facilities in order to minimize the impact on open space and canyons by having common access. The access shall be proposed in a strategic location to facilitate Council Policies 400-13 and 400-14. If future trail alignments shall be coordinated with planned or existing utility access roads then the following shall be considered:

- Areas within 10 feet of sewer mains shall be kept clear of trees.
- When feasible, locate future access in accordance with the Sewer Design Guide requirement for access roads.
- Design trails and pathways to also serve as a sewer access road centered over the ultimate sewer location if determined feasible at the project level.
- Where feasible, incorporate the sewer depth, slope, and location requirements of the Sewer Design Guide (February 2013).
- Any grade or alignment study shall include cross sections showing existing and proposed utilities and access roads.

Implementation of the mitigation framework outlined in **MM-HYD/WQ-1** and **MM-HYD/WQ-2** in Section 5.8 of this Program Environmental Impact Report (PEIR) would reduce **Impact UTIL-2** to below a level of significance because it would ensure that future projects implemented in accordance with the Plans would adhere to the regulatory requirements contained in the City's Storm Water Runoff and Drainage Regulations of the Land Development Code and other applicable requirements.

### 5.13.6 Significance after Mitigation

Subsequent projects implemented in accordance with the MPU would be required to avoid or mitigate potential conflicts with existing utilities and planned or existing access pathways in accordance with the regulations and performance standards outlined in **MM-UTIL-1**. Any subsequent projects requiring new storm water infrastructure would be required to adhere to **MM-HYD/WQ-1** and **MM-HYD/WQ-2**. Adherence to the Mitigation Framework would ensure potential impacts would be less than significant.



## **Chapter 6**

# **Significant Unavoidable Environmental Effects/Irreversible Environmental Changes**

### **6.1 Significant Environmental Effects Which Cannot Be Avoided if the Project Is Implemented**

In accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15126.2(b), any significant unavoidable impacts of a project, including those impacts that can be mitigated, but not reduced to below a level of significance despite the applicant's willingness to implement all feasible mitigation measures, must be identified in the Program Environmental Impact Report (PEIR). No significant and unavoidable effects would occur due to implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park) (refer to Chapter 5 of this PEIR for further detail). All significant impacts identified in Chapter 5, Environmental Impact Analysis, of this PEIR can be reduced to below a level of significance with implementation of the Mitigation Framework identified in Chapter 5.

### **6.2 Significant Irreversible Environmental Changes Which Would Be Caused by the Project Should It Be Implemented**

Section 15126.2(c) of the CEQA Guidelines requires an evaluation of significant irreversible environmental changes which would occur should the Plans be implemented. Irreversible changes typically fall into three categories:

- Primary impacts such as the use of nonrenewable resources (i.e., biological habitat, agricultural land, mineral deposits, water bodies, energy resources and cultural resources);
- Primary and secondary impacts such as providing access to previously inaccessible areas; and
- Environmental accidents potentially associated with subsequent projects.

Section 15126.2(c) of the CEQA Guidelines states that irretrievable commitments of resources should be evaluated to assure that current consumption of such resources is justified.

Implementation of the Plans would not result in significant irreversible impacts to biological resources, agricultural land, mineral deposits, water bodies, energy resources, or historical resources. Although sensitive biological resources are identified throughout the study area which would be impacted by subsequent projects implemented in accordance with the Plans, direct and indirect impacts can be offset through strict compliance with the Mitigation Framework identified for biological resources. Subsequent projects implemented in accordance with the Plans would have the potential to impact archaeological sites within the study area; however, these potential impacts can be mitigated through strict adherence to the Mitigation Framework further detailed in Chapter 5 of the PEIR.

As further described in Chapter 9 of this PEIR, the Plans would not result in the loss of any agricultural lands or mineral deposits. Under implementation of the Plans, the study area would remain a regional park providing recreational open space and biological habitat. Although portions of the study area may contain agricultural or mineral resources, implementation of the Plans would not impact these mineral resources because the resource would continue to remain available.

The Plans would not provide access to areas that were previously inaccessible. The study area is surrounded by urban uses and roadways. Four areas (Lake Murray, Cowles Mountain, Mission Gorge, and Fortuna Mountain) are currently within the official Park boundaries and are used by humans for recreation and maintenance of utilities. The East Elliott and West Sycamore areas are also currently used for recreation (even though they are not officially within Park boundaries), as well as maintenance of utilities. Although some areas of the Park will now officially be accessible to recreation uses, or trails may extend to previously inaccessible areas, subsequent projects contemplated by the Plans would be required to analyze potential edge effects on adjacent biological habitat. Sections 5.1 and 5.5 of the PEIR set forth a mitigation framework that subsequent projects would be required to follow. Furthermore, trails and other recreational amenities would only be located on City of San Diego owned or leased parcels. Other trails that have previously been created illegally would be closed to public use. Therefore, implementation of the Plans would not result in significant impacts related to accessibility.

Construction of subsequent projects implemented in accordance with the Plans may require limited consumption of non-replenishable resources, or resources which may renew slowly. These resources would include certain types of lumber and other forest products; aggregate materials used in concrete and asphalt (e.g., sand, gravel and stone); or metals (e.g., steel, copper and lead). Fossil fuels, such as gasoline and oil, would also be consumed in the use of construction vehicles and equipment. Subsequent projects would not entail large development of buildings that require large amounts of supplies; a majority of these subsequent projects would be trail creations or reroutes, which require no supplies. Picnic shelters, restrooms, and parking areas contemplated by the MPU would require some of these supplies, however.

With respect to environmental accidents potentially associated with the Plans and as further discussed in the PEIR, the study area contains unexploded ordnance, which could be encountered during construction of subsequent projects. The risk for wildfires is high throughout the study area, as it is almost entirely composed of natural, unmaintained open space areas. Based on the analysis provided in Section 5.7, although conditions exist within the study area associated with hazardous materials and risk of wildfires, the MPU Recommendations along with adherence to the Mitigation Framework are intended to assure compliance with regulatory requirements, which would reduce the potential for environmental accidents.



## Chapter 7

# Growth Inducement

In accordance with Section 15126.2(d) of the California Environmental Quality Act (CEQA) Guidelines and the City of San Diego's 2016 Significance Determination Thresholds, an Environmental Impact Report must include an analysis of the growth inducing impact of the Plans. Growth inducement refers to economic or population growth, the construction of additional housing, or removal of obstacles to population growth associated with a proposed project.

Direct growth inducement may result from provision of public services and infrastructure such as roadways and utility lines to a previously undeveloped area. These can foster additional growth by reducing development constraints for nearby areas, thereby inducing other property owners in the area to convert their land to other uses. Direct impacts can also result from a development's population placing strain on existing public services, or a particular development increasing the pace of density of existing surrounding developments.

Indirect growth inducing impacts include the additional demand for housing, commodities, and services that new development attracts by increasing population or services in an area. Increases in the population may strain existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. It cannot be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

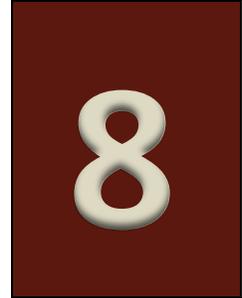
Implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park) would not directly induce growth within the study area. The Plans do not propose specific development; they are an integrated set of management guidelines for the Park, with the NRMP focusing on the natural resources and the MPU focusing on public access and recreation. Furthermore, implementation of the Plans would not change any existing or planned land uses or convert any areas of the Park planned for open space to urban uses.

Additionally, subsequent projects contemplated by the Plans would be subject to further design and environmental review. None of these projects involve any residential or other component that would directly induce growth within the study area. The Plans would not foster unplanned growth in the study area. Therefore, the Plans would not result in direct impacts related to inducing growth.

Indirect impacts may result with implementation of the subsequent projects contemplated by the Plans. The addition of trails and other recreation amenities contemplated by the MPU could attract additional visitors to the study area. However, this would be short-term and would not result in a long-term increase in population. Therefore, indirect impacts related to inducing population growth would be less than significant.

