The City of SAN DIEGO
City Planning Department
Environmental Policy & Public Spaces Division

DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT

SCH No. 2019029037

SUBJECT: **BROWN FIELD MUNICIPAL AIRPORT MASTER PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT**

Applicant: City of San Diego City Planning Department

DRAFT DOCUMENT: February 19, 2025

PROJECT DESCRIPTION:

The proposed AMP presents the community and airport's vision for a 20-year strategic development plan based on the forecast of activity. The AMP is used as a decision-making tool and is intended to complement other local and regional plans. It articulates a long-range, comprehensive policy framework and vision for future operations, the capacity of airport infrastructure, facility requirements (the airport's needs based on the forecast and compliance with FAA Airport Design Standards), development and evaluation of options to meet those needs, a phasing plan for implementing improvements, and a funding plan for the identified improvements. In addition, the AMP documents the existing conditions of the Airport.

PROJECT LOCATION:

The City Airports Division owns and operates SDM as a general aviation airport located within the Otay Mesa community. The Airport is located within the Otay Mesa Community Plan (OMCP) area in the southern portion of the City. The Airport is bound by Otay Mesa Road to the south, Heritage Road to the west, La Media Road to the east, and open space to the north. SDM encompasses approximately 889 acres, located approximately 1.5 miles north of the Mexican border (two miles from Tijuana International Airport), five miles northeast of Tijuana, Mexico, 14 miles southeast of San Diego, California, and seven miles southeast of Chula Vista, California. SDM is the closest general aviation airport to the Mexican border and is accessible via the Otay Mesa Freeway (State Route [SR] 905) from the south and the South Bay Expressway (SR 125) from the east. Interstate (I-) 805 runs in a north-south direction to the west of the Airport, the South Bay Expressway (SR 125) runs in a north-south direction to the east of the Airport, and the Otay Mesa Freeway (SR 905) runs in an east-west direction to the south of the Airport. To the east, west, and south is a mix of commercial, industrial, and open space land use. North of the Airport, there is also Industrial and Open Space, as well as a block of Military use. Residential use encroaches off the northwest end of the Airport. To the far east, Otay Mountain, part of the San Ysidro Mountains, rises to an elevation of 3,566 feet and is a major scenic vista for the region.

ENVIRONMENTAL DETERMINATION:

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 a reasonable range of alternatives to the project.

Based on the analysis conducted for the project described above, the City of San Diego has prepared the following Draft PEIR in accordance with CEQA. The analysis identified that the implementation of the proposed project would not have any significant and unavoidable impacts. The following areas were determined to have impacts, that with mitigation were determined to be less than or not significant; Biological Resources, Greenhouse Gas Emissions, Historical, Archaeological, & Tribal Resources, Human Health, Public Safety, and Hazardous Materials, Land Use. All other impacts analyzed in this Draft PEIR were found to be less than or not significant.

This document has been prepared by the City of San Diego's City Planning Department and is based on the City's independent analysis and determinations made pursuant to Section 21082.1 of the California Environmental Quality Act (CEQA) and Section 128.0103(a) and (b) of the San Diego Municipal Code.

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.

Rebecca Malone

Rebecca Malone, Program Manager
City Planning Department

February 19, 2025
Date of Draft Report

Date of Final Report

Analyst: G.Johansen

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 and any technical appendices may be reviewed in the office of the City Planning Department, or purchased for the cost of reproduction.

FEDERAL GOVERNMENT
Federal Aviation Administration (1)
U.S. Department of Transportation, Federal Highway Administration (2)
Naval Facilities Engineering Command Southwest, Karen Ringel-Director of Real Estate (8)
Naval Facilities Engineering Command Southwest (12)
Army Corps of Engineers (16 & 26)
U.S. Environmental Protection Agency (19)
Border Patrol (22)
U.S. Fish and Wildlife Service (23)
USDA Natural Resources Conservation Services (25)

STATE OF CALIFORNIA
State Clearinghouse (46A)
Caltrans District 11 (31)
Department of Fish and Wildlife (32)
Cal Recycle (35)
California Environmental Protection Agency (37A)
Department of Toxic Substance Control (39)
Natural Resources Agency (43)
Regional Water Quality Control Board, Region 9 (44)
California Air Resources Board (49)
California Transportation Commission (51)
California Department of Transportation (51A & 51B)
Native American Heritage Commission (56)
Highway Patrol (58)
California Energy Commission (59)

COUNTY OF SAN DIEGO
Air Pollution Control District (65)
Planning and Development Services (68)
County Water Authority (73)
Department of Environmental Health (76)

CITY OF SAN DIEGO
Office of the Mayor (91)

Libraries
Central Library, Government Documents (81 & 81A)
Otay Mesa-Nestor Branch Library (81W)
San Ysidro Branch Library (81EE)

City Advisory Boards or Committees
Historical Resources Board (87)
Wetlands Advisory Board (91A)

OTHER CITY GOVERNMENTS
City of Chula Vista (94)
San Diego Association of Governments (108)
Metropolitan Transit System (112/115)
San Diego Gas & Electric (114)

SCHOOL DISTRICTS
Chula Vista School District (118)
San Ysidro Unified School District (127)
San Diego Unified School District (132)
San Diego Community College District (133)

COMMUNITY PLANNING GROUPS OR COMMITTEES
Otay Mesa Nestor Planning Committee (228)
Theresa Acerro (230)
Otay Mesa Chamber of Commerce (231A)
OVRP-San Diego County Parks (232)
Janay Kruger (233)
City of Chula Vista, Planning Department (234)
Otay Mesa Planning Committee (235)
Janet Vadakkumcherry (236)
San Ysidro Planning Group (433)
United Border Community Town Council (434)

OTHER AGENCIES, ORGANIZATIONS, AND INDIVIDUALS
Sierra Club San Diego Chapter (165)
San Diego Natural History Museum (166)
San Diego Audubon Society (167)
Jim Peugh (167A)
Environmental Health Coalition (169)
California Native Plant Society (170)
Citizens Coordinate for Century 3 (179)
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Rincon Band of Luiseno Indians (225Q)
San Luis Rey Band of Luiseno Indians (225R)
Los Coyotes Band of Mission Indians (225S)

The City of SAN DIEGO

Program Environmental Impact Report for the Brown Field Municipal Airport Master Plan

SCH No. 2019029037







January 2025

Prepared for:

City of San Diego

202 C Street, M.S. 413

San Diego, CA 92101

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Brown Field Municipal Airport Master Plan
Draft Program Environmental Impact Report

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Acronyms and Abbreviations

°F	degrees Fahrenheit
µPa	micro-Pascals
AB	Assembly Bill
ADL	aerially deposited lead
ACM	asbestos containing materials
ADRP	Archaeological Data Recovery Plan
AEDT	Aviation Environmental Design Tool
AEP	Airport Emergency Plan
AF	acre-feet
AFFF	aqueous film forming foam
AGR	Agricultural Supply
AIA	Airport Influence Area
AIP	Airport Improvement Program
ALP	Airport Layout Plan
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AME	Archaeological Monitoring Exhibit
AMSL	above mean sea level
AMP	Airport Master Plan
APE	Area of Potential Effect
APU	auxiliary power unit
AQIA	Air Quality Impact Assessment
AQUA	Aquaculture
ASMD	Area Specific Management Directives
AST	Aboveground Storage Tank
ATADS	Air Traffic Activity Data System
ATC	Air Traffic Control
ATCT	Airport Traffic Control Tower
BAAQMD	Bay Area Air Quality Management District
BCME	Biological Construction Mitigation/Monitoring Exhibit
BI	Building Inspector
BIOL	Preservation of Biological Habitats of Special Significance
BMPs	best management practices
BUOW	burrowing owl
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CAL-NAGPRA	California Native American Graves Protection and Repatriation Act

CalRecycle	California Department of Resources Recycling and Recovery
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
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDWR	California Department of Water Resources
CEC	contaminants of emerging concern
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFG Code	California Fish and Game Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information Systems
CIP	Capital Improvements Program
City	City of San Diego
CM	Construction Manager
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
COMM	Commercial and Sport Fishing
County	County of San Diego
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CSVR	Consultant Site Visit Record
CUPA	Certified Unified Program Agency
CVOCs	chlorinated volatile organic compounds
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
DEH	Department of Environmental Health
DIFs	Development Impact Fees
DOC	California Department of Conservation
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control

EAA	Experimental Aircraft Association
EAS	Environmental Analysis Section
EIR	Environmental Impact Report
EMS	emergency medical services
EO	Executive Order
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESA	Environmental Science Associates
ESL	Environmentally Sensitive Land
FAA	Federal Aviation Administration
FAR	floor-area-ratio
FBO	Fixed Base Operator
FE	federally listed endangered species
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FOD	foreign object debris
General Plan	City of San Diego General Plan
GHG	greenhouse gas
GPS	Global Positioning Systems
H&SC	California Health and Safety Code
HFCs	hydrofluorocarbons
HIRL	High Intensity Runway Lighting
HMBP	Hazardous Materials Business Plan
HMD	Hazardous Materials Division
HMP	Hydromodification Management Plan
hp	horsepower
HRB	Historic Resources Board
HRS	Hazard Ranking System
Hz	Hertz
I-	Interstate
IA	Implementing Agreement
IAPS	instrument approach procedures
IEM	Iowa Environmental Mesonet
IFS	Impact Fee Study
IND	Industrial Service Supply
in/sec	inches per second
IWRP	Integrated Water Resources Plan
kHz	kilohertz
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
LDC	Land Development Code
L_{DN}	Day-Night sound level
LID	low impact development

MAP	Metropolitan Airpark Project
MAR	Marine Habitat
MBTA	Migratory Bird Treaty Act
MCAS	Marine Corps Air Station
MHMP	Multi-Jurisdictional Hazard Mitigation Plan
MHPA	Multi-Habitat Planning Area
MIGR	Migration of Aquatic Organism
MIRL	Medium Intensity Runway Lighting
MITL	Medium Intensity Taxiway Lighting
MLD	Most Likely Descendent
MMC	Mitigation Monitoring and Coordination
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MND	mitigated negative declaration
MPOs	metropolitan planning organizations
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
MT	metric tons
MWD	Metropolitan Water District of Southern California
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NAHC	Native American Heritage Commission
NAV	Navigation
NAVAIDS	navigational aids
NCCP	Natural Community Conservation Planning
NE	Narrow Endemic
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
N_2O	nitrous oxide
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NOV	Notice of Violation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPIAS	National Plan of Integrated Airport Systems
NPL	National Priorities List
NRHP	National Register of Historic Places
NSLU	Noise-sensitive land use
O_3	ozone
OHP	Office of Historic Preservation
OITC	Outdoor-Indoor Sound Transmission Class
OMCP	Otay Mesa Community Plan
OMCPU	Otay Mesa Community Plan Update
OSHA	Occupational and Safety Health Administration

PAC	Planning Advisory Committee
PAPI	Precision Approach Path Indicator
Pb	lead
PCBs	polychlorinated biphenyls
PCE	tetrachloroethylene
PCI	Pavement Condition Index
PEIR	Program Environmental Impact Report
PFAs	per-and polyfluoroalkyl substances
PFCs	perfluorocarbons
PMMP	Pavement Maintenance Management Plan
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PUD	Public Utilities Department
PUs	Planning Units
RARE	Rare, Threatened or Endangered Species
RAQS	Regional Air Quality Strategy
RASP	Regional Aviation Strategic Plan
RE	Resident Engineer
REC-1	Contact Water Recreation
REC-2	Non-contact Water Recreation
REILs	Runway End Identifier Lights
RMS	root mean square
RNAV	area navigation
ROFA	runway object free areas
ROG	Reactive Organic Gas
RPZ	Runway Protection Zone
RSA	runway safety areas
RTP	Regional Transportation Plan
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SanGIS	San Diego Geographic Information Source
SAP	Subarea Plan
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCIC	South Coastal Information Center
SCS	Sustainable Communities Strategy
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SDCRAA	San Diego County Regional Airport Authority
SDCWA	San Diego County Water Authority
SDFD	San Diego Fire-Rescue Department
SDI	Service Delivery Identification