In addition, Plans would not extend any utilities or expand services beyond those planned or already constructed in the study area. Implementation of the Plans would only require minimal connections to existing utilities for facilities such as public restrooms, drinking fountains, and lighting that may be implemented in accordance with the MPU. If such facilities are implemented as subsequent projects under the MPU, the study area contains numerous utilities, such as water and wastewater pipelines, to which these projects could connect. The facilities would be sited near these utilities, and would, therefore, not require the extension of significant new or expanded utility services. Because subsequent projects contemplated by the MPU would connect with existing available utilities in the area and, growth-inducing impacts would be less than significant.

Overall, implementation of the Plans would not result in either direct or indirect impacts related to inducing population growth. Impacts would be less than significant.



## Chapter 8

# Cumulative Impacts

According to Section 15355 of the California Environmental Quality Act (CEQA) Guidelines, “cumulative impacts” refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. These individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The basis for the analysis of cumulative impacts is dependent on the nature of the issue. A Program Environmental Impact Report (PEIR) must discuss cumulative impacts when the project’s incremental contribution is cumulatively considerable (CEQA Guidelines, § 15130(a)). If the combination of the project’s incremental effect and the related effects from other projects is not significant, the PEIR should briefly explain why the cumulative effect is not significant (CEQA Guidelines, § 15130(a)(2)).

A PEIR may determine that a project’s contribution to a significant cumulative impact would not be cumulatively considerable based on appropriate mitigation and this finding can be made if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact (CEQA Guidelines, § 15130(a)(3)). A PEIR need not discuss significant cumulative impacts in as great detail as is provided for project impacts alone (CEQA Guidelines, § 15130(b)). The discussion should be guided by standards of practicality and reasonableness (CEQA Guidelines, § 15130(b)).

## 8.1 Cumulative Projects

According to Section 15130(b)(1) of the CEQA Guidelines, the discussion of cumulative effects is to be based on either (a) “a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those impacts outside the control of the agency,” or (b) “a summary of

projections contained in an adopted plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency." This section identifies the cumulative projects that were considered for purposes of this cumulative analysis.

## **8.1.1 Long-Range Plans**

In addition to the long-range plans discussed below, each subject area section includes a discussion of the regulatory framework, which includes long-range planning documents that are relevant to a specific environmental issue area.

### **8.1.1.1 San Diego River Park Master Plan**

The San Diego River Park Master Plan (SDRPMP), adopted in 2013, provides the vision and guidance to restore the relationship between the San Diego River and surrounding communities by creating a linear river park, stretching from the Pacific Ocean at Ocean Beach Park to the City of San Diego's (City's) jurisdictional eastern boundary at the City of Santee. The SDRPMP covers the 17.5-mile stretch of the San Diego River and its eastern reaches include land within the Park. Future actions anticipated by the SDRPMP include implementation of design guidelines, parking, landscaping, storm water and water quality improvements, lighting, signage, brush management, structures, and floodway, path, and trail improvements.

### **8.1.1.2 City of San Diego General Plan**

The City's General Plan is made up of 10 elements that provide a comprehensive slate of citywide policies and further the City of Villages smart growth strategy for growth and development. The General Plan was comprehensively updated in 2008. Community plans work together with the General Plan to provide location-based policies and recommendations in the City's 50+ community planning areas. Community plans are written to refine the General Plan's citywide policies, designate land uses and housing densities, and include additional site-specific recommendations as needed.

### **8.1.1.3 Santee General Plan Update GP2020**

The City of Santee's updated General Plan, adopted in July 2003, is used to guide the decisions of elected officials and City staff when considering community development proposals, infrastructure improvements, and public service expenditures (City of Santee 2003).

### **8.1.1.4 Pure Water San Diego Program**

The Pure Water San Diego Program is a phased, multi-year program to produce purified water to supplement San Diego's drinking water supply. The program will provide a third of San Diego's local water supply by 2035 by using proven technology to clean recycled water to produce safe, high-quality drinking water. The program is a cost-effective investment that will provide reliable drinking water that

is controlled locally and drought proof. Currently only 8 percent of wastewater leaving residences and business is recycled, the program would recycle all wastewater and maximize the use of water.

### **8.1.1.5 Draft Vernal Pool Habitat Conservation Plan**

The Draft Vernal Pool Habitat Conservation Plan (VPHCP) is intended to provide an effective framework to protect, enhance, and restore vernal pool resources within the City, while improving and streamlining the environmental permitting process for impacts to threatened and endangered species associated with vernal pools. The Draft VPHCP covers vernal pools and seven threatened and endangered covered species that do not have federal coverage under the City's Multiple Species Conservation Program (MSCP) Subarea Plan. Part of the Draft VPHCP conservation strategy is to expand the City's existing Multi-Habitat Planning Area (MHPA) to conserve targeted vernal pool complexes in a configuration that maintains habitat function and viability of the seven covered species, consistent with the Vernal Pool Recovery Plan (USFWS 1998); and to implement avoidance and minimization of impacts to vernal pools consistent with the Draft VPHCP and the City's Environmentally Sensitive Lands (ESL) Regulations. Mission Trails Regional Park contains high-quality pools in two locations within the Park. Activities that may impact vernal pools would be limited to those identified in the Draft VPHCP as covered activities that cause temporary habitat disruption but do not permanently alter landforms, and do not result in permanent habitat loss or negative impacts to vernal pool watersheds (e.g., recontoured vernal pool basins that will be restored). These activities include maintenance and use of existing trails, development of new trails, and brush management and weed abatement. The Mission Trails Regional Park Master Plan Update (MPU) incorporates the goals and objectives of the Draft VPHCP, and would be consistent with the requirement of the Draft Vernal Pool Management and Monitoring Plan. While no impacts to vernal pools are expected to occur within the Park, restoration efforts could result in impacts to vernal pool species included as a covered activity per the Draft VPHCP. Mitigation in accordance with the Draft VPHCP, ESL Regulations, and City's Land Development Manual Biology Guidelines would be required.

## **8.1.2 List of Development Projects**

### **8.1.2.1 Sycamore Landfill Master Plan Expansion**

The Sycamore Landfill Master Plan, approved in 2012, provided for a landfill expansion to increase the footprint of the landfill by approximately 167 feet, increase the height to 1,050 feet above mean sea level, and accept up to 13,000 tons of solid waste per day. The proposed project would increase the permitted daily tonnage from 3,300 tons per day to 5,000 tons per day in 2015, increasing gradually until it reaches 13,000 tons per day in 2025. This would result in an increase in municipal solid waste capacity from approximately 71 million cubic yards under the current plan, to 151 million cubic yards. The landfill is located in the East Elliot Community Plan and required an amendment to the Community Plan. The expansion would be phased-in over time and consistent with the San Diego franchise agreement. With the expansion, the landfill would be operational until approximately 2042. Truck trips would increase from 1,540 in 2003 to 6,680 in 2025. All significant traffic impacts were reduced to below a level of significance with mitigation.

### **8.1.2.2 Castlerock**

An Environmental Impact Report (EIR) Addendum was approved in May 2015 for the Castlerock project, which is a proposed residential development consisting of 424 single-family homes, 5.3 acres of public parks, 0.8 acre of pocket parks, a multi-use trail, and associated infrastructure. A total of 91.5 acres would be retained in open space, including 88.1 acres of MHPA open space. The project was located within the City of San Diego, and has now been annexed into the City of Santee. The project is located along the eastern boundary of the City of San Diego, north of State Route 52 (SR-52) and at the eastern edge of the East Elliott area. Primary access to the project site would be provided via Mast Boulevard and would include frontage improvements to Mast Boulevard including a signalized intersection, a dedicated right-turn pocket on westbound Mast Boulevard, and the provision of 5-foot sidewalks, and landscaping. The project is estimated to generate approximately 4,240 average daily trips. This project is currently under construction. All MHPA lands will remain within the City of San Diego as part of the Park.

### **8.1.2.3 Fanita Ranch**

The Fanita Ranch Specific Plan is a proposed residential development project within the northern portion of the City of Santee. The City of Santee certified a Final EIR for Fanita Ranch in December, 2007. The project analyzed in the 2008 certified EIR proposed to develop approximately 970 acres of land into 1,380 single-family dwelling units and 230 acres into a pedestrian-oriented village center with 15 live/work units and community-serving recreational resources, including a 10-acre lake and a fire station. The remaining approximately 1,400 acres of land would become an open space preserve. Once operational, the project would generate approximately 19,000 vehicle trips per day.

However, the certified EIR was invalidated in 2012 due to litigation. Since then, the property was acquired by another developer who is in the process of obtaining new entitlements for a similar development. The exact details of the updated proposal are not known at this time, but are likely similar to the original proposal.

### **8.1.2.4 River Park at Mission Gorge**

A Notice of Preparation was prepared in 2009 for the River Park at Mission Gorge project, which involves the creation of 83 lots for 2,156 residential condominiums and commercial buildings proposed on a 366-acre site at 7500 Mission Gorge Road within the Navajo Community Plan, Council District 7 and the Tierrasanta Community Plan. The project would include a Community Plan Amendment, Site Development Permit for Environmentally Sensitive Lands, Planned Development Permit, Rezone, and Vesting Tentative Map. An EIR for this project has not been released.

### **8.1.2.5 Flow Regulatory Structure II and Vent Demolition**

The San Diego County Water Authority (SDCWA) maintains critical water pipelines beneath portions of the Park. The SDCWA Flow Regulatory Structure (FRS) II project would provide a new underground flow regulatory structure, or a covered reservoir, to help regulate the water system's flow of untreated water. The FRS II would be capable of holding up to 12 million gallons of untreated water. An aboveground access building would be built to house instrumentation and controls, provide ventilation and security,

and allow access for maintenance and repairs. When the new flow regulator structure is complete, SDCWA would be able to remove existing blue vent stacks that are visible on hilltops within the Park and replace them with smaller structures. Trip generation associated with this project would be limited to temporary construction traffic. Construction of the FRS was delayed in 2011 due to concerns over increasing water rates. The SDCWA construction schedule indicates construction was to begin in mid-2014 and be complete by mid-2016; however these dates were estimates and construction may have been further delayed.

## **8.2 Cumulative Impact Analysis**

### **8.2.1 Land Use**

The geographic scope of cumulative impact analysis for this issue would be the study area and the lands surrounding it by approximately 1 mile, including the identified projects in Section 8.1.2, as these surrounding lands would have the potential to contribute to cumulative significant land use impacts.

As a general rule, and as stated in San Diego's Significance Determination Thresholds for land use, projects that are consistent and compatible with surrounding land uses and the applicable community plan should not result in land use impacts. As detailed in Section 5.1 of this PEIR, the Plans are consistent with applicable General Plan goals and policies of the Recreation and Conservation Elements, the MSCP, the Community Plans for Navajo, Tierrasanta, and East Elliott, and the Rancho Encantada Precise Plan. Subsequent projects implemented under the Plans would have the potential to result in land use adjacency conflicts with the MHPA; however, the mitigation framework would ensure each subsequent project reduces these conflicts to a less than significant level.

As the Plans would be consistent with the existing Park and surrounding land uses and would not conflict with existing land use plans for the area, they would not contribute to a cumulative impact related to land use. Cumulative projects in the area would be required to evaluate land use impacts, consider applicable General Plan goals and policies, and mitigate significant land use impacts. Residential cumulative projects identified in Section 8.1.2 would have dissimilar land use related impacts as compared to a proposed park master plan update due to the nature of the use. For these reasons, cumulative land use impacts would be less than significant.

### **8.2.2 Visual Effects and Neighborhood Character**

The geographic scope of cumulative impact analysis for this issue would generally encompass areas surrounding the Park which can view the dominant landforms that make it regionally significant. As discussed in Section 5.2 of this PEIR, implementation of the Plans would maintain existing views to and from the Park, would result in minimal landform modification, and would be compatible with neighborhood character. As the Plans include recommendations for maintaining and expanding the Park, which is a visual resource for surrounding communities, the Plans generally intend to maintain and enhance the existing visual resource. Similarly, the natural open space character of the study area would be retained and would maintain compatibility with the surrounding communities.

As implementation of the Plans would not result in significant impacts related to landform alteration, visual quality, lighting, or neighborhood character, cumulative impacts would not occur. In addition, as the project is an update to the master plan for the Park, and not a development project, it would not contribute to the type of viewshed impacts that typically occur as a result of residential development (e.g., rooftops and mass grading). Cumulative visual impacts would be less than significant.

### **8.2.3 Air Quality**

The geographic scope of cumulative impact analysis for air quality is considered to be the San Diego Air Basin. As discussed in Section 5.3 of this PEIR, implementation of the Plans would not result in a conflict with or obstruct implementation of the applicable air quality plan or expose sensitive receptors to substantial pollutant concentrations. As implementation of the Plans would not cause population growth or an increase in currently established population projections, they would be consistent with the General Plan and Regional Air Quality Standards. The worst-case construction emissions associated with subsequent projects such as trail or parking area construction would be less than the applicable thresholds for all criteria pollutants and would not result in an air quality violation. Even in the rare case that multiple subsequent projects are being constructed at the same time, their worst-case emissions combined with other cumulative projects would not result in air quality violations. No significant cumulative air quality impacts would result.

### **8.2.4 Greenhouse Gas Emissions**

Impacts associated with greenhouse gas (GHG) emissions are global in nature and are considered a significant cumulative impact when considering global contributions of GHG emissions from future growth and development. As discussed in Section 5.4 of this PEIR, implementation of the Plans would be below the screening level thresholds for determining potentially significant GHG impacts for the region. GHG emission due to construction activities and operation associated with the MPU would not exceed 900 metric tons of carbon dioxide equivalents annually. Additionally as implementation of the Plans would not result in an increase in long-term GHG emissions or conflict with applicable plans, policies, and regulations pertaining to the reduction of GHGs, the project's contribution to GHG emissions would not be cumulatively considerable.

### **8.2.5 Biological Resources**

Preservation of the region's biological resources has been primarily addressed through the implementation of regional habitat conservation plans. Impacts to biological resources in the City are managed through the adopted MSCP Subarea Plan, which is incorporated by reference in the City's adopted General Plan, Land Development Code ESL Regulations, and Biological Guidelines. Additional state and federal regulations (e.g., Endangered Species Acts) also address some MHPA and non-MHPA biological resource areas and may be required for specific projects (e.g., for vernal pool areas).

The geographic scope of cumulative impact analysis for this issue would be the study area as it is almost entirely within the MHPA and represents one of the largest contiguous areas for habitat preservation in the region. As discussed in Section 5.5 of this PEIR, the study area, as identified by the MSCP Subarea Plan, is a core biological resource area and regional wildlife corridor. There are 8,216 acres of sensitive

upland vegetation communities, 568 acres of sensitive riparian vegetation communities, 23 sensitive plant species, and 41 sensitive wildlife species. Management directives within the MSCP Subarea Plan specifically identified the preparation of a natural resources management plan (NRMP) in order to manage biological resources within the study area at the preserve level. The NRMP, as analyzed in Section 5.1 of this PEIR, fulfills the management directives identified by the MSCP Subarea Plan.

Cumulative impacts could occur within the study area at buildout of the MPU due to projects such as recreation trails and access roads within the MHPA in accordance with the MPU. (See Figure 3-3 of this EIR for the ultimate, proposed, and conceptual MPU trail buildout.) Subsequent projects (e.g., trails) implemented in accordance with the MPU would have the potential to impact sensitive plants and wildlife species directly through the loss of habitat or indirectly by placing trails and recreational facilities adjacent to the MHPA including projects and activities within the Park that are covered under the Draft VPHCP. These projects also have the potential to result in habitat modifications, which in turn may interfere with wildlife nesting, foraging, or movement within riparian habitats and upland habitats. However, the NRMP developed a prioritization system for management actions for species and habitats within the study area. It identified threats, management goals and objectives, monitoring, and minimization of impacts due to management and monitoring activities for each species and habitat type. Therefore, implementation of the NRMP would serve to cumulatively protect and manage biological resources within the study area.