SDM	Brown Field Municipal Airport (airport code)
SDMC	San Diego Municipal Code
SDMMP	San Diego Management and Monitoring Program
SDPD	San Diego Police Department
SDRHR	San Diego Register of Historical Resources
SDSU	San Diego State University
SDWA	Safe Drinking Water Act
SE	state listed endangered species
SF	square foot/feet
SF_6	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SHELL	Shellfish Harvesting
SIP	State Implementation Plan
SO_2	sulfur dioxide
SPL	sound pressure level
SPWN	Spawning, Reproduction and/or Early Development
SR	State Route
SRA	State Responsibility Area
SSC	Species of Special Concern
STC	Sound Transmission Class
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SY	square yard
TAC	toxic air contaminant
TAF	Terminal Area Forecast
TCE	trichloroethylene
TCM	Transportation Control Measure
THPO	Tribal Historic Preservation Office
TMDL	Total Maximum Daily Load
TOFA	Taxiway Object Free Area
TPH	total petroleum hydrocarbons
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
VdB	vibration decibels
VHFHSZ	Very High Fire Hazard Severity Zone
VOC	volatile organic compound
VMT	vehicle miles traveled
VOR	Very High Frequency Omni-Directional Range
VPHCP	Vernal Pool Habitat Conservation Plan
VPMMP	Vernal Pool Management and Monitoring Plan

WARM	Warm Freshwater Habitat
WILD	Wildlife Habitat
WL	Watch List Species
WMP	Waste Management Plan
WPCP	Water Pollution Control Plan
WQIP	Water Quality Improvement Plan
WSA	Water Supply Assessment
WWI	World War I
WWII	World War II

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SUMMARY

This Program Environmental Impact Report (PEIR) for the proposed Brown Field Municipal Airport (referred to as the "Airport" or by its Federal Aviation Administration [FAA] identifier "SDM") Master Plan and other associated discretionary actions (the "project") has been prepared in compliance with the California Environmental Quality Act (CEQA) Statute and Guidelines (Public Resources Code [PRC], Section 21000 et seq. and California Code of Regulations [CCR], Title 14, Section 15000, et seq.) and in accordance with the City of San Diego's (City) CEQA *Significance Determination Thresholds* (City 2022a).

The proposed Airport Master Plan (AMP) incorporates relevant policies from the City of San Diego General Plan (General Plan), and provides a long-range, comprehensive policy framework and vision for future operations, the capacity of airport infrastructure, and facility requirements. The proposed AMP provides an evaluation of options to meet those needs, a phasing plan for implementing improvements, and a funding plan for the identified improvements.

A PEIR is intended to inform decision-makers and the general public of the potential significant environmental impacts of a proposed project. The PEIR also considers the availability of mitigation measures to minimize significant impacts and evaluates reasonable alternatives to the proposed AMP that may reduce or avoid one or more significant environmental effects.

S.1 Proposed Project

S.1.1 Project Location and Setting

The City Airports Division owns and operates SDM as a general aviation airport located within the Otay Mesa community. The Airport is located within the Otay Mesa Community Plan (OMCP) area in the southern portion of the City. The Airport is bound by Otay Mesa Road to the south, Heritage Road to the west, La Media Road to the east, and open space to the north. SDM encompasses approximately 889 acres, located approximately 1.5 miles north of the Mexican border (two miles from Tijuana International Airport), five miles northeast of Tijuana, Mexico, 14 miles southeast of San Diego, California, and seven miles southeast of Chula Vista, California.

SDM is the closest general aviation airport to the Mexican border and is accessible via the Otay Mesa Freeway (State Route [SR] 905) from the south and the South Bay Expressway (SR 125) from the east. Interstate (I-) 805 runs in a north-south direction to the west of the Airport, the South Bay Expressway (SR 125) runs in a north-south direction to the east of the Airport, and the Otay Mesa Freeway (SR 905) runs in an east-west direction to the south of the Airport.

To the east, west, and south is a mix of commercial, industrial, and open space land use. North of the Airport, there is also Industrial and Open Space, as well as a block of Military use. Residential use encroaches off the northwest end of the Airport. To the far east, Otay Mountain, part of the San Ysidro Mountains, rises to an elevation of 3,566 feet and is a major scenic vista for the region.

S.1.2 Project Description

The proposed AMP presents the community and airport's vision for a 20-year strategic development plan based on the forecast of activity. The AMP is used as a decision-making tool and is intended to complement other local and regional plans. It articulates a long-range, comprehensive policy framework and vision for future operations, the capacity of airport infrastructure, facility requirements (the airport's needs based on the forecast and compliance with FAA Airport Design Standards), development and evaluation of options to meet those needs, a phasing plan for implementing improvements, and a funding plan for the identified improvements. In addition, the AMP documents the existing conditions of the Airport.

S.2 Project Objectives

In accordance with CEQA Guidelines Section 15124(b), the following specific objectives for the proposed AMP support the purpose of the project: to assist the City as lead agency in developing a reasonable range of alternatives to evaluate in this PEIR and will ultimately aid the lead agency in preparing findings and overriding considerations, if necessary. The primary objectives of the proposed AMP are to:

1. Implement safety improvements necessary to bring the airport into compliance with FAA regulations and design criteria.

2. Adapt to the transformational changes that have occurred in the aviation industry to ensure alignment with current federal regulations, design standards, fleet mix, aircraft operational characteristics, and airport land use policies.

3. Accommodate regional demand for hangar, tie-down, and terminal building space utilizing a phased implementation schedule for the proposed improvements.

4. Maintain a balance between the airport users and the surrounding community while encouraging airport business growth and opportunities.

5. Preserve natural and historic resources within airport lands.

S.3 Areas of Known Controversy/Concern

To initiate the public scoping process for this PEIR in accordance with CEQA, the City circulated a Notice of Preparation (NOP) on February 7, 2019, for a 30-day public review and comment period. The City held a public scoping meeting on February 27, 2019. CEQA-related issues of potential concern raised in response to the NOP include issues related to transportation and circulation, potential impacts to the Otay Ranch Preserve and Otay Valley Regional Park, historical and cultural resources, potential impacts to federally and/or state listed species of special concern supported within the project area, and potential impacts to designated critical habitats adjacent to the airport property. A request was made for the topics of air quality, biological resources, energy conservation, geology and soils, greenhouse gas emissions, health and safety, hydrology and water quality, land use, noise, paleontological resources, public services and facilities, public utilities, the proposed construction schedule, and animal conservation to be addressed in the PEIR. These issues have been

identified as areas of known concern and are addressed throughout this PEIR. The NOP and comment letters are included in this PEIR as Appendix A.

S.4 Alternatives

To fully evaluate the environmental effects of proposed projects, CEQA mandates that alternatives to the proposed project be analyzed. Section 15126.6 of the 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 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 proposed AMP are evaluated in Chapter 8, *Alternatives*, of this PEIR. The evaluations analyze the ability of each alternative to further reduce or avoid the significant environmental effects of the proposed AMP. 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 project: No Project Alternative and Reduced Project Alternative.

S.4.1 No Project Alternative

Under the No Project Alternative, the most recently adopted Airport Layout Plan (ALP) would continue to guide development. The current ALP was approved by the FAA in 2005, and some of the ALP components and improvements, such as the shortening of Runway 8L-26R, increasing the length of the parallel runway 8R-26L, installation of new approach landing aids and lighting, and the relocation of the airport entrance have been constructed and are currently operational. However, there are some components of the 2005 ALP that have yet to come to fruition and are considered as part of the No Project Alternative. For example, the closed taxiway adjacent to Taxiway B would be demolished, eliminating foreign object debris (FOD) concerns. The 2005 ALP designates areas as future aviation but does not contain any specific development proposal.

Much of the area that is currently approved for development as part of the Metropolitan Airpark Project (MAP)is designated as non-aviation and general aviation on the 2005 ALP. Given that these areas have been approved for development as part of a separate planning process, these areas are not considered in the No Project Alternative. Further, because improvements associated with addressing current and future projections for aircraft activity would not occur, the No Project Alternative assumes that a reduced number of future aircraft operations would result compared to the proposed AMP over the planning period, due to the lack of accommodating facilities (such as hangars).

The purpose of evaluating the No Project Alternative is to allow decision-makers to compare the potential impacts of approving the proposed AMP with the potential impacts of not approving the proposed AMP. The No Project Alternative represents what would reasonably be expected to occur in the foreseeable future if the proposed AMP were not approved.

S.4.2 Reduced Project Alternative

The Reduced Project Alternative proposes a reduction in the scale of the development footprint associated with the landside improvements. The number of hangars developed in the west area of the airfield would be reduced, the 23 hangars near the new maintenance building would not be constructed, and the number of proposed vehicle parking spaces would be reduced. In addition, the proposed wash rack would not be constructed, and the rehabilitation of the terminal facility would not occur. All other landside improvements would be the same as the proposed AMP.

The airside improvements would remain the same as the proposed AMP, including the improvements to Taxiway A (pavement removal), Taxiway B (pavement demolishing), Taxiway C (reconfiguration to 90 degrees), and Taxiway D (pavement demolishing and reconfiguration to dual taxiways). Further, because the extent of the improvements associated with addressing current and future projections for aircraft activity would not occur, the Reduced Project Alternative assumes that a reduced number of future aircraft operations would result compared to the proposed AMP over the planning period.

S.4.3 Environmentally Superior Alternative

The CEQA Guidelines require the identification of an Environmentally Superior Alternative among the alternatives analyzed in an EIR. The guidelines also require that if the No Project Alternative is identified as the Environmentally Superior Alternative, another Environmentally Superior Alternative must be identified.

Based on a comparison of the overall environmental impacts for the described alternatives, the No Project Alternative is identified as the Environmentally Superior Alternative. This alternative would not result in potentially significant impacts associated with biological resources; historic, archaeological and tribal cultural resources; hazards and hazardous materials; and construction vibration. The No Project Alternative would not meet the objectives of the AMP, except for Objective 5. In particular, safety improvements associated with bringing the Airport into compliance with current FAA regulations would not occur, which may result in decreased operational safety associated with future aircraft operations.

Of the remaining alternatives, the Environmentally Superior Alternative is the Reduced Project Alternative as it would reduce impacts that would require mitigation, including biological resources, archaeological and tribal cultural resources, and hazards and hazardous materials. However, mitigation for these issues would still be required. The Reduced Project Alternative would eliminate the need for mitigation associated with historic resources and construction vibration. Other impacts that were considered less than significant for the AMP would be further lessened under the Reduced Project Alternative.

Because the Reduced Project Alternative would implement the airside improvements associated with the AMP, it would fulfill the two objectives associated with improving the safety of aircraft operations. It would also fulfill the objective related to preserving natural and historic resources. However, it would only partially fulfill two objectives of the AMP, including the two related to landside facilities, by accommodating projected growth for the Airport.

S.5 Summary of Significant Impacts and Mitigation Measures That Reduce the Impact

No significant and unavoidable impacts due to the implementation of the AMP have been identified in this PEIR. Table S-1 summarizes the results of the environmental analysis, including the potentially significant environmental impacts of the proposed AMP and proposed mitigation measures to reduce or avoid these impacts. Table S-2, *Summary of Cumulative Impacts,* summarizes the AMP's cumulative impacts on the environment.

Impacts and mitigation measures are organized by issue in Chapter 5, *Environmental Analysis*. Chapter 5 also includes discussions of proposed policies that would reduce identified impacts. Chapter 6, *Cumulative Impacts*, includes an analysis of cumulative impacts of the proposed AMP for each issue.

Pursuant to CEQA Guidelines Section 15126, all components associated with the proposed AMP are considered in this PEIR at the program level when evaluating potential impacts on the environment, including the construction of future development and supporting facilities and utilities.

Table S-1
SUMMARY OF IMPACTS AND PROPOSED MITIGATION

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
5.1 AIR QUALITY				
Conflicts with Air Quality Plans	The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	No mitigation is necessary.	Less than Significant
Air Quality Standards	The proposed project would not result in a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.	Less than Significant	No mitigation is necessary.	Less than Significant
Sensitive Receptors	The proposed project would not expose sensitive receptors to substantial pollutant concentrations, including toxins.	Less than Significant	No mitigation is necessary.	Less than Significant
Odors	The proposed project would not create objectionable odors affecting a substantial number of people.	Less than Significant	No mitigation is necessary.	Less than Significant
5.2 BIOLOGICAL RESOURCES				
Sensitive Species	The proposed project could result in a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the Multiple Species Conservation Program (MSCP) or other local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).	Potentially Significant	• MM BIO-1: Project-specific Biological Resource Surveys • MM BIO-2: Burrowing Owl Pre-construction Survey • MM BIO-3: Burrowing Owl Occupied Habitat • MM BIO-7: Construction Plan Requirements	Less than Significant

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
Sensitive Habitats	The proposed project could result in a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats, as identified in the Biology Guidelines of the Land Development Manual, or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.	Potentially Significant	• MM BIO-4: Sensitive Habitat Mitigation Ratios • MM BIO-5: Vernal Pool Surveys • MM BIO-6: Biological Monitoring During Construction • MM BIO-7: Construction Plan Requirements	Less than Significant
Wetlands	The proposed project would not result in a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means.	Less than Significant	No mitigation is necessary.	Less than Significant
Wildlife Movement	The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites.	No Impact	No mitigation is necessary.	No Impact
Conservation Planning	The proposed project would not result in a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan (NCCP), or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region.	Less than Significant	No mitigation is necessary.	Less than Significant

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
5.3 GEOLOGY AND SOILS				
Seismic Hazards	The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides.	Less than Significant	No mitigation is necessary.	Less than Significant
Erosion and Sedimentation	The proposed project would not result in substantial soil erosion or loss of topsoil.	Less than Significant	No mitigation is necessary.	Less than Significant
Geologic Instability	The proposed project would not be located on a geologic unit or soil that is unstable or that would become unstable as a result of the proposed AMP, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Less than Significant	No mitigation is necessary.	Less than Significant
5.4 GREENHOUSE GAS EMISSIONS				
Greenhouse Gas Emissions	The proposed project could generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially Significant	• MM GHG-1: Prohibition of Natural Gas Use in City Facilities • MM GHG-2: Construction and Demolition Waste Diversion	Less than Significant
Conflict with GHG Reduction Plans or Policies	The proposed project could conflict with the City's Climate Action Plan (CAP) or another applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.	Potentially Significant	• MM GHG-1: Prohibition of Natural Gas Use in City Facilities • MM GHG-2: Construction and Demolition Waste Diversion	Less than Significant

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
5.5 HISTORICAL, ARCHAEOLOGICAL, & TRIBAL RESOURCES				
Historic Structures, Objects, or Sites	The proposed project could result in an alteration, including the adverse physical or aesthetic effects and/or the destruction of a historic building (including an architecturally significant building), structure, object, or site.	Potentially Significant	• MM HIST-1: Secretary of the Interior's Standards for the Treatment of Historic Properties • MM HIST-2: Evaluation of Historic Resources	Less than Significant
Prehistoric and Historic Archaeological Resources, Sacred Sites, and Human Remains	The proposed project could result in a substantial adverse change in the significance of a prehistoric or historic archaeological resource, a religious or sacred use site, or the disturbance of any human remains, including those interred outside of formal cemeteries.	Potentially Significant	• MM HIST-3: Archaeological Monitoring Program	Less than Significant
Tribal Cultural Resources	The proposed project could result in a substantial adverse change in the significance of a tribal cultural resource.	Potentially Significant	• MM HIST-3: Archaeological Monitoring Program	Less than Significant
5.6 HUMAN HEALTH, PUBLIC SAFETY, AND HAZARDOUS MATERIALS				
Wildland Fire Risk	Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including when wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Less than Significant	No mitigation is necessary.	Less than Significant
Hazardous Emissions and Materials in Proximity to Schools	Implementation of the proposed project would not result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter mile of an existing or proposed school.	No Impact	No mitigation is necessary.	Less than Significant

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
Emergency Response Plans	Implementation of the proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.	Less than Significant	No mitigation is necessary.	Less than Significant
Hazardous Materials Sites	The improvement projects within the proposed project could 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.	Potentially Significant	• MM HAZ-1: Construction Health and Safety Plan • MM HAZ-2: Soil Vapor Intrusion Assessment • MM HAZ-3: Phase I Environmental Site Assessment	Less than Significant
Areas of Potential Environmental Concern	The project area could be located within 1,000 feet of a known contamination, within 2,000 feet of a known Superfund site, or have a closed Department of Environmental Health (DEH) file.	Potentially Significant	• MM HAZ-1: Construction Health and Safety Plan • MM HAZ-2: Soil Vapor Intrusion Assessment • MM HAZ-3: Phase I Environmental Site Assessment	Less than Significant
Upset or Accidental Release of Hazardous Materials	The project could create a significant hazard to the public or environment through the reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.	Potentially Significant	• MM HAZ-1: Construction Health and Safety Plan • MM HAZ-2: Soil Vapor Intrusion Assessment • MM HAZ-3: Phase I Environmental Site Assessment	Less than Significant
Aircraft Hazards	The project would not result in a safety hazard for people residing or working in SDM's AIA.	Less than Significant	No mitigation is necessary.	Less than Significant

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
5.7 HYDROLOGY AND WATER QUALITY				
Flooding and Drainage Patterns	The proposed project would not result in flooding due to an increase in impervious surfaces, changes in absorption rates, drainage patterns, or the rate of surface runoff.	Less than Significant	No mitigation is necessary.	Less than Significant
Flood Hazard Areas	The proposed project would not place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map which would impede or redirect flood flows.	Less than Significant	No mitigation is necessary.	Less than Significant
Water Quality	The proposed project would not result in a substantial increase in pollutant discharge to receiving waters and increase discharge of identified pollutants to an already impaired water body.	Less than Significant	No mitigation is necessary.	Less than Significant
Groundwater	The proposed project would not deplete groundwater supplies, degrade groundwater quality, or interfere with groundwater recharge.	Less than Significant	No mitigation is necessary.	Less than Significant
5.8 LAND USE				
Consistency with Environmental Policies of Adopted Land Use Plans	Implementation of the proposed project would not conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan or regulation and, as a result, cause an indirect or secondary environmental impact.	Less than Significant	No mitigation is necessary.	Less than Significant

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
Consistency with the Multiple Species Conservation Program Subarea Plan and Vernal Pool Habitat Conservation Plan	The proposed project would not conflict with the provisions of the City's Multiple Species Conservation Program (MSCP) Subarea Plan (SAP) or other approved local, regional, or state habitat conservation plan.	Less than Significant	No mitigation is necessary.	Less than Significant
Consistency with Adopted Airport Land Use Compatibility Plans	The proposed project would not result in land uses which are not compatible with an adopted Airport Land Use Compatibility Plan (ALUCP).	Less than Significant	No mitigation is necessary.	Less than Significant
Community Division	Implementation of the proposed project would not physically divide an established community.	No Impact	No mitigation is necessary.	No Impact
5.9 NOISE				
Ambient Noise	The proposed project would not result in or create a significant increase in the existing ambient noise levels.	Less than Significant	No mitigation is necessary.	Less than Significant
Noise – Land Use Compatibility	The proposed project would not cause exposure of people to current or future transportation noise levels which exceed standards established in the Noise Element of the General Plan.	Less than Significant	No mitigation is necessary.	Less than Significant
Aircraft Noise	The proposed project would not result in land uses which are not compatible with aircraft noise levels as defined by an adopted ALUCP.	Less than Significant	No mitigation is necessary.	Less than Significant
San Diego Municipal Code – On-site Generated Noise	The proposed project would not result in the exposure of people to noise levels which exceed property line limits established in the Noise Abatement and Control Ordinance of the San Diego Municipal Code (SDMC).	Less than Significant	No mitigation is necessary.	Less than Significant
Construction Noise	The proposed project would not result in the exposure of people to significant temporary construction noise.	Less than Significant	No mitigation is necessary.	Less than Significant

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
Vibration	The proposed project could result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	Potentially Significant	• MM VIB-1: Construction Vibration Limits Near Historic Structures	Less than Significant
5.10 PUBLIC SERVICES AND FACILITIES				
Public Facilities	The proposed project would not promote growth patterns resulting in the need for and/or provision of new or physically altered public facilities (including police protection, fire/life safety protection, parks or other recreational facilities, schools, or libraries), the construction of which could cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives.	Less than Significant	No mitigation is necessary.	Less than Significant
5.11 PUBLIC UTILITIES				
Water Supply	The proposed project would not use excessive amounts of water beyond projected available supplies.	Less than Significant	No mitigation is required.	Less than Significant
Utilities	The proposed project would not promote growth patterns resulting in the need for and/or provision of new or physically altered utilities, the construction of which could cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives.	Less than Significant	No mitigation is required.	Less than Significant
Solid Waste Management	The proposed project would not result in impacts to solid waste management, including the need for construction of new solid waste infrastructure; or result in a land use plan that would not promote the achievement of a 75 percent waste diversion as targeted in Assembly Bill (AB) 341 and the City's CAP.	Less than Significant	No mitigation is required.	Less than Significant

Environmental Issue	Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
5.12 VISUAL EFFECTS AND NEIGHBORHOOD CHARACTER				
Scenic Vistas or Views	Implementation of the proposed project would not result in a substantial obstruction of a vista or scenic view from a public viewing area identified in the OMCP.	Less than Significant	No mitigation is required.	Less than Significant
Neighborhood Character	Implementation of the proposed project would not result in a substantial alteration (e.g., bulk, scale, materials or style) to the existing or planned (adopted) character of the area.	Less than Significant	No mitigation is required.	Less than Significant
Landform Alteration	The proposed project would not result in a substantial change in the existing landform.	Less than Significant	No mitigation is required.	Less than Significant
Light and Glare	The proposed project would not create substantial light or glare which would adversely affect daytime or nighttime views in the area.	Less than Significant	No mitigation is required.	Less than Significant
Loss of Distinctive or Landmark Trees	The proposed project would not result in the loss of any distinctive or landmark tree(s) or stand of mature trees as identified in the OMCP.	Less than Significant	No mitigation is required.	Less than Significant

Table S-2
SUMMARY OF CUMULATIVE IMPACTS

Environmental Issue	Geographic Scope of the Cumulative Analysis	Cumulatively Considerable Impact?
5.1 AIR QUALITY		
Conflicts with Air Quality Plans	The South Diego Air Basin (SDAB).	No.
Air Quality Standards	The SDAB.	No.
Sensitive Receptors	The area in the immediate vicinity of the AMP improvements.	No.
Odors	The area immediately surrounding potential odor sources.	No.
5.2 BIOLOGICAL RESOURCES		
Sensitive Species	Land covered under the County of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan (SAP).	Not cumulatively considerable with implementation of MM BIO-1, MM BIO-2, MM BIO-3, and MM BIO-7.
Sensitive Habitats	Land covered under the County of San Diego's MSCP SAP.	Not cumulatively considerable with implementation of MM BIO-4, MM BIO-5, and MM BIO-6.
Wetlands	Land covered under the County of San Diego's MSCP SAP.	No.
Wildlife Movement	Land covered under the County of San Diego's MSCP SAP.	No.
Conservation Planning	Land covered under the County of San Diego's MSCP SAP.	No.
5.3 Geology and Soils		
Seismic Hazards	Impacts are generally site-specific and not cumulative in nature.	No.
Erosion and Sedimentation	The watersheds downstream from the Airport.	No.
Geologic Instability	Impacts are generally site-specific and not cumulative in nature.	No.
5.4 GREENHOUSE GAS EMISSIONS		
Greenhouse Gas Emissions	The global atmosphere.	No.
Conflict with GHG Reduction Plans or Policies	The global atmosphere.	No.
5.5 HISTORICAL, ARCHAEOLOGICAL, & TRIBAL RESOURCES		
Historic Structures, Objects, or Sites	The Airport.	Not cumulatively considerable with implementation of MM HIST-1 and MM HIST-2
Prehistoric and Historic Archaeological Resources, Sacred Sites, and Human Remains	Areas with moderate and high cultural resource sensitivity within the city.	Not cumulatively considerable with implementation of MM HIST-3