Subsequent projects contemplated by the MPU such as trails (including closures or reroutes), parking areas, restrooms, and park furniture would have the potential to cumulatively result in impacts to loss of sensitive vegetation communities (which provides habitat for sensitive species), as well as indirect impacts to sensitive plant and wildlife species. However, as subsequent projects are implemented by the MPU, each project would be required to adhere to the mitigation framework set forth in Section 5.5. The mitigation framework would ensure, for example, that a trail creation project would not be able to go forward until adequately analyzed for potential impacts to sensitive vegetation communities. This subsequent project would be required to mitigate for such impacts, either through restoration of a trail that would be closed, or in a manner that provides the same habitat quality in kind (as specified by the City's Biology Guidelines, MSCP, etc.)

Therefore, implementation of the NRMP and adherence to the mitigation framework set forth in Section 5.5 for subsequent projects contemplated by the MPU would serve to reduce potentially cumulative biological resource impacts to less than significant.

## **8.2.6 Historical Resources**

The geographic scope of cumulative impact analysis for cultural resources varies depending on the type of resource with potential to be impacted. Geographic scope can be the entire area within which the resource has the potential to occur. For the purpose of this PEIR, the geographic scope for the cumulative analysis of cultural resources is San Diego County.

The General Plan PEIR stated that the continued pressure to develop or redevelop areas would result in incremental impacts to the historic record in the San Diego region, which was determined to be a cumulatively significant impact. Regardless of the efforts to avoid impacts to historical resources, the more that land is redeveloped, the greater the potential for impacts to historical resources.

The Plans would not, unlike other development projects listed in Section 8.1.2, involve significant development. However, as discussed in Section 5.6, of this PEIR, subsequent projects implemented in accordance with the MPU could result in impacts to known prehistoric or historic resources (both archaeological and built environment) and those not yet found and formally recorded. Impacts would be associated with grading of original in situ soils that could expose buried archaeological resources and features or alterations to historic structures.

The Mitigation Framework set forth in Section 5.6 of this PEIR requires that prior to implementation of subsequent projects implemented in accordance with the MPU, the potential presence of archeological resources must be evaluated. If resources are present, they would be avoided or permanently curated (refer to MM-HIST-1a). In addition, impacts to historic resources would be avoided through the implementation of MM-HIST-1b.

Cumulative projects within the region have been or would be subject to similar review and requirements related to the protection of cultural resources. Cumulative projects that involve grading would be subject to similar mitigation to protect declining archeological and historic resources. Mitigation, required by each of the past, present, and reasonably foreseeable projects, would reduce cumulative impacts to below a level of significance.

## **8.2.7 Human Health/Public Safety/Hazardous Materials**

### **8.2.7.1 On-Site Contamination and Hazardous Materials**

As discussed in Section 5.7 of this PEIR, a review of regulatory agency databases and records review found sites of potential environmental concern within the study area. Several of the identified sites would not present a hazard to the public or environment either due to their location away from the study area or in areas that would not be impacted by subsequent projects implemented in accordance with the Plans. However, impacts were identified related to the presence of unexploded ordnance (UXO) associated with the former Camp Elliott. Therefore, the geographic scope of cumulative impact analysis for this issue would encompass the 30,000-acre former Camp Elliott. Former Camp Elliott areas are located within the West Sycamore, Mission Gorge, East Elliott, and Fortuna Mountain areas. Subsurface clearance of UXO has not been completed within the Camp Elliott Formerly Used Defense Site. As such, further efforts would be required to clear the area of UXO hazards.

MM-HAZ-2 (see Section 5.7) would require subsurface clearing of UXO prior to initiating subsequent projects under the Plans within these areas. This mitigation would reduce direct impacts to a less than significant level. As a result, the project would not contribute to a cumulatively considerable impact. In addition, future projects within the Camp Elliott Formerly Used Defense Site, such as the Castlerock project, would similarly be required to clear the area of subsurface hazards prior to land disturbance. As a result, cumulative impacts related to UXO hazards would be less than significant.

As the Plans would not involve the handling, transport, disposal, or release of hazardous substances (other than standard cleaning supplies associated with restroom facilities), the project would not result in a cumulatively considerable contribution to impacts related to the handling, transport, disposal, or release of hazardous substances. Cumulative impacts would be less than significant.

### **8.2.7.2 Fire Hazards**

As discussed in Section 5.7 of this PEIR, subsequent projects implemented in accordance with the Plans would be associated with wildfire hazards due to the existing urban land use patterns surrounding the Park and the highly flammable vegetation contained within it. Due to the unpredictable and damaging nature of a wildfire, the entirety of the undeveloped portions of the County would be considered the cumulative impact area for fire hazard impacts. Implementation of the Mitigation Framework MM-HAZ-1 would ensure that appropriate brush management activities would occur to reduce impacts associated with wildfire to less than significant levels. Cumulative projects would be subject to similar review to ensure wildfire hazards are addressed. Development projects typically implement brush management plans based on requirements of the Land Development Code, and approval by the Fire Department. In addition, Fire Code standards of construction and land development are applied. Based on compliance with these existing regulations intended to protect people and structures from wildfire, a significant cumulative impact would not occur.

## **8.2.8 Hydrology and Water Quality**

For purposes of this analysis, the geographic scope of cumulative analysis for this issue includes the San Diego River and Los Peñasquitos Creek watersheds, which are the two watersheds the study area is within. As discussed in Section 5.8 of this PEIR, subsequent projects implemented in accordance with the Plans would be required to demonstrate that they would not substantially or adversely impact existing drainage patterns, increase runoff, or create flood hazards on-site or downstream. The mitigation framework (MM-HYD/WQ-1 and MM-HYD/WQ-2) sets forth a process for these projects to follow, such as storm water best management practices and management of hydrologic conditions through detention basins.

Other discretionary projects within the study area watersheds would be similarly mandated by existing regulations, such as the National Pollutant Discharge Elimination System (NPDES) permit requirements, Federal Emergency Management Agency floodplain regulations, and applicable requirements of the Municipal Code of the City and equivalent requirements of other jurisdictions, to address and mitigate for impacts to hydrology and water quality resulting from runoff, drainage, and pollutants. As a result, cumulative impacts related to this issue area would be less than significant.

## **8.2.9 Geology and Soils**

The geographic scope of the cumulative impact analysis for geology is limited to the immediate area of the geologic constraint, with the exception of some geologic impacts that are regional, such as earthquake risk. As discussed in Section 5.9 of this PEIR, subsequent projects implemented in accordance with the Plans would result in less than significant impacts associated with geologic hazards after implementation of mitigation framework MM-GEO-1. The framework requires subsequent projects to adhere to the City's Seismic Safety Study, the California Building Code, and regulations within the Land Development Code. Subsequent projects implemented in accordance with the Plans would also result in less than significant impacts associated with erosion after implementation of the Mitigation Framework MM-GEO-2, which requires these projects to adhere to grading regulations and NPDES permit requirements to the satisfaction of the City Engineer. Finally, the Plans do not involve the

development of any habitable structures and therefore would not cumulatively contribute to the exposure of people or structures to seismic-related hazards.

Other cumulative projects would be similarly required to follow standard construction and engineering practices, grading regulations, and NPDES requirements to ensure geologic impacts would be reduced to a less than significant level. As a result, the Plans would not result in a cumulative impact related to geology and soils.

## **8.2.10 Paleontological Resources**

The geographic scope for the cumulative analysis of paleontological resources includes the Peninsular Ranges regions within southern California, which the study area is within and would contain similar resources. As discussed in Section 5.10, subsequent projects implemented in accordance with the Plans would result in less than significant impacts to paleontological resource with adherence to Mitigation Framework MM-PALEO-1. The City and other jurisdictions within the region consider the potential impacts to paleontological resources during discretionary project review and require mitigation measures when warranted by the underlying geologic formation and depth of subsurface disturbance. As all discretionary projects within the region, including projects implemented in accordance with the Plans, consider potential impacts to paleontological resources and mitigate when warranted, cumulative impacts related to this issue area are less than significant.

## **8.2.11 Transportation/Circulation**

As discussed in Section 5.11, implementation of certain subsequent projects contemplated by the MPU such as proposed parking areas would accommodate visitors to the Park, rather than generate new trips by accommodating new growth in the region. Nonetheless, a worst case analysis was completed to identify the trips that would be generated by the proposed parking areas, assuming they were all new trips (Refer to Appendix H of this PEIR). Accordingly, the Plans would not contribute to any cumulative impact related to the capacity of area roadways.

Mitigation Framework MM-TRAF-1 would be implemented to address potential impacts related to circulation movements and effects on existing public access points in relation to the parking area recommendations. As these impacts would be highly localized to the four locations where the parking areas are recommended and no other projects have been identified that would exacerbate circulation or access issues at these locations, cumulative impacts would not occur. Regarding parking-related impacts, the project would result in a net benefit to the availability of parking, reducing demand for parking in neighboring residential areas and increasing accessibility to the Park. As a result, the Plans would not contribute to a cumulative parking impact. Finally, as the project would not conflict with adopted policies, plans, or programs supporting alternative transportation modes and other discretionary projects in the area would be required to comply with applicable policies and plans, cumulative impacts related to alternative transportation would be less than significant.

## **8.2.12 Public Services**

As discussed in Section 5.12, implementation of the Plans would not be associated with an increased demand for police services, fire protection services, or parks because the project would not accommodate growth that would result in an increase in regional population and demand for services. As such, new services would not be required as a result of the project and there would be no associated cumulative impact associated with the construction of public facilities.

## **8.2.13 Public Utilities**

As discussed in Section 5.13, implementation of the Plans would not result in a need for new public utility systems, or require substantial alterations to existing utilities, including water, wastewater, reclaimed water, solid waste disposal, storm water infrastructure, and communication systems, the construction of which would create physical impacts. However, impacts were identified related to potential conflict between the construction and maintenance of utilities and the management and preservation of natural resources and recreational opportunities in the Park. MM-UTIL-1 would be applied to subsequent projects implemented in accordance with the Plans to ensure that potential utilities conflicts would not occur. As the mitigation would specifically address potential conflicts with utilities located within the Park, it would not be associated with a cumulative impact related to physical impacts associated with the construction of utilities. As a result, cumulative impacts related to public utilities would be less than significant.



## **Chapter 9**

# **Effects Found Not to Be Significant**

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15128, this section describes the environmental issue areas that would not have the potential to result in significant impacts resulting from implementation of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans) for the Mission Trails Regional Park (Park). The issue areas were based upon initial environmental review included in the Notice of Preparation Scoping Letter (see Appendix A).

### **9.1 Agriculture and Forestry Resources**

The project area does not support and has not historically supported agricultural operations or forestry resources. Based on a review of the State Farmland Mapping and Monitoring Program (FMMP) Important Farmland Maps, the study area is designated as “Grazing Land” and “Other Land.” The FMMP defines Grazing Land as “land on which the existing vegetation is suited to the grazing of livestock.” Other Land is defined as “land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land (State of California 2014b).” The study area does not support forest land as defined in PRC Section 12220(g) or timberland as defined by Government Code Section 51104(g).

Although the study area could support the grazing of livestock, this use would generally not be compatible with the existing and planned use of the study area as a regional park or supportive of the NRMP management actions intended to support sensitive biological habitats. While some soil types in the lower river valley areas of the study area would be considered suitable agricultural soils, implementation of the Plans would not adversely impact such soils, as it will remain a regional park providing recreational open space and biological habitat. These soils would remain undisturbed and any

limited development of recreational facilities contemplated by the MPU would not substantially impact prime agricultural soils or FMMP farmland.

Although the study area does not support agricultural or forestry uses, and the Plans do not envision future agricultural or forestry uses within the study area, implementation of the Plans would not preclude agricultural or forestry uses through large scale development or removal of soils. For these reasons, impacts regarding agricultural or forestry resources would be less than significant.

## **9.2 Mineral Resources**

The California Geological Survey, formerly the California Division of Mines and Geology, classifies the regional significance of mineral resources in accordance with the California Surface Mining and Reclamation Act of 1975 and designates lands containing significant aggregate resources. Mineral resource zones have been designated to indicate the significance of mineral deposits. The study area is primarily designated as Mineral Resource Zone 2 (MRZ-2), with a few smaller areas designated MRZ-3. MRZ-2 is designated on lands where significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. Lands classified as MRZ-3 are areas of undetermined mineral resource significance (State of California 2014c). Although large portions of the study area have the potential to contain mineral resources, implementation of the Plans would not impact these mineral resources because the resource would continue to remain available.

For example, subsequent projects contemplated by the Plans do not include any residential or commercial land development that would preclude the extraction of underlying mineral resources, nor would they introduce an incompatible use that would reduce the feasibility of future mineral resource extraction. With the exception of limited physical improvements within the study area, such as proposed parking areas and recreational amenities (shade structures, park benches, etc.), the availability of mineral resources in the study area would largely remain as it exists today. An existing mineral extraction site west of the study area (Superior Mine) would not be adversely impacted, as the Park would continue to be compatible with extraction activities subsequent to implementation of the Plans. Although the Plans do not envision future mineral extraction activities in the study area, the subsequent projects contemplated by the Plans would not preclude mineral resource extraction. As a result, impacts to mineral resources would be less than significant.

## **9.3 Noise**

Noise is defined as unwanted or objectionable sound. Noise impacts resulting from a project generally occur if a significant increase in ambient noise levels would occur or people would be exposed to noise levels in excess of the City's noise ordinance or noise levels are incompatible with Table NE-3, Land Use – Noise Compatibility Guidelines (2015). In addition, noise impacts can result from exposure of people to transportation noise, including aircraft noise. The Plans would provide for the management of the Park's natural resources and allow for the development of recreational amenities within the Park. Implementation of the NRMP activities would not be characterized as noise producing as they would consist of biological monitoring activities, hand weeding, and other habitat management activities that would not generate a significant amount of noise.

Some of the subsequent projects contemplated by the MPU would be associated with short-term construction activities that would generate minimal noise from construction equipment. The installation of park furniture would not require the use of heavy construction equipment that would generate a substantial amount of noise. However, construction of parking areas as well as activities required for trail maintenance and creation may require the use of trail building equipment, and other construction equipment such as loaders and pavers. While these activities would generate short-term noise, the noise would be intermittent and would occur at distance from any habitable structures or other noise receptors. Potential noise impacts to sensitive species would be addressed at the time subsequent projects are implemented, as further detailed in the mitigation framework within Sections 5.1, Land Use, and 5.4, Biological Resources. Due to the intermittent nature of the noise generation and the distance to sensitive noise receptors, construction activities would not result in significant noise impacts with adherence to the mitigation framework.

In addition, implementation of the Plans would not generate traffic noise because additional trips would not be added to roadways within the study area. Subsequent projects contemplated by the MPU, such as parking areas, would redistribute a small amount of existing trips around the study area, but would not change existing noise levels. Overall, noise impacts would be less than significant.

## **9.4 Population and Housing**

Implementation of the Plans would not induce population growth either directly or indirectly, as detailed in Chapter 7, Growth Inducement. The Plans would generally serve to accommodate the recreational needs of the existing population and the recreational needs associated with a growing population, but would not induce new growth. In addition, implementation of the Plans would not displace any existing housing that could necessitate the construction of replacement housing in another area. For these reasons, impacts related to population and housing would be less than significant.