Environmental Issue	Geographic Scope of the Cumulative Analysis	Cumulatively Considerable Impact?
Tribal Cultural Resources	Areas with moderate and high cultural resource sensitivity within the city.	Not cumulatively considerable with implementation of MM HIST-3
5.6 HUMAN HEALTH, PUBLIC SAFETY, AND HAZARDOUS MATERIALS		
Wildland Fire Risk	Community of Otay Mesa.	No.
Hazardous Emissions and Materials in Proximity to Schools	Community of Otay Mesa.	No.
Emergency Response Plans	Community of Otay Mesa.	No.
Hazardous Materials Sites	Impacts are generally site-specific and not cumulative in nature.	No.
Areas of Potential Environmental Concern	Impacts are generally site-specific and not cumulative in nature.	No.
Upset or Accidental Release of Hazardous Materials	Impacts are generally site-specific and not cumulative in nature.	No.
Aircraft Hazards	SDM's AIA.	No.
5.7 HYDROLOGY AND WATER QUALITY		
Flooding and Drainage Patterns	The watersheds downstream from the Airport.	No.
Flood Hazard Areas	Impacts are generally site-specific and not cumulative in nature.	No.
Water Quality	The watersheds downstream from the Airport.	No.
Groundwater	Groundwater aquifers underlying the Airport and nearby area.	No.
5.8 LAND USE		
Consistency with Environmental Policies of Adopted Land Use Plans	Community of Otay Mesa.	No.
Consistency with the Multiple Species Conservation Program Subarea Plan and Vernal Pool Habitat Conservation Plan	Land covered under the County of San Diego's MSCP SAP.	No.
Consistency with Adopted Airport Land Use Compatibility Plans	Community of Otay Mesa.	No.
Community Division	Community of Otay Mesa.	No.

Environmental Issue	Geographic Scope of the Cumulative Analysis	Cumulatively Considerable Impact?
5.9 NOISE		
Ambient Noise	Areas with noise-sensitive receptors surrounding the Airport.	No.
Noise – Land Use Compatibility	Community of Otay Mesa.	No.
Aircraft Noise	Community of Otay Mesa.	No.
San Diego Municipal Code – On-site Generated Noise	Properties adjacent to the Airport.	No.
Construction Noise	Areas with noise-sensitive receptors surrounding the Airport.	No.
Vibration	Historic-age structures at the Airport.	Not cumulatively considerable with implementation of MM VIB-1
5.10 PUBLIC SERVICES AND FACILITIES		
Public Facilities	Community of Otay Mesa.	No.
5.11 PUBLIC UTILITIES		
Water Supply	City of San Diego.	No.
Utilities	City of San Diego.	No.
Solid Waste Management	City of San Diego.	No.
5.12 VISUAL EFFECTS AND NEIGHBORHOOD CHARACTER		
Scenic Vistas or Views	Community of Otay Mesa.	No.
Neighborhood Character	Community of Otay Mesa.	No.
Landform Alteration	Community of Otay Mesa.	No.
Light and Glare	Community of Otay Mesa.	No.
Loss of Distinctive or Landmark Trees	Community of Otay Mesa.	No.

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1.0 INTRODUCTION

This Program Environmental Impact Report (PEIR) for the proposed Brown Field Municipal Airport (referred to as the "Airport" or by its Federal Aviation Administration [FAA] identifier "SDM") Master Plan and other associated discretionary actions (the "project") has been prepared in compliance with the California Environmental Quality Act (CEQA) Statute and Guidelines (Public Resources Code [PRC], Section 21000 et seq. and California Code of Regulations [CCR], Title 14, Section 15000, et seq.) and in accordance with the City of San Diego's (City) CEQA *Significance Determination Thresholds* (City 2022a).

The Airport Master Plan (AMP) documents the existing conditions of the airport; forecasts future operations; provides an assessment of the capacity of airport infrastructure and facility requirements (the airport's needs based on the forecast and compliance with FAA Airport Design Standards); evaluates options to meet those needs; develops a phasing plan for implementing improvements; and provides a funding plan for the identified improvements.

1.1 PEIR Purpose and Intended Uses

In accordance with CEQA Guidelines Section 15121, the purpose of this PEIR is to provide public agency decision-makers and members of the public with detailed information about the potential significant environmental effects of the project, possible ways to minimize its significant effects, and reasonable alternatives that would reduce or avoid identified significant effects. This PEIR is informational in nature and is intended for use by decision-makers, Responsible or Trustee Agencies as defined under CEQA, other interested agencies or jurisdictions, and the general public. The PEIR includes recommended mitigation measures which, when implemented, would lessen project impacts and provide the City's Airports Division, the Lead Agency as defined in Article 4 of the CEQA Guidelines (Sections 15050 and 15051), with ways to substantially lessen or avoid significant effects of the project on the environment, whenever feasible. Alternatives to the proposed AMP are presented to evaluate scenarios, policies, and/or regulations that would further reduce or avoid significant impacts associated with the project.

In accordance with CEQA Guidelines Section 15168, a PEIR may serve as the Environmental Impact Report (EIR) for subsequent activities or implementing actions, including future development of public and private projects, to the extent it contemplates and adequately analyzes the potential environmental impacts of those subsequent projects. If, in examining future actions for development within the proposed AMP area, the City finds no new effects could occur, or no new mitigation measures would be required other than those analyzed and/or required in the PEIR, the City can approve the activity as being within the scope covered by this PEIR, and no new environmental documentation would be required. If additional analysis is required, it can be streamlined by tiering from this PEIR pursuant to CEQA Guidelines Sections 15152, 15153, 15162, 15163, 15164, and 15168 (e.g., through preparation of a Mitigated Negative Declaration, Addendum, or EIR).

1.2 PEIR Legal Authority

1.2.1 Lead Agency

The City's Airports Division 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 that has the principal responsibility and authority for carrying out or approving a project. On behalf of the lead agency, the City's Planning Department conducted a preliminary review of the project and determined that a PEIR was required. The analysis and findings in this document reflect the independent, impartial conclusions of the City.

The FAA is a federal lead agency for the project's review process under the National Environmental Policy Act (NEPA), which is addressed under a separate environmental document.

1.2.2 Responsible and Trustee Agencies

State law requires that EIRs be reviewed by Responsible and Trustee Agencies. Responsible Agencies, as defined by CEQA Guidelines Section 15381, are public agencies that may have discretionary approval authority for a project. 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. Implementation of the proposed project may require subsequent actions and/or consultation from Responsible or Trustee Agencies. A brief description of some of the primary Responsible or Trustee Agencies that may have an interest in the project is provided below.

1.2.2.1 U.S. Army Corps of Engineers

The United States Army Corps of Engineers (USACE) has jurisdiction over development in or affecting the navigable waters of the United States, pursuant to two federal laws: the Rivers and Harbors Act of 1889 and the Clean Water Act (CWA), 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. (defined as direct fill or indirect effects of fill) are subject to Section 404 of the CWA. Impacts to waters of the U.S. greater than one-half acre require an individual permit. All permits issued by the USACE are subject to consultation and/or review by the United States Fish and Wildlife Service (USFWS) and the United States Environmental Protection Agency (USEPA). No permits from the USACE are required at this time; however, future development projects within the Airport may require review and/or USACE permits.

1.2.2.2 U.S. Fish and Wildlife Service

Acting under the Federal Endangered Species Act (FESA), the USFWS is responsible for ensuring that an action authorized, funded, or carried out by a federal agency (such as the USACE or FAA) is not likely to jeopardize the continued existence of listed species or modify their critical habitat. Accordingly, the USFWS and FAA will provide input to the USACE as part of the Section 404 and Section 7 processes. Section 7 of the FESA regulates actions that could impact endangered or threatened species. Section 7 generally describes a process of federal interagency consultation and

issuance of a biological opinion and incidental take statement when federal actions may adversely affect listed species. The role of USFWS is limited to areas covered by the City's Multiple Species Conservation Program (MSCP) Subarea Plan (SAP) and Vernal Pool Habitat Conservation Plan (VPHCP). For listed species covered by the SAP, the USFWS has granted take authorization to the City in accordance with the requirements of the MSCP Implementing Agreement (IA), executed between the City, the USFWS, and the California Department of Fish and Wildlife (CDFW) in 1997. For future projects that are consistent with the City's MSCP, the City has the 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 or VPHCP covered species list, the wildlife agencies retain permit authority. No permits from the USFWS are required at this time; however, development projects implemented under the proposed project may require review and/or USFWS permits in the future.

1.2.2.3 California Department of Fish and Wildlife

The 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 California Fish and Game (CFG) Code. The CDFW generally evaluates information gathered during the 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 or VPHCP occur on a project site, the CDFW would be responsible for the issuance of a Memorandum of Understanding to ensure the conservation, enhancement, protection, and restoration of state listed threatened or endangered species and their habitats. No permits from the CDFW are required at this time; however, development projects implemented under the proposed project may require review and/or permits in the future.

1.2.2.4 California Department of Transportation

The proposed AMP area is adjacent to California Department of Transportation (Caltrans) facilities, including State Route (SR) 163 and Interstate (I-) 805. No permits from Caltrans are required at this time; however, Caltrans' approval would be required for any encroachments or construction of facilities in a Caltrans right-of-way associated with future projects within the proposed AMP area.

1.2.2.5 San Diego Regional Water Quality Control Board

The San Diego Regional Water Quality Control Board (RWQCB) regulates water quality through the CWA Section 401 certification process and oversees the National Pollutant Discharge Elimination System (NPDES) Permit No. CAS0109266. The RWQCB is responsible for implementing permitting, compliance, and other activities to reduce pollutants in municipal, construction, and industrial storm water runoff, including overseeing the development and implementation of Water Quality Improvement Plans (WQIPs) as required by the Regional Municipal Separate Storm Sewer System (MS4) Permit for the San Diego region, which includes the City, as well as ensuring that all other MS4 permit requirements are met. No permits from the RWQCB are required at this time; however, future development projects within the proposed AMP area may require review and/or Section 401 certifications.

1.2.2.6 San Diego County Regional Airport Authority

The San Diego County Regional Airport Authority (SDCRAA) serves as San Diego County's Airport Land Use Commission (ALUC) and is responsible for land use planning as it relates to public safety surrounding the region's airports. As a Responsible Agency, the SDCRAA, acting as the ALUC, would review the proposed AMP and future development proposals within the proposed AMP area and make "consistency determinations" with the provisions and policies set forth in the Brown Field Municipal Airport Land Use Compatibility Plan (ALUCP) up until the time the ALUC determines the proposed AMP is consistent with the ALUCP. Future development projects within the proposed AMP area would be subject to the noise, safety, overflight, and airspace protection policies in the ALUCP for Brown Field, which also include the Code of Federal Regulations (CFR), Part 77 requirement to provide notification to the FAA as addressed in the ALUCP.

1.3 PEIR Type, Scope and Content, and Format

1.3.1 Type of EIR

This EIR has been prepared as a PEIR, as defined in Section 15168 of the CEQA Guidelines. In accordance with CEQA, this PEIR examines the environmental impacts of the proposed AMP, which comprises a series of actions. The combined actions can be characterized as one large project for the purpose of environmental review in this PEIR and are herein collectively referred to as the "project." The PEIR focuses on the physical changes in the environment that would result from the adoption and implementation of the project, described in Chapter 3.0, *Project Description*, including anticipated general impacts that could result during future construction and operation.