## Chapter 10

# Project Alternatives

The California Environmental Quality Act (CEQA) Guidelines Section 15126.6 requires that an environmental impact report (EIR) compare the effects of a “reasonable range of alternatives” to the effects of a project. The alternatives selected for comparison should be those that would attain most of the basic project objectives and avoid or substantially lessen one or more significant effects of the project. The “range of alternatives” is governed by the “rule of reason,” which requires the EIR to set forth only those alternatives necessary to permit an informed and reasoned choice by the lead agency and to foster meaningful public participation (CEQA Guidelines Section 15126.6[f]). CEQA generally defines “feasible” to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, while also taking into account economic, environmental, social, technological, and legal factors.

The alternatives addressed in this Program Environmental Impact Report (PEIR) were selected in consideration of one or more of the following factors:

- The extent to which the alternative would feasibly accomplish most or all of the basic objectives of the Master Plan Update (MPU) and Natural Resources Management Plan (NRMP) (collectively, the Plans);
- The extent to which the alternative would avoid or substantially lessen any of the identified significant environmental effects of the Plans;
- The feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, general plan consistency, and consistency with other applicable plans and regulatory limitations;
- The appropriateness of the alternative in contributing to a “reasonable range” of alternatives necessary to permit a reasoned choice; and

- The requirement of the CEQA Guidelines to consider a “no project” alternative; and to identify an “environmentally superior” alternative in addition to the no project alternative (Section 15126.6[e]).

As discussed in Chapter 5, the Plans would not result in any significant and unmitigable impacts. In developing the alternatives to be addressed in this section, consideration was given regarding their ability to meet the basic objectives of the Plans and eliminate or substantially reduce significant environmental impacts.

As detailed in Chapter 3, Project Description, the Plans address the long-term protection of natural resources and development goals in support of recreation and interpretation within the Mission Trails Regional Park (Park). For the purposes of this PEIR, the goals of the Plans are the objectives of the Project as defined by the CEQA Guidelines:

1. Provide a structure for ongoing land and resource management actions required to maintain the Park and protect its resources.
2. Identify unsafe or unsustainable sections of recreational trails and provide guidance for the types of management action required.
3. Identify missing or constrained linkages within the Park and providing new or alternative routes to improve the recreational connectivity while protecting the Park’s natural and cultural resources.
4. Integrate the management actions identified in the NRMP with the recreational trails network throughout the Park.
5. Provide amenities that support the recreational uses that currently exist or are proposed as part of the MPU.

This chapter identifies alternatives that were eliminated from further consideration and reasons for dismissal, and analyzes the No Project and the Reduced Project alternatives in comparison to the potential environmental impacts associated with the Plans (Table 10-1). Following the description of each alternative, the chapter evaluates the environmental impacts of the alternative.

Environmental Issue	Proposed Project	No Project Alternative	Reduced Project Alternative
Land Use	SM	Greater than the Project (SM)	Less than the Project (SM)
Visual Effects and Neighborhood Character	LS	Greater than the Project (LS)	Less than the Project (LS)
Air Quality	LS	Same as the Project (LS)	Less than the Project (LS)
Greenhouse Gas Emissions	LS	Same as the Project (LS)	Less than the Project (LS)
Biological Resources	SM	Greater than the Project (SM)	Less than the Project (SM)
Historical Resources	SM	Same as the Project (SM)	Less than the Project (SM)
Human Health/Public Safety/ Hazardous Materials	SM	Same as the Project (LS)	Same as the Project (SM)
Hydrology and Water Quality	SM	Greater than the Project (SM)	Less than the Project (SM)
Geology and Soils	SM	Greater than the Project (SM)	Less than the Project (SM)
Paleontological Resources	SM	Same as the Project (SM)	Less than the Project (SM)
Transportation/Circulation	SM	Greater than the Project (SM)	Same as the Project (SM)
Public Services	LS	Same as the Project (LS)	Less than the Project (LS)
Public Utilities	SM	Same as the Project (SM)	Less than the Project (SM)

LS = less than significant; SM = significant and mitigable; SU = significant and unavoidable.

## 10.1 Alternatives Considered But Rejected

City staff has considered a range of potential project alternatives based on public and agency input. These alternatives have consisted of a number of trails and facilities proposals ranging from complete closure to public access of many areas of the park to the development of miles of new roads and trails associated with new active recreation use areas. Many of these ideas were used to shape the Plans.

The preservation of the Park entirely as biological open space, precluding any recreational use, was considered but rejected by the City as not meeting the project objective of providing recreational resources to serve a growing and diverse population. Likewise, a proposal for increased development of active sports fields and a substantial expansion of the existing trails and roads network was considered but rejected by the City as not meeting the project objective of complying with the Multiple Species Conservation Program (MSCP) and numerous environmental laws and regulations. The ultimate goal of the Plans is to find an ideal balance between the accommodation of a diverse array of recreational activities and the protection and preservation of natural open space for the enjoyment of current and future generations of residents and visitors to the City.

## 10.2 No Project Alternative

### 10.2.1 Description

The No Project Alternative would include limited implementation of the 1985 Master Plan, which provides guidance for the development of an urban regional park to meet current and future recreational, educational, and cultural needs of the San Diego region. The No Project Alternative represents limited implementation of the 1985 Master Plan because a number of proposals in the 1985

Master Plan for construction of structures and amenities would no longer be feasible under the existing regulatory framework since current regulations provide additional protections for biological resources compared to when the 1985 Master Plan was adopted. For example, restrictions under the City of San Diego MSCP Subarea Plan Environmentally Sensitive Lands (ESL) Regulations and brush management regulations would restrict development of some of the larger uses identified in the 1985 Master Plan such as a multi-use center in the West Fortuna area, an interpretive center in East Fortuna area, and multiple developed day use and camp areas. Proposals in the 1985 Master Plan that could be implemented under the existing regulatory framework include the extension of Clairemont Mesa Boulevard and Jackson Drive into the Park boundaries, providing connections to Mission Gorge Road.

More specifically, since adoption of the 1985 Master Plan, areas within and surrounding the Park have taken on greater significance as a core area for the region's sensitive biological resources and are subject to greater levels of protection under the City of San Diego MSCP Subarea Plan. Although proposed passive recreational uses envisioned by the 1985 Master Plan would be considered compatible with the Subarea Plan (Multi-Habitat Planning Area [MHPA] Guideline B10), development of the larger future uses would not be allowed under the current MSCP. For example, Subarea Plan MHPA Guideline B4 states that "[A] condition of coverage for San Diego ambrosia requires 90 percent preservation of the population at the Mission Trails Regional Park site". This requirement creates environmental constraints beyond what existed when the existing Master Plan was approved in 1985 and limits full implementation of all proposals in the existing Master Plan.

Under the No Project Alternative, the proposed Plans would not be adopted by the City and the integrated set of management guidelines focusing on public access and recreation under the MPU and natural resources under the NRMP would not be implemented. The expansion areas (East Elliott and West Sycamore areas) would not be officially incorporated into the Park boundaries and the associated Community Plan amendments would not occur. Under the No Project Alternative, the Park would not be subject to the updated policies and management recommendations in the Plans that would minimize environmental impacts. The No Project Alternative would not provide updated management recommendations that would preserve sensitive biological resources within the Park, and unauthorized use of existing trails within the Park would continue.

## **10.2.2 Environmental Analysis**

### **10.2.2.1 Impacts Similar to the Project**

Under the No Project Alternative, park management and recreational improvements would continue under the existing 1985 Master Plan. While the No Project Alternative could include the extension of Clairemont Mesa Drive and Jackson Drive into Park boundaries, overall implementation of the 1985 Master Plan would still not create significant air quality and greenhouse gas (GHG) impacts since there would be limited sources of air or GHG emissions associated with continued implementation and management of trails and park amenities. Any emissions associated with vehicles using the roadway extensions would be existing trips and not new trips generated by the Master Plan. Thus, air quality and GHG impacts of the No Project Alternative would be less than significant, similar to the Project.

Implementation of the No Project Alternative would have the potential to result in direct impacts to sensitive historical and paleontological resources through grading and disturbance during construction.

However, all development would be subject to compliance with existing Historical Resources Regulations which would protect historical resources and the existing mitigation measures associated with the 1985 Master Plan EIR. Additionally, discretionary development would be required to comply with the paleontological mitigation measures included in the General Plan EIR that require paleontological monitoring where grading exceeds a specified depth in moderate or high sensitivity formations. Therefore, impacts to historical and paleontological resources under the No Project Alternative would be less than significant with implementation of mitigation, similar to the Project.

Development of trails and other facilities under the No Project Alternative would have the potential to encounter hazardous materials, such as unexploded ordnance (UXO), during grading and construction. Development of the Park under the No Project Alternative would be subject to existing regulations regarding handling and disposing of hazardous materials and would implement applicable safety procedures where ground disturbance is required in areas with potential UXO. Therefore, impacts related to hazardous materials under the No Project Alternative would be similar to the Project.

Implementation of the No Project Alternative would not result in the expansion of public services; thus, impacts of the No Project Alternative would be less than significant. Similar to the Project, development of trails and other facilities under the existing Master Plan could require alteration of existing utilities and access roads or be located within the alignment of planned utilities and access roads. Development of the Park under the existing 1985 Master Plan would be subject to City review to evaluate potential conflicts with existing and planned utilities and develop appropriate measures to minimize impacts. Therefore, impacts under the No Project Alternative would be similar to the Project.

### **10.2.2.2 Impacts Greater Than the Project**

Similar to the Project, implementation of the No Project Alternative could result in potential conflicts with the MHPA Land Use Adjacency Guidelines, such as construction noise or introduction of recreational users. Additionally, continued management of the Park under the existing Master Plan would occur without proposed NRMP management actions which generally intend to reduce preserve-level threats to sensitive habitats and their species, thereby reducing impacts associated with MHPA Land Use Adjacency issues. Therefore, in the absence of implementation of specific actions identified in the NRMP that would provide biological enhancements to the Park and ensure consistency with the MHPA, the No Project Alternative would result in slightly greater impacts related to land use compared to the Project. Construction of the extensions of Clairemont Mesa Drive and Jackson Drive into Park boundaries would also create potential land use conflicts to a greater extent than the Project.

With respect to aesthetics, numerous MPU recommendations under the Project are generally intended to increase access to public vantage points and preserve significant viewsheds within the Park. Furthermore, some management actions under the Project may slightly improve the aesthetics of the Park by restoring natural areas. The No Project Alternative would result in continued management of the Park under the existing Master Plan which would not benefit from recommendations to enhance and restore areas of the Park. Additionally, the No Project Alternative could allow the extension of Clairemont Mesa Drive and Jackson Drive into Park boundaries and construction of additional recreational amenities that could detract from the natural visual resources within the Park. Although visual impacts under the No Project Alternative would likely be less than significant with appropriate

design, the No Project Alternative would still result in greater impacts related to aesthetics when compared to the Project due to the potential introduction of roads into the Park.

Similar to the Project, implementation of the No Project Alternative would result in impacts to biological resources associated with construction of trails and associated amenities. Additionally, the two roads could be constructed within Park boundaries that would significantly impact biological resources. However, impacts associated with development of trails, roads, and other Park facilities under the existing Master Plan could be reduced to less than significant through adherence to the MSCP, ESL Regulations, and appropriate mitigation measures consistent with the City's Biology Guidelines contained in the Land Development Manual. However, the No Project Alternative would not benefit from the policies and recommendations included in the Plans that would improve biological conditions compared to the existing condition. The No Project Alternative would not benefit from proposed trail closures or the management recommendations contained in the NRMP. For example, under the No Project Alternative, no management actions would be undertaken to protect and enhance habitats for sensitive plant species such as San Diego thornmint or San Diego ambrosia and no management actions would be taken to protect sensitive species (e.g., bats) that occupy cliff dwelling and rocky outcrops. Therefore, impacts to biological resources under the No Project Alternative would be greater than those of the Project.

The No Project Alternative would also not benefit from the various MPU recommendations and policies generally intend to improve hydrology (e.g., rerouting trails with erosional issues) and geological conditions (e.g., reduce Park user encroachment into landslide susceptible areas). The No Project Alternative would also not benefit from the management actions outlined in the NRMP that would generally improve hydrologic conditions due to the restoration of natural areas. Development of trails and other park facilities under the existing Master Plan would occur without these MPU recommendations and NRMP management actions, but would be required to comply with existing Municipal Separate Storm Sewer System requirements and the San Diego Municipal Code which would ensure impacts related to hydrology and water quality and geologic conditions would be less than significant under the No Project Alternative, similar to the project. However, in the absence of the management recommendations of the Project, the No Project Alternative would result in greater impacts related to hydrology, water quality, and geologic conditions, compared to the Project.

The MPU contains numerous policies that generally intend to improve recreational circulation and access within the Park (e.g., new access points and parking areas). Under the No Project Alternative, trail improvements and associated access improvements could also occur, but would not provide the same level of connectivity and access as the Project. In addition, the No Project Alternative would allow extensions of Clairemont Mesa Boulevard and Jackson Drive into Park boundaries. Any road extension would only be proposed if it would improve circulation and access; thus, impacts of these extensions in relation to circulation and access is assumed to be less than significant. The No Project Alternative would not benefit from the proposed trails network in the proposed Park expansion areas of East Elliot and West Sycamore. Thus, authorized recreational connectivity would be reduced under the No Project Alternative, although unauthorized access would likely continue. Therefore, impacts under the No Project Alternative would be slightly greater than the Project.

## **10.2.3 Conclusion**

Implementation of the No Project Alternative would not avoid any of the identified significant and mitigable impacts of the Project, nor would it reduce any impacts associated with the Project. The No Project Alternative would also slightly increase impacts associated with land use, visual effects, biological resources, traffic/circulation, hydrology/water quality, and geology/soils.

In addition, this Alternative would not meet any of the Project objectives as the existing Master Plan does not include the MPU recommendations that provide a structure for ongoing land and resource management actions and establish a framework for identifying unsafe or unsustainable sections of recreational trails. The existing Master Plan does not include an NRMP, which includes management actions necessary to improve biological resource conditions.

## **10.3 Reduced Project Alternative**

### **10.3.1 Description**

Under the Reduced Project Alternative, the proposed trail plan would be modified within the East Elliot area. The proposed trail plan for all other areas would remain the same. Adoption of the NRMP would occur under this Alternative, similar to the project. The Reduced Project Alternative was developed based on input provided by California Department of Fish and Wildlife and United States Fish and Wildlife Service (Wildlife Agencies). The Reduced Project Alternative would remove the proposed Sycamore Canyon connection and the trail alignment that would extend along the western boundary of the Park. This would result in two smaller trail loops in the western portion of the East Elliot area. The Wildlife Agencies requested the removal of these trail components to protect existing intact habitat, decrease the potential for the incursion of exotics species, and avoid disruption of wildlife movement, restriction of wildlife refuge areas, and negative effects to wildlife composition. Similarly, the Wildlife Agencies requested removal of the trail alignment that would pass through the Oak Canyon/State Route 52 area due to the potential for human-caused habitat disturbances to alter wildlife movement through this area. The Reduced Project Alternative would also remove the proposed east-west trail alignment south of Sycamore Landfill and would result in a reduction of associated trail amenities due to elimination of trails. The smaller footprint of the Reduced Project Alternative would reduce the amount of recreational use areas that would be constructed compared to the Project and increase the amount of land preserved as natural habitat.

As with the Project, subsequent projects implemented under the Reduced Project Alternative would be required to demonstrate consistency with biological resources regulations such as MHPA Land Use Adjacency Guidelines, or the Historical Resources Regulations for archaeological sites. Overall, this Alternative would result in similar impacts as the Project, but the overall acreage of land disturbance would be reduced due to the lesser amount of development.