1.3.2 PEIR Scope and Content

The scope of analysis for this PEIR was determined by the City as a result of an initial project review, as well as consideration of comments received in response to the Notice of Preparation (NOP) circulated on February 7, 2019, and a scoping meeting held on February 27, 2019, at the Otay Mesa-Nestor Branch Library, located at 3003 Coronado Avenue, San Diego, CA 92154. The NOP for analysis of the project, related letters received, and comments made during the scoping meeting are included as Appendix A of this PEIR. Through these scoping activities, the project was determined to have the potential to result in significant environmental impacts to the following subject areas:

- Air Quality
- Biological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Health, Public Safety, and Hazardous Materials
- Historical, Archaeological, and Tribal Cultural Resources
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services and Facilities
- Public Utilities
- Visual Effects and Neighborhood Character

The intent of this PEIR is to determine whether the implementation of the project would have a significant effect on the environment through analysis of the issues identified during the scoping

process. The environmental analysis for the project is presented in the Environmental Analysis chapter in this PEIR (Sections 5.1 through 5.12). Each environmental issue area presented in this chapter includes the presentation of threshold(s) of significance for the particular issue area under evaluation based on the CEQA Guidelines and the City's CEQA Significance Determination Thresholds (City 2022a); identification of an issue statement; an assessment of impacts associated with implementation of the proposed project; a summary of the significance of project impacts; and recommendations for mitigation measures and mitigation monitoring and reporting, as appropriate.

Pursuant to CEQA Guidelines Section 15126, discretionary actions associated with the proposed AMP are considered at the program level in this PEIR when evaluating potential impacts on the environment, including the construction of future development and supporting facilities and infrastructure. Impacts are identified as direct or indirect, and short-term or long-term, and are assessed on a plan-to-ground basis. The plan-to-ground analysis addresses the changes or impacts that would result from the implementation of the project compared to existing ground conditions.

The PEIR includes mandatory contents of EIRs as required pursuant to CEQA Guidelines Sections 15120 through 15132. The cumulative impacts analysis for each specific environmental issue area is presented in Chapter 6.0, *Cumulative Impacts*. Chapter 7.0, *Other Mandatory Discussion Areas*, presents the following: (1) a brief discussion of potential growth-inducing impacts; (2) environmental effects that were evaluated as part of the initial scoping and review process for the project and were found not to be potentially significant; and (3) unavoidable significant environmental impacts and significant irreversible environmental changes.

Chapter 8.0, *Alternatives*, of this PEIR includes a discussion of Alternatives that could avoid or reduce potentially significant environmental effects associated with the implementation of the project.

For the purposes of the analysis in this PEIR, the baseline year is 2018 (unless otherwise noted), and the horizon year representing future buildout conditions under the proposed AMP is 2037. In cases where current data is not available, the most recent known data is used to depict existing conditions. The horizon year of 2037 represents the target year of the proposed AMP when projects and programs are anticipated to be fully implemented. However, full implementation of the proposed AMP may take more or less than 20 years.

1.3.3 PEIR Format

A brief overview of the various chapters of this PEIR is provided below:

- **Executive Summary** (CEQA Guidelines Section 15123). Provides a summary of the PEIR, a brief description of the project, identification of areas of controversy, issues to be resolved by the decision-makers, and inclusion of a summary table identifying significant impacts, proposed mitigation measures, and significance of impact after mitigation. A summary of the project alternatives and a comparison of the potential impacts of the alternatives with those of the project is also provided.

- **Chapter 1.0, 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 2.0, Environmental Setting** (CEQA Guidelines Section 15125). Provides a description of the project's regional context, location, existing airside and landside facilities, and historical aircraft operations. The Environmental Setting chapter provides background information relevant to each environmental issue area further addressed in Sections 5.1 through 5.12. Within the proposed project impact analysis chapter, the applicable environmental setting discussion contained in Chapter 2.0 is referenced to avoid repetition.

- **Chapter 3.0, Project Description** (CEQA Guidelines Section 15124). Provides a detailed discussion of the proposed AMP, including the local planning context, facility needs assessment summary, AMP components, phasing, the AMP's relationship to local land use plans, and other agency approvals.

- **Chapter 4.0, Regulatory Framework**. Provides a summary of the applicable federal, state, and local environmental laws and requirements relevant to each issue area. Within the proposed project impact analysis chapter, the applicable regulatory framework discussion contained in Chapter 4.0 is referenced to avoid repetition.

- **Chapter 5.0, Environmental Analysis** (CEQA Guidelines Section 15126). Provides a detailed evaluation of potential environmental impacts associated with the improvements proposed within the AMP for environmental issues determined through the initial review and public scoping process to be potentially significant. The analysis of each issue begins with a reference to the environmental setting and regulatory framework provided in Chapters 2.0 and 4.0, respectively, and a statement of the specific threshold(s) used to determine the significance of impacts, followed by an evaluation of potential impacts. If significant impacts are identified, feasible mitigation measures to avoid or reduce any significant impacts are identified. Where mitigation measures are required, a statement regarding the significance of the impact after mitigation is provided.

- **Chapter 6.0, Cumulative Impacts** (CEQA Guidelines Section 15130). Provides a detailed discussion of the proposed project's incremental effects combined with other planned projects. According to CEQA Guidelines Section 15065, "cumulatively considerable" means the incremental effects of an individual project are considerable when viewed in connection with the effect of past projects, the effect of other current projects, and the effects of probable future projects as defined in CEQA Guidelines Section 15130.

- **Chapter 7.0, Other Mandatory Discussion Areas**.

    - **Growth Inducement** (CEQA Guidelines Section 15126.2(d)). Evaluates the potential influence the project may have on economic or population growth within the proposed AMP area, as well as the region, either directly or indirectly.

    - **Effects Found Not to Be Significant**. Identifies the issues determined in the scoping and preliminary environmental review process to be not significant for the project, and briefly summarizes the basis for these determinations. For the proposed AMP, it was determined that environmental issues associated with agriculture and forestry resources, energy, mineral resources, paleontological resources, population and housing, transportation, and wildfire would not be significant, and, therefore, are summarized in Chapter 7.0.

- **Unavoidable Significant Impacts/Significant Irreversible Environmental Changes** (CEQA Guidelines Sections 15126(b) and 15126(c)) provides a summary of significant unavoidable impacts of the proposed AMP as detailed in Chapter 5.0. This chapter also describes the potentially significant irreversible changes that may be expected and addresses the use of nonrenewable resources and energy use anticipated during project implementation.

- **Chapter 8.0, Alternatives** (CEQA Guidelines Section 15126.6). Provides a description of alternatives to the proposed AMP, including the No Project (Adopted Master Plan) and the Reduced Project Alternative.

- **Chapter 9.0, References Cited**. Lists the reference materials cited in the PEIR.

- **Chapter 10.0, Individuals and Agencies Consulted/List of Preparers** (CEQA Guidelines Section 15129). Identifies the individuals and agencies contacted during the preparation of the PEIR.

Technical reports, used as a basis for much of the environmental analysis in the PEIR, have been summarized in the PEIR, and are included as appendices to this PEIR. The technical reports and any updates or additional materials prepared for the project and their location in the PEIR are listed in the table of contents. Availability of the Draft PEIR and the technical appendices is discussed in Section 1.4.1, *Draft PEIR*.

1.3.4 Incorporation by Reference

As permitted by CEQA Guidelines Section 15150, this PEIR has referenced several technical studies and reports. Information from these documents has been briefly summarized in this PEIR, and their relationship to this PEIR is described. These documents are included in Chapter 9.0, *References Cited*, are hereby incorporated by reference, and are available for review at the City's Planning Department, located at 202 C Street, San Diego, CA, 92101. Included within the list of materials incorporated by reference into this PEIR are the following:

- City of San Diego General Plan (City 2008a)
- City of San Diego PEIR for the General Plan (Final PEIR) (2007)
- City of San Diego Municipal Code (SDMC; City 2008b)
- City of San Diego Climate Action Plan (CAP; City 2022a)
- City of San Diego MSCP SAP (City 1997)
- City of San Diego VPHCP (City 2019)
- City of San Diego Metropolitan Airpark Project (MAP) Final EIR (City 2013)

1.4 PEIR Process

The City, as the CEQA lead agency, is responsible for the preparation and review of this PEIR. 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, and the second stage is the Final PEIR.

1.4.1 Draft PEIR

In accordance with SDMC Section 128.0306 and CEQA Guidelines Section 15105, the Draft PEIR is distributed for review to the public and interested and affected agencies for a review period of 45 days. The purpose of the review period is to allow the public an opportunity to provide 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 and mitigated" (CEQA Guidelines Section 15204). SDMC Section 128.0307 allows the Planning Director to approve requests for additional public review time from the affected officially recognized community planning group, in this case, the Otay Mesa Community Planning Group. Approval of additional review time shall not exceed 14 calendar days.

The Draft PEIR and related technical studies are available for review during the public review period at the offices of the Planning Department, located at 202 C St San Diego CA, 92101, and on the City's CEQA webpage:

https://www.sandiego.gov/ceqa/draft

The Brown Field Municipal Airport AMP website is:

http://www.sdairportplans.com/the-airports/

1.4.2 Final PEIR

Following the end of the public review period, the City, as the CEQA lead agency, will provide written responses to comments received on the Draft PEIR per CEQA Guidelines Section 15088. Comments and responses will be considered in the review of the PEIR. 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 PEIR as significant and unavoidable, will be prepared and compiled as part of the PEIR finalization process. The culmination of this process is a public hearing where the City Council will determine whether to certify the Final PEIR, which includes the MMRP, Findings, and Statement of Overriding Considerations, as being complete and in accordance with CEQA. The Final PEIR will be available for public review at least 14 days before the City Council public hearing to provide commenters the opportunity to review the written responses to their comment letters.

2.0 ENVIRONMENTAL SETTING

2.1 Regional Location and Airport Boundaries

Brown Field Municipal Airport (also referred to as "Airport" or by its FAA identifier "SDM") encompasses approximately 889 acres, located approximately 1.5 miles north of the Mexican border (two miles from Tijuana International Airport), five miles northeast of Tijuana, Mexico, 14 miles southeast of San Diego, California, and seven miles southeast of Chula Vista, California. It is the closest general aviation airport to the Mexican border and is accessible via the Otay Mesa Freeway (SR 905) from the south and the South Bay Expressway (SR 125) from the east.

The Airport is located within the Otay Mesa Community Plan (OMCP) area in the southern portion of the City (Figure 2-1, *Regional Location*). The Airport is bound by Otay Mesa Road to the south, Heritage Road to the west, La Media Road to the east, and open space to the north (Figure 2-2, *Airport Master Plan Area*). I-805 runs in a north-south direction to the west of the Airport, the South Bay Expressway (SR 125) runs in a north-south direction to the east of the Airport, and the Otay Mesa Freeway (SR 905) runs in an east-west direction to the south of the Airport (see Figures 2-1 and 2-2).