## 10.3.2 Environmental Analysis

### 10.3.2.1 Impacts Less Than the Project

Similar to the Project, implementation of the Reduced Project Alternative could result in potential conflicts with the MHPA Land Use Adjacency Guidelines, such as construction noise or introduction of recreational users. The Reduced Project Alternative would also include the NRMP management actions that would generally reduce preserve-level threats to sensitive habitats and their species, thereby reducing impacts associated with MHPA Land Use Adjacency issues. As there would be fewer subsequent projects implemented under the Reduced Project Alternative, it would slightly reduce impacts related to land use compared to the Project.

Implementation of the Reduced Project Alternative could slightly reduce the cumulative effects on the visual character of the Park compared to the Project. Under this Alternative, reduction in proposed trails compared to the Project would result in less land disturbance and preserve the existing visual character to a greater degree. Although this Alternative would reduce access to scenic view points for recreational users of the Park, preservation of additional acreage of native vegetation and landform would likely reduce impacts on visual character as compared to the Project.

Air quality and GHG emission sources associated with implementation of the Project would be limited to emissions from construction of subsequent projects, which was determined to be less than significant within Sections 5.3 and 5.4 of this PEIR. The Reduced Project Alternative would reduce air quality and GHG emissions slightly primarily due to reduced construction equipment emissions associated with fewer trails and associated amenities. Therefore, when compared to the Project, the Reduced Project Alternative would slightly reduce air quality and GHG emissions, and impacts would be less than significant under both the Project and this Alternative.

Implementation of the Reduced Project Alternative would reduce impacts on biological resources compared to the MPU. Under this Alternative, construction of fewer trails and associated amenities would in turn decrease the potential for impacts on sensitive species. Additionally, the reduction in trails would reduce impacts associated with habitat fragmentation and disruption of wildlife movement. The elimination of the trail alignment that would pass through the Oak Canyon/State Route 52 area would reduce potential human-caused habitat disturbances that could affect wildlife movement through this area since. Use of recreational facilities would be further minimized, thus reducing the potential for indirect biological impacts. The Reduced Project Alternative would result in significant impacts, the same as the project, and would be subject to the same mitigation measures identified in Section 5.5. Overall, impacts would be slightly reduced compared to the Project.

Implementation of the Reduced Project Alternative would reduce potential impacts on historical, archaeological, and paleontological resources compared to the Project. Fewer trails and recreational amenities would in turn reduce the amount of soil disturbance and potential to encounter historical resources. The Reduced Project Alternative would result in significant impacts, the same as the project, and would be subject to the mitigation identified in Sections 5.6 and 5.10. Overall, impacts would be slightly reduced compared to the Project.

Implementation of the Reduced Project Alternative would reduce the extent of grading and potential disturbance of UXO or other hazardous material sites compared to the Project due to fewer trails and associated amenities. The Reduced Project Alternative would result in significant impacts, the same as the project, and would be required to adhere to the mitigation identified in Section 5.7. Overall, impacts would be slightly reduced compared to the Project.

Various MPU recommendations and policies proposed for the Project generally intended to improve hydrology (e.g., rerouting trails with erosional issues) and geological conditions (e.g., reduce Park user encroachment into landslide susceptible areas) within the Park would be preserved under the Reduced Project Alternative. Fewer trails and associated amenities would also slightly reduce these impacts by reducing the extent of grading. Subsequent projects under this Alternative would still be required to adhere to the mitigation identified in Section 5.8 and the regulatory framework addressing geologic conditions described in Section 5.9. Overall, impacts would be slightly reduced compared to the Project.

Implementation of the Project would not result in the expansion of public services, and the Reduced Project Alternative would slightly reduce the potential for impacts, as fewer trails and recreational amenities would result in fewer people using the Park, which would in turn lower the potential for additional public services such as police and fire rescue.

The potential exists that construction and grading for amenities such as trails, parking areas, and other subsequent projects implemented in accordance with the MPU could be in areas with underlying utilities or within an existing or planned City utility access paths. Potential relocation of existing utilities or an existing or planned access road is considered to be a significant impact. Implementation of the Reduced Project Alternative would slightly reduce these impacts, as it would reduce the extent of grading due to fewer trails and associated amenities. Subsequent projects under this Alternative would still be required to adhere to the mitigation identified in Section 5.13. Overall, impacts would be slightly reduced compared to the Project.

### **10.3.2.2 Impacts Similar to the Project**

It is not anticipated that the reduced number of trails and associated amenities under the Reduced Project Alternative would decrease the number of patrons visiting the Park. Consequently, traffic volumes associated with the Reduced Project Alternative would be similar to those anticipated for the Project. Policies that generally intend to improve circulation and access within the Park (e.g., new access points and parking areas) would be preserved under the Reduced Project Alternative. Similarly, the Reduced Project Alternative would include all of the parking areas proposed under the Project and it would be required to adhere to the mitigation identified in Section 5.12. Therefore, impacts related to circulation and access would likely be similar under this Alternative compared to the Project.

### **10.3.3 Conclusion**

Although the Reduced Project Alternative would not avoid any of the identified significant impacts of the Project, this Alternative would slightly reduce impacts associated with land use, visual effects, air quality, greenhouse gases, biological resources, historical resources, human health/public safety/hazardous materials, hydrology and water quality, geology and soils, paleontological resources, public services, and public utilities. Impacts related to traffic and circulation would be similar. However, this Alternative

would likely result in less usable areas of the Park, which would not fully meet the objective of providing new or alternative routes to improve the recreational connectivity of the region. Therefore, while this Alternative would slightly reduce the severity of potential impacts, it would not fully meet the objectives of the Project. Exclusion of the proposed Sycamore Canyon connection and the trail alignment that would extend along the western boundary of the Park would remove a key point of connectivity and reduce trail access for Park patrons. Although the Wildlife Agencies requested removal of those components to reduce potential impacts on biological resources, implementation of mitigation measures BIO-1 through BIO-8 would reduce impacts to biological resources associated with the Project to less than significant. Consequently, the Project objective to “provide new or alternative routes to improve the recreational connectivity while protecting the Park’s natural and cultural resources” is better met by the Project.

## **10.4 Environmentally Superior Alternative**

CEQA Guidelines Section 15126.6(e)(2) requires that an EIR identify which alternative is the environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must also identify which of the other alternatives is environmentally superior. Based on the analysis of the other alternatives considered, the Reduced Project Alternative would be the environmentally superior alternative because it would slightly reduce impacts associated with land use, visual effects, air quality, greenhouse gases, biological resources, historical resources, human health/public safety/hazardous materials, hydrology and water quality, geology and soils, paleontological resources, public services, and public utilities.

The Reduced Project Alternative would still contain updated recommendations necessary to provide a structure for ongoing land and resource management and establish a framework for identifying unsafe or unsustainable sections of recreational trails. The NRMP would still be implemented, which would in turn serve to protect biological and cultural resources within the Park. However, as described in Section 10.3.3 above, the Reduced Project Alternative would not meet the project objective to “provide new or alternative routes to improve the recreational connectivity while protecting the Park’s natural and cultural resources.” Specifically, this Alternative would not make critical trail connections (the Sycamore Canyon connection and the trail alignment that would extend along the western boundary of the Park) that would be provided by the Project.



## Chapter 11

### References

The following documents were used, referenced, or relied on in preparing this PEIR, and the documents are available for public review and inspection at the City of San Diego. Some documents are additionally available for review on the City of San Diego website page at [www.sandiego.gov](http://www.sandiego.gov).

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## **Chapter 12**

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Agencies and individuals contacted during preparation of the EIR include the following:

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### **U.S. Fish and Wildlife Service**

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## **Chapter 13**

### **Certification**

This document has been completed by the City's Environmental Section under the direction of the Planning Department Deputy Director and is based on independent analysis and determinations made pursuant to the San Diego Land Development Code Section 128.0103.

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