2.2 Airport Facilities Overview

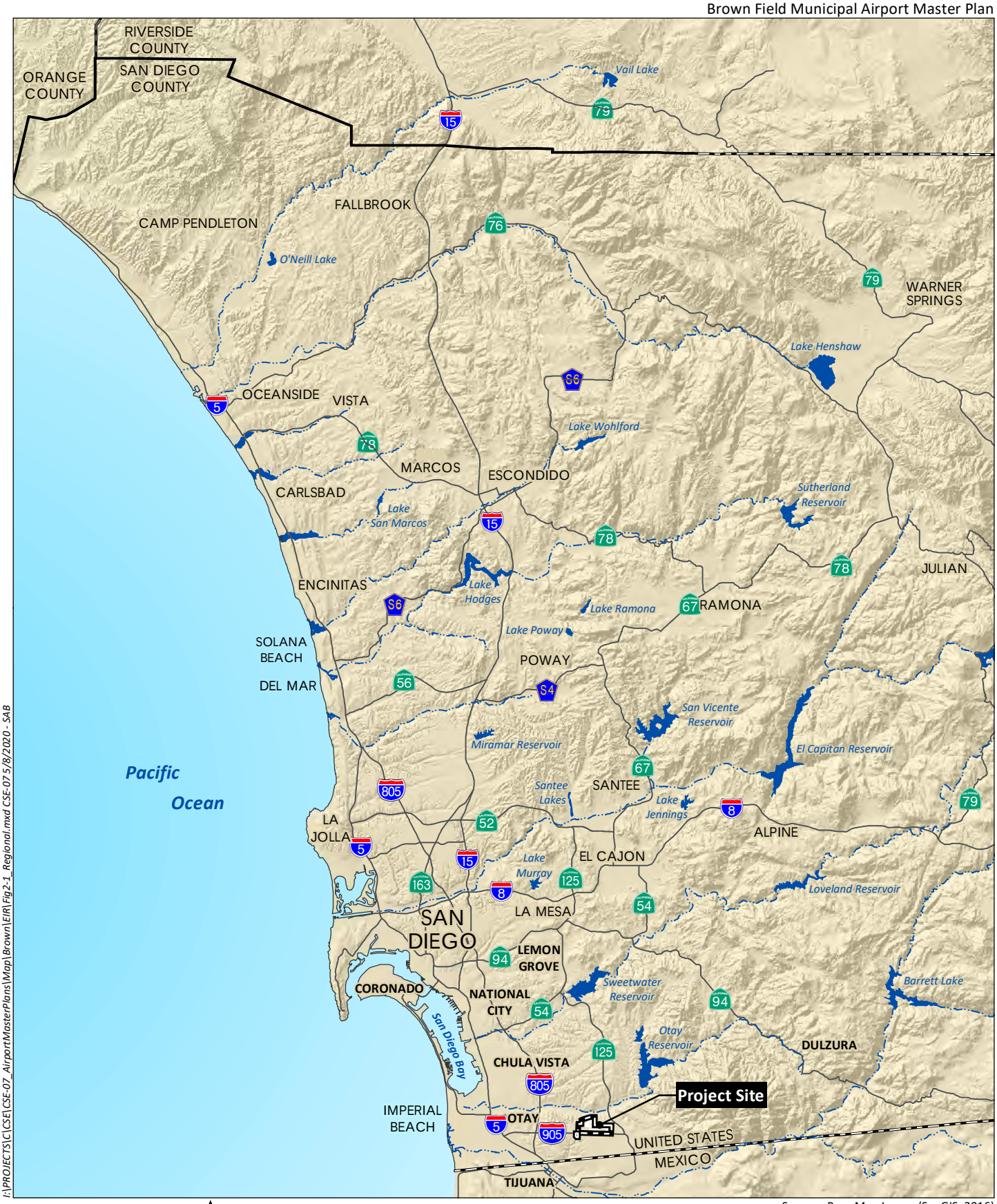
SDM opened in 1918 as a U.S. Army training school to relieve congestion at North Island and transferred ownership several times among various branches of the military until 1962 when it was decommissioned by the Navy and transferred to the ownership of the City. SDM is operated as a general aviation airport that encompasses all aviation except air carrier and military. The types of general aviation aircraft that operate at SDM include private, corporate, charter, air ambulance, law enforcement, fire rescue, flight training, cargo, skydiving, banner towing, and airships. SDM has grown since its inception to encompass two runways, four taxiways, and several run up areas among other airside and landside facilities as detailed in Figure 2-3, *SDM Existing Facilities*, and as discussed in further detail below.

2.2.1 Airside Facilities

Airside components are those that directly support aircraft passenger-related operations including runways, taxiways, navigational aids (NAVAIDS), and apron areas. The airside components at the Airport consist of two parallel runways (Runways 8L/26R and 8R/26L) and four taxiways, including a full parallel taxiway. In addition to the runways and taxiways, there are several aircraft run-up areas and various NAVAIDS. The airside also includes aircraft parking aprons, and the Airport Traffic Control Tower (ATCT). See Figure 2-4, *Existing Airside Facilities*.

2.2.1.1 Runways

The Airport consists of two paved runways, one 7,972-foot-long runway, and a parallel, 3,185-foot-long runway. The details and characteristics of each runway are described in Table 2-1, *Runway System Characteristics*.



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0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 2-1

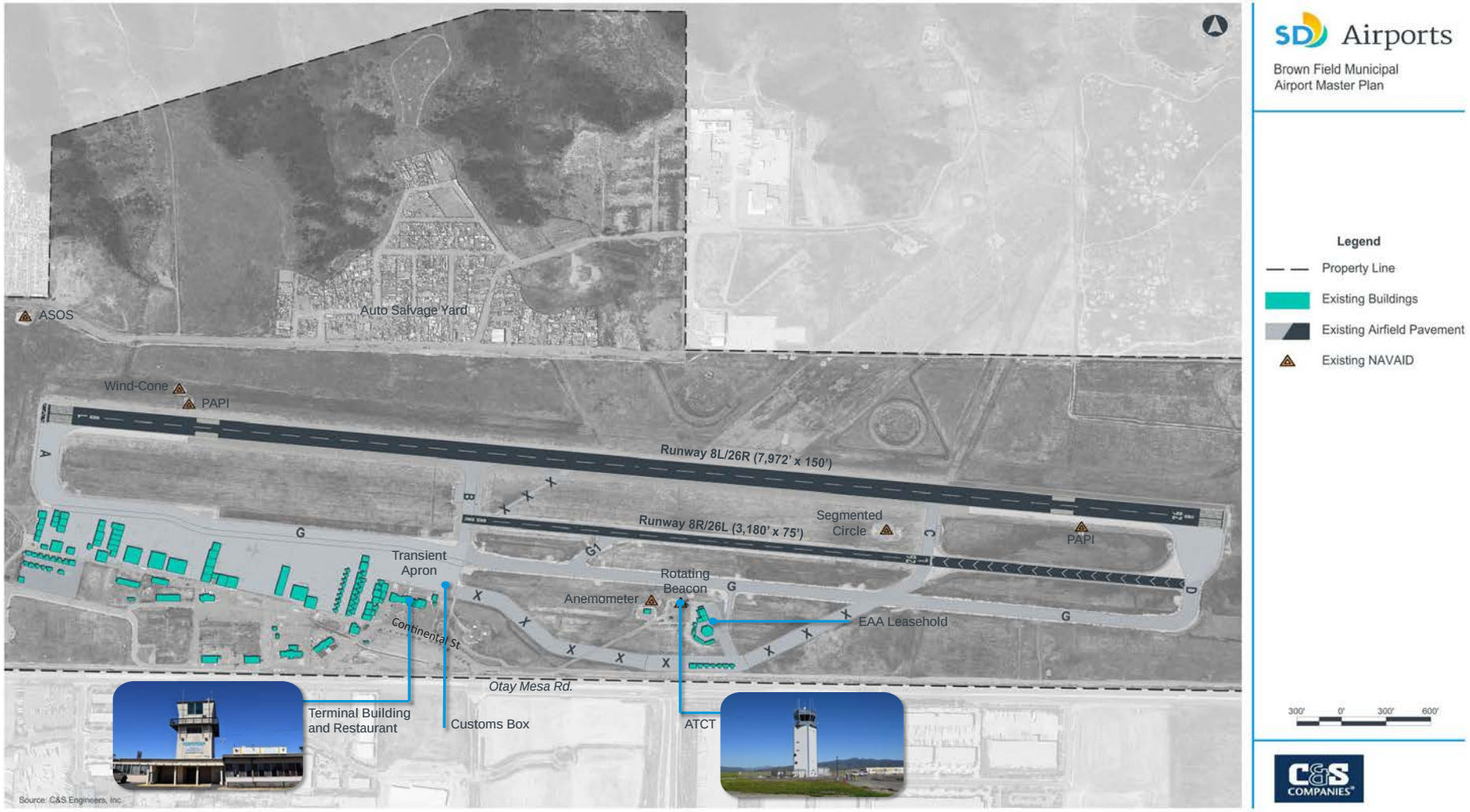


Source: Aerial (SanGIS 2023)

HELIX Environmental Planning

Airport Master Plan Area

Figure 2-2



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Source: C&S Companies 2018

HELIX Environmental Planning

SDM Existing Facilities

Figure 2-3



Taxiway G6 Facing North



Air Traffic Control Tower

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Table 2-1
RUNWAY SYSTEM CHARACTERISTICS

Characteristics	Runway 8L/26R	Runway 8R/26L
Use	Primary	Secondary
Length x Width (feet)	7,972 x 150	3,185 x 75
Pavement Condition	Good	Fair

Source: FAA Airport Master Record Form 5010 (AFD EFF 03/02/2017) and C&S Engineers, Inc. 2019.

The primary runway (runway 8L/26R) provides the longest landing distance available at any public-use airport in San Diego County. A portion of this runway was recently improved as part of the Runway 8L/26R Rehabilitation Project. A Pavement Maintenance Management Plan (PMMP) was completed for SDM in February 2018 that provided an analysis of the current pavement condition. As indicated in Table 2-1, according to the PMMP report, both runways are in overall fair to good condition; however, as discussed later in Section 2.3 of this PEIR, a portion of the pavement on Runway 8L/26R is in poor condition.

2.2.1.2 Taxiways

Taxiway systems should provide safe and efficient routes for aircraft movement to and from airport runways and apron areas (the areas where aircraft are parked, loaded/unloaded, re-fueled, or boarded). The type and location of taxiways in relation to a runway system have an impact on Airport capacity.

Runways 8L/26R and 8R/26L share a full-length, parallel taxiway, Taxiway G. Taxiways G1, A, B, C, and D, perpendicular to Taxiway G, connect the hangars and support facilities to the Airport. The current taxiway designations are non-standard with only one parallel taxiway serving both runways, the centerline separation has to accommodate all aircraft at the SDM. The taxiways are equipped with Medium Intensity Taxiway Lighting (MITL).

2.2.1.3 Safety Areas and Object Free Areas

Runways and taxiways are surrounded by imaginary, rectangular areas known as runway safety areas (RSAs) and runway object free areas (ROFA). The purpose of the RSA is to protect aircraft in the event of an under-shoot, over-shoot, or excursion from a runway during landing or take-off operations. The RSA has specific grading requirements to slope away from the runway at 1.5 to 5.0 percent. Meeting RSA requirements is one of the FAA's highest priorities in maintaining safety at the nation's airports. Table 2-2, *Runway Safety Area Requirements*, includes the RSA requirements for the Airport.

The function of the ROFA, also centered on the runway, is to enhance the safety of aircraft operating on the runway. It is not permissible to park an airplane within the ROFA. The ROFA does not have specific slope requirements, but the terrain within the ROFA must be relatively smooth and graded to be at or below the edge of the RSA. Overall, the purpose of these areas is to minimize the probability of serious damage to aircraft accidentally entering the area as well as to provide greater accessibility for firefighting and rescue equipment during such incidents. Table 2-3, *Runway Object Free Area Requirements*, lists the ROFA requirements for the Airport.

Table 2-2
RUNWAY SAFETY AREA REQUIREMENTS

Runway	Runway Safety Area Width (feet)	Length Beyond Runway End (feet)
8L/26R	500	1,000
8R/26L	120	240

Source: C&S Engineers, Inc. 2019

Table 2-3
RUNWAY OBJECT FREE AREA REQUIREMENTS

Runway	Runway Object Free Area Width (feet)	Length Beyond Runway End (feet)
8L-26R	800	1,000
8R-26L	250	240

Source: C&S Engineers, Inc. 2019

2.2.1.4 Runway Protection Zones

As defined by FAA AC 150/5300-13B, the function of the Runway Protection Zone (RPZ) is to enhance the protection of people and property on the ground. This is best achieved by airport sponsor acquisition of property located within the RPZ and clearing it of incompatible land uses and obstructions. The RPZ is a trapezoidal shape centered on and extending out from the runway centerline. The type of aircraft that the runway accommodates as well as the approach visibility minimums determines the dimensions of an RPZ. Each runway has a separate approach and departure RPZ whose dimensions are identical unless visibility minimums are lower than one mile (which applies at SDM).

2.2.1.5 Lighting

Runway End Identifier Lights

Runway End Identifier Lights (REILs) are installed at an airport to provide rapid and positive identification of the approach end of a particular runway. The system consists of a pair of synchronized, flashing lights located laterally on each side of the runway threshold. Newly installed REILs exist on both the Runway 8L and 26R ends.

Precision Approach Path Indicators

A Precision Approach Path Indicator (PAPI) provides visual approach slope guidance during aircraft landing operations. The PAPI system consists of four light box units, located at the left of the runway edge and perpendicular to the runway centerline. PAPIs are installed on both Runways 8L and 26R ends.

Edge Lighting

Runway edge lights are used to outline the edges of runways during periods of darkness or reduced visibility. These light systems are classified according to the intensity or brightness they produce.

Runway 8L/26R is equipped with High Intensity Runway Lighting (HIRL) while Runway 8R/26L is equipped with Medium Intensity Runway Lighting (MIRL). All taxiways are equipped with MITL.

2.2.1.6 Navigational Aids

Wind Cone

A wind cone is a conical textile tube that provides pilots with a visual indication of wind direction and velocity. The Airport has the following wind cones, both of which are in good condition:

- The primary wind cone is co-located with the segmented circle between Runways 8L/26R and 8R/26L.
- A secondary wind cone is located north of the approach end of Runway 8L.

Segmented Circle

A segmented circle is a visual aid designed to provide information about the traffic pattern to aircraft overhead. It is often co-located with a wind cone, as is the case at SDM, where it is located between Runways 8L/26R and 8R/26L. The segmented circle at SDM needs repair and is also located within the ROFA and will need to be relocated.

Airport Beacon

A rotating beacon assists pilots in identifying the airport at night. As a civilian airport, the beacon alternates between white and green flashing lights. The SDM beacon is operational and is located on the ATCT.

Electronic Navigational Aids

Electronic NAVAIDS are utilized during periods when cloud ceilings are low and visibility is poor, and pilots must engage in instrument approach procedures (IAPS). NAVAIDS are utilized through instrumentation in the aircraft as a part of on-route navigation and IAP. There are two types of NAVAIDS available to pilots at SDM, listed below.

Very High Frequency Omni-Directional Range (VOR)

A VOR is an electronic, ground-based system that provides lateral guidance to an aircraft approaching and landing on a runway during periods of low ceilings and/or reduced visibility.

Area Navigation (RNAV) Global Positioning Systems (GPS) RWY 8L

RNAV, the precursor to GPS, uses a network of satellites and land stations to create reference points that allow users with the proper receivers to determine their position in the sky. As technology advances, GPS navigation now provides highly accurate navigational data based on satellites alone. This is beneficial to airports because it allows them to set up an instrument approach without installing any expensive instrumentation on the ground. The Airport currently has one published straight-in RNAV GPS approach to Runway 8L.

2.2.1.7 Airport Signage and Markings

Airport signage and markings are used for navigational and safety purposes and include directional and information signage.

2.2.1.8 Airspace and Air Traffic Control Tower

The FAA ATCT is located on the south-central side of the Airport and provides Air Traffic Control (ATC) services at the Airport. The ATCT is FAA-owned but contracted out for operation. The ATCT is operational from 8:00 a.m. to 8:00 p.m., 7 days a week.

2.2.1.9 Additional Equipment

Additional equipment includes an Automated Surface Observing System, which is a weather-sensing system, and an Airport electrical vault, located on the apron, north of the administration building.

2.2.2 Landside Facilities

The landside portions of an airport are those areas that do not play a direct role in aircraft operations. At SDM, this includes the terminal building (including administrative offices and the restaurant), hangars, tie-downs, parking lots, entrance roads, and various facilities owned and/or operated by tenants. Additional landside support facilities include those relating to aircraft maintenance, refueling, and flight instruction. While the City operates and maintains the terminal building, and onsite circulation network, many of the landside facilities include functions operated by private tenants. Table 2-4, *Support Facility Tenants and Services Provided*, provides a list of the tenants that lease operational space at the SDM as well as the landside services they provide. See Figure 2-5, *Existing Landside Facilities*.

Table 2-4
SUPPORT FACILITY TENANTS AND SERVICES PROVIDED

Tenant Name	Service Provided
First Flight Corp (Fixed Base Operator [FBO])	FBO, fuel, aircraft maintenance, tie-down, hangar, flight training, aircraft rental
Air Center San Diego (FBO)	FBO, fuel, aircraft maintenance, tie-down, hangar, car rental, pilot lounge, crew services, cargo handling
Baja Airventures	Mexico eco-adventures, whale watching, kayaking, surfing
Experimental Aircraft Association Chapter 14	Experimental aircraft, weekly fly-in, Young Eagles Program (free flights for children), aviation safety education and library
Pacific Coast Skydive	Skydiving
The Landing Strip	Restaurant
U.S. Customs	Customs and other federal inspection services
City of San Diego Fire Station 43	Fire protection to City of San Diego

Source: City of San Diego, C&S, 2019.



Terminal Building with Original Air Traffic Control Tower



Aircraft Tie-downs and Hangars

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2.2.2.1 Terminal Building

The terminal building is located on the southwestern portion of the Airport on Continental Street at 1424 Continental Street. The building houses the Airport management offices, Air Center San Diego offices, U.S. Customs office, and a restaurant (The Landing Strip). The original ATCT is in the middle of the building, serving as a historical landmark and focal point of the structure. The original ATCT has been decommissioned and is now used for storage; it is considered historically significant. The terminal building is approximately 12,600 square feet (SF), not including the original ATCT.

The Landing Strip restaurant, in the eastern part of the terminal building, includes a café and a bar/restaurant. It offers an opportunity for pilots to dine without leaving the Airport, and it allows anyone from the surrounding community to observe the Airport in operation.

2.2.2.2 Aircraft Hangars and Tie-Down Facilities

As shown in Table 2-5, *Existing SDM Aircraft Hangars and Parking Areas*, SDM has several different leaseholders that offer both hangars and tie-down storage for based and transient aircraft use. The 21-acre apron contains 130 individual hangar facilities, approximately 100 tie-downs, four nose docks, and three helicopter parking spaces.

Table 2-5
EXISTING SDM AIRCRAFT HANGARS AND PARKING AREAS

Lease Title / Area	Based / Transient	Existing					
		Tie-downs [a]	T-Hangars	Box Hangars	Large Box Hangars (more than one aircraft)	Nose Docks	Total Existing
First Flight Corp	Both	32	4	10	0	1	47
Air Center San Diego	Both	53	52	28	3	2	138
Experimental Aircraft Association Chapter 14	Based	8	8	10	1		27
Tactical Air Operations	Based	0	0	0	6		6
U.S. Customs	Transient	-	-	-	-		3[b]
City Operated Conventional Hangars and Ramp	-	-	-	1	1	1	3
Total		**93**	**64**	**49**	**11**	**4**	**224**

Source: Google Earth, City of San Diego and C&S Engineers, Inc.
[a] Estimate based on Google Earth imagery, accurate count to be determined with updated aerial imagery.
[b] Includes parking spaces for three aircraft in the customs box.

2.2.2.3 Circulation, Access, and Parking

Vehicle Access

SDM is bound by Otay Mesa Road to the south, Heritage Road to the west, La Media Road to the east, and open space to the north. Currently, primary access to the Airport is via Otay Mesa Road to

Continental Street, which provides direct access to the terminal building, the parking lots to the north and south of the terminal building, and the hangars and accessory structures west of the terminal building. Local and regional vehicle access routes to SDM are identified in Section 2.1, Regional Location and Airport Boundaries.

Security

Perimeter fencing surrounds the Airport and controlled-access gates provide security.

Multi-modal Access

There are crosswalks along Otay Mesa Road and a bus stop at Otay Mesa Road Gailes Boulevard with bus service provided by San Diego Metropolitan Transit Service, Route 905.

On-Airport Circulation

Within the boundaries of the Airport, Curran Street and Continental Street provide primary circulation between the on-site facilities. Additional access roads on the Airport property include Boeing Street, Sikorsky Street, Fairchild Street, Lockheed Street, and Lycoming Street. An unpaved maintenance road runs along the inside of the perimeter fence.

Parking

SDM has several free daytime public parking areas available. There are two main public lots, one directly south, and one directly north of the administration building. Additional parking areas within the perimeter fence are available to tenants, their visitors, and employees.

2.2.2.4 Support Facilities

Support facilities include those relating to aircraft maintenance, refueling, flight instruction, charter, and aircraft sales. Most of the services, including all fuel sales, are provided by two Fixed Base Operators (FBOs) at SDM, which are First Flight Corp and Air Center San Diego. In addition, San Diego Fire-Rescue Department (SDFD) Station 43 is located on the southeastern corner of SDM. Although not a designated aircraft rescue and firefighting station for SDM, if available, the station will respond to calls at SDM. The station has one large hangar and administration building, as well as a helicopter landing area.

2.3 Airport Deficiencies

2.3.1 Airside Deficiencies

Within the airside facilities of SDM, there are existing deficiencies in relation to efficiency and meeting FAA design and safety requirements. Additionally, an airport pavement study concluded that there are several areas of the Airport that have poor to fair pavement conditions. A more detailed discussion of airside deficiencies is contained within Chapter 3.0, *Project Description*, of this PEIR.

2.3.2 Landside Deficiencies

Analysis conducted as part of the AMP determined that there is an existing deficiency in the availability of certain landside facilities. Primarily, under current operating conditions, while the terminal building physically has enough space to accommodate operations, the structure itself is structurally deteriorating and building materials contain hazardous materials. Additionally, the existing floorplan is restricting interior space for the individual tenants. Other landside deficiencies are related to the configuration of Airport apron parking, the maintenance building, and fencing. A more detailed discussion of landside deficiencies is contained within Chapter 3.0, *Project Description*, of this PEIR.

2.4 Historical Aircraft Operations

Historical operations data for SDM indicates that aircraft operations and Airport activity fluctuate with the economy. In the beginning of 2009, when the most recent economic recession peaked, there was a decrease in aviation activity; since this time, although aircraft activity has experienced a slowdown in the negative growth rate, SDM is still experiencing a decline in total aircraft operations.

Aviation activity can be expressed in terms of airport operations (the total number of landings and take-offs), which are classified as local and itinerant. Local operations are those operations performed by aircraft that remain in the local traffic pattern, execute simulated instrument approaches or low passes at the airport, and operations to or from the airport and a designated practice area in a 20-mile radius of the ATCT. Itinerant operations are those performed by aircraft, with either instrument flight rules, visual flight rules, or special visual flight rules that land at an airport, arrive from outside the airport area, or depart an airport and leave the airport area. Table 2-6, *SDM Historical and Existing Aircraft Operations Data*, includes flight volumes for itinerant and local sources for the years from 2006-2016.

Table 2-6
SDM HISTORICAL AND EXISTING AIRCRAFT OPERATIONS DATA

	Itinerant				Local			
Year	Air Taxi	GA	Military	Sub-Total	GA	Military	Sub-Total	Total Operations
2006	3,360	33,181	3,901	40,487	91,203	3,795	94,998	135,485
2007	3,610	37,690	4,260	45,565	96,440	3,656	100,096	145,661
2008	2,969	36,558	2,423	41,965	65,146	2,947	68,093	110,058
2009	2,063	35,230	825	38,138	50,559	2,898	53,457	91,595
2010	2,249	32,773	1,114	36,136	49,875	3,719	53,594	89,730
2011	1,858	32,760	1,920	36,539	51,874	12,544	64,418	100,957
2012	1,867	27,445	2,648	31,962	50,169	8,640	58,809	90,771
2013	1,559	27,835	3,009	32,416	49,170	8,005	57,175	89,591
2014	1,565	28,468	2,902	32,935	52,323	4,881	57,204	90,139
2015	1,836	31,781	2,198	35,927	53,885	2,864	56,749	92,676
2016	1,832	32,167	1,809	35,839	47,701	2,240	49,941	85,780
AAGR (5-year trend)				-0.13%			-4.58%	-3.08%
AAGR (10-year trend)				-0.93%			-5.19%	-3.86%

Source: Table 2.1 from SDM AMP (C&S 2019). Original source; FAA Air Traffic Activity Data System (ATADS), March 2017
AAGR: Average Annual Growth Rate, used when data is available for consecutive years
Note: Total operations for Air Carrier service over the 10-year period range from 0 to 112 per year and are included in the Total Airport Operations.

Itinerant and local general aviation make up the majority of aircraft activity at 93.1 percent (79,868) of the total 2016 traffic (85,780), while military and air taxi operations make up a combined 6.9 percent (5,881).

While Table 2-6 identifies the classes of historical and existing aircraft operations, Table 2-7, *Existing Operations at SDM – Year 2016*, identifies the types of planes that comprise all (itinerant and local) aircraft operations for the most recent year available, 2016.

Table 2-7
EXISTING OPERATIONS AT SDM – YEAR 2016

Aircraft Type	Aircraft Count	Fleet Percentage
Single Engine	66,148	77%
Multi Engine	8,316	10%
Turboprop	1,233	1%
Jet	5,054	6%
Military	4,049	5%
Rotorcraft	980	1%
Total	**85,780**	100%

Source: TFMSC 2016, ATADS 2016 and C&S Engineers, Inc.

It is also important to understand the number and type of based aircraft, since based aircraft, especially those owned by flight schools, can comprise a large percentage of overall aircraft operations. The most recent data from June 2017 indicates that there is a total of 223 based aircraft housed at SDM, with approximately 79 percent of those aircraft being single-engine piston aircraft (see Table 2-8, *Existing Based Aircraft at SDM*).

Table 2-8
EXISTING BASED AIRCRAFT AT SDM

Aircraft Type	Aircraft Count	Fleet Percentage
Single Engine	176	79%
Multi Engine	25	11%
Jet	13	6%
Helicopter	9	4%
Total	**223**	**100%**

Source: National Based Aircraft Inventory Program, State Counts 6/6/2017

2.5 Existing Physical Characteristics

2.5.1 Air Quality

The Airport is located within the San Diego Air Basin (SDAB) of the San Diego County Air Pollution Control District (SDAPCD). Existing air quality conditions and local climate are described in this section. See additional information below, Section 5.1 of the PEIR, and Appendix B, Air Quality Technical Report.

2.5.1.1.1. Climate

The climate in southern California, including the AMP area, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. Areas within 30 miles of the coast experience moderate temperatures and comfortable humidity. Precipitation is limited to a few storms during the winter season. The climate of the area is characterized by hot, dry summers, and mild, wet winters.

The predominant wind direction in the vicinity of the Airport is from the west and the average wind speed is approximately six miles per hour (Iowa Environmental Mesonet [IEM] 2019). The annual average maximum temperature at the Airport is approximately 68 degrees Fahrenheit (°F), and the average annual minimum temperature is approximately 53°F. Total precipitation in the vicinity of the AMP area averages approximately 10 inches annually. Precipitation occurs mostly during the winter and is relatively infrequent during the summer (Western Regional Climate Center 2019).

Due to its climate, the SDAB experiences frequent temperature inversions (temperature increases as altitude increases, which is the opposite of general patterns). Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and nitrous dioxide react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and nitrogen dioxide (NO_2) emissions. High NO_2 levels usually occur during autumn or winter, on days with summer-like conditions.

2.5.1.2 Air Pollutants of Concern

Federal and state laws regulate air pollutants emitted into the ambient air by stationary and mobile sources. These regulated air pollutants are known as “criteria air pollutants,” and are categorized by primary and secondary standards. Primary standards are a set of limits based on human health effects. Secondary standards are another set of limits intended to prevent environmental and property damage. Criteria air pollutants are defined by state and federal law as a risk to the health and welfare of the general public. In general, criteria air pollutants include the following compounds:

- Ozone (O_3)
- Reactive organic gases (ROGs) or volatile organic compounds (VOCs)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Particulate matter (PM), which is further subdivided:
    - Respirable PM, 10 microns or less in diameter (PM_{10})
    - Fine PM, 2.5 microns or less in diameter ($PM_{2.5}$)

- Sulfur dioxide (SO_2)
- Lead (Pb)

Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO_2, PM_{10}, $PM_{2.5}$, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants; e.g., ozone, NO_2, PM_{10}, and $PM_{2.5}$). PM_{10} and $PM_{2.5}$ can be both primary and secondary pollutants. The principal precursor pollutants of concern are ROGs (also known as VOCs)[1] and nitrogen oxides (NO_X).

The descriptions of sources and general health effects for each of the criteria air pollutants are shown in Table 2-9, *Common Sources and Human Health Effects of Criteria Air Pollutants*. Specific adverse health effects on individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and characteristics of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_X) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO_2 are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from on-road vehicles (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel.

Table 2-9
COMMON SOURCES AND HUMAN HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS

	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to climate change and nutrient overloading, which deteriorates water quality. Causes brown discoloration of the atmosphere.

[1] CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.

Pollutant	Major Man-Made Sources	Human Health Effects
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NO_X) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and other sources.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned, when gasoline is extracted from oil, or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid, which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CARB 2024a; USEPA 2024a

2.5.1.3 Existing Air Quality

Attainment Designations

Areas that do not meet state or federal standards (California Ambient Air Quality Standards [CAAQS] and National Ambient Air Quality Standards [NAAQS]) for a particular pollutant are considered to be "nonattainment areas" for that pollutant. The SDAB is a nonattainment area for the NAAQS for ozone (8-hour). The SDAB is an attainment area or unclassified for the NAAQS for all other criteria pollutants, including PM_{10} and $PM_{2.5}$. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (1-hour and 8-hour), PM_{10}, and $PM_{2.5}$ (SDAPCD 2019). The current federal and state attainment status for the SDAB is provided in Table 2-10, *Federal and State Air Quality Designation.*

Table 2-10
FEDERAL AND STATE AIR QUALITY DESIGNATIONS

Criteria Pollutant	Federal Designation	State Designation
Ozone (1-hour)	(No federal standard)	Nonattainment
Ozone (8-hour)	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM_{10}	Unclassifiable[1]	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility	(No federal standard)	Unclassified

Source: SDAPCD 2019
PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 microns or less.
$PM_{2.5}$ = respirable particulate matter with an aerodynamic dimeter of 2.5 microns or less.
[1] At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the San Diego region. The purpose of the monitoring stations is to measure ambient concentrations of criteria air pollutants and determine whether the ambient air quality meets state and federal standards, pursuant to the CAAQS and the NAAQS. The nearest ambient monitoring station to the area is the Otay Mesa – Donovan Road monitoring station located approximately one mile east of the AMP area at 480 Alta Road in San Diego. This station monitors the following criteria air pollutants: O_3, NO_2, and $PM_{2.5}$. There are no monitoring stations in San Diego County with data for PM_{10} in the last three years (2020 through 2022). Air quality data collected at the Otay Mesa - Donovan monitoring station for the years 2020 through 2022 are shown in Table 2-11, *Air Quality Monitoring Data*.

Monitoring data at the Otay Mesa – Donovan Road station reported exceedances of the one-hour ozone state standard on three days in 2020 and on one day in 2022 and exceedances of the 8-hour state/federal ozone standard on ten days in 2020 and on 1 day in 2022. No exceedances of NO_2 occurred during this monitoring period. The Donovan Road station only has reported data for $PM_{2.5}$ in 2022; the federal one-hour $PM_{2.5}$ standard was not exceeded on any day in 2022. Insufficient data was available for the determination of $PM_{2.5}$ annual average standard exceedances in 2020 through 2022 at the Donovan Road station.

Table 2-11
AIR QUALITY MONITORING DATA

Pollutant Standards	2020	2021	2022
Ozone (O_3)			
Maximum concentration 1-hour period (ppm)	0.113	0.085	0.114
Maximum concentration 8-hour period (ppm)	0.100	0.068	0.071
Days above 1-hour state standard (>0.09 ppm)	3	0	1
Days above 8-hour state/federal standard (>0.070 ppm)	10	0	2

Pollutant Standards	2020	2021	2022
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.057	0.061	0.065
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Annual average (ppm)	0.008	0.008	0.007
Exceed annual federal standard (0.053 ppm)	No	No	No
Exceed annual state standard (0.030 ppm)	No	No	No
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration (µg/m^3)	*	*	30.7
Days above 24-hour federal standard (>35 µg/m^3)	*	*	0
Annual average (µg/m^3)	*	*	*
Exceed state and federal annual standard (12 µg/m^3)	*	*	*

Source: CARB 2023. Data collected at the Otay Mesa-Donovan air quality monitoring station.
ppm = parts per million; µg/m^3 = micrograms per cubic meter; * = insufficient data

2.5.2 Biological Resources

2.5.2.1 Vegetation Communities

A total of 10 vegetation communities or land use types are mapped within the AMP area. They include four wetland habitat types (vernal pool, southern willow scrub, disturbed wetland, and open water) and six upland habitat/land use types (maritime succulent scrub, Diegan coastal sage scrub [including disturbed], baccharis scrub, non-native grassland, disturbed habitat, and developed land). The approximate acreages of these vegetation communities/land cover types are presented in Table 2-12, *Existing Vegetation Communities and Land Cover Types Within the AMP Area*, and their locations within the AMP are shown on Figure 2-6, *Vegetation Communities and Land Cover Types*. Figure 2-7, *Existing Biological Conditions*, displays photographs of vegetated areas within the AMP. In this document, "disturbed phase" is used as a subcategory for the classification of vegetation communities where more than half of the vegetation normally present is either bare ground and/or consists of weedy or non-native species characteristic of disturbed areas. These vegetation communities and land cover types are discussed in detail below.

Table 2-12
EXISTING VEGETATION COMMUNITIES AND LAND COVER TYPES WITHIN THE AMP AREA

Vegetation Community or Land Cover Type[1]	Tier	Inside Multi-Habitat Planning Area (acres)	Outside Multi-Habitat Planning Area (acres)	Total Area* (acres)
Southern willow scrub	Wetland	2.04	0.00	2.04
Disturbed wetland	Wetland	0.20	0.00	0.20
Vernal pool	Wetland	0.84	2.68	3.53
Open water	Wetland	0.21	0.00	0.21
Maritime succulent scrub	I	7.7	0.00	7.7
Diegan coastal sage scrub – including disturbed phase	II	61.7	0.0	61.7
Baccharis scrub	II	1.0	0.0	1.0
Non-native grassland	IIIB	59.1	221.3	280.4

Vegetation Community or Land Cover Type[1]	Tier	Inside Multi-Habitat Planning Area (acres)	Outside Multi-Habitat Planning Area (acres)	Total Area* (acres)
Disturbed habitat	IV	37.9	5.9	43.8
Developed	--	1.0	150.3	151.3
	TOTAL	171.7	380.2	551.9

* Totals reflect rounding (0.1 for uplands and 0.01 for sensitive uplands and wetlands/riparian).

[1] Vegetation community codes are from Oberbauer (2008).

Southern Willow Scrub

Southern willow scrub consists of dense, broad-leaved, winter-deciduous stands of trees, dominated willows (*Salix spp.*) in association with mule fat (*Baccharis salicifolia*). This vegetation community appears as a single layer; it lacks separate shrub and tree layers and generally appears as a mass of short trees or large shrubs. It occurs on loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest (Holland 1986).

Arroyo willow (*Salix lasiolepis*) is the dominant species present in this habitat in the AMP area, which occurs in the disjunct Airport-owned parcel at the southwest corner of Otay Mesa Road and Heritage Road (herein referred to as the southwest parcel). A total of 2.04 acres of southern willow scrub was mapped within this parcel.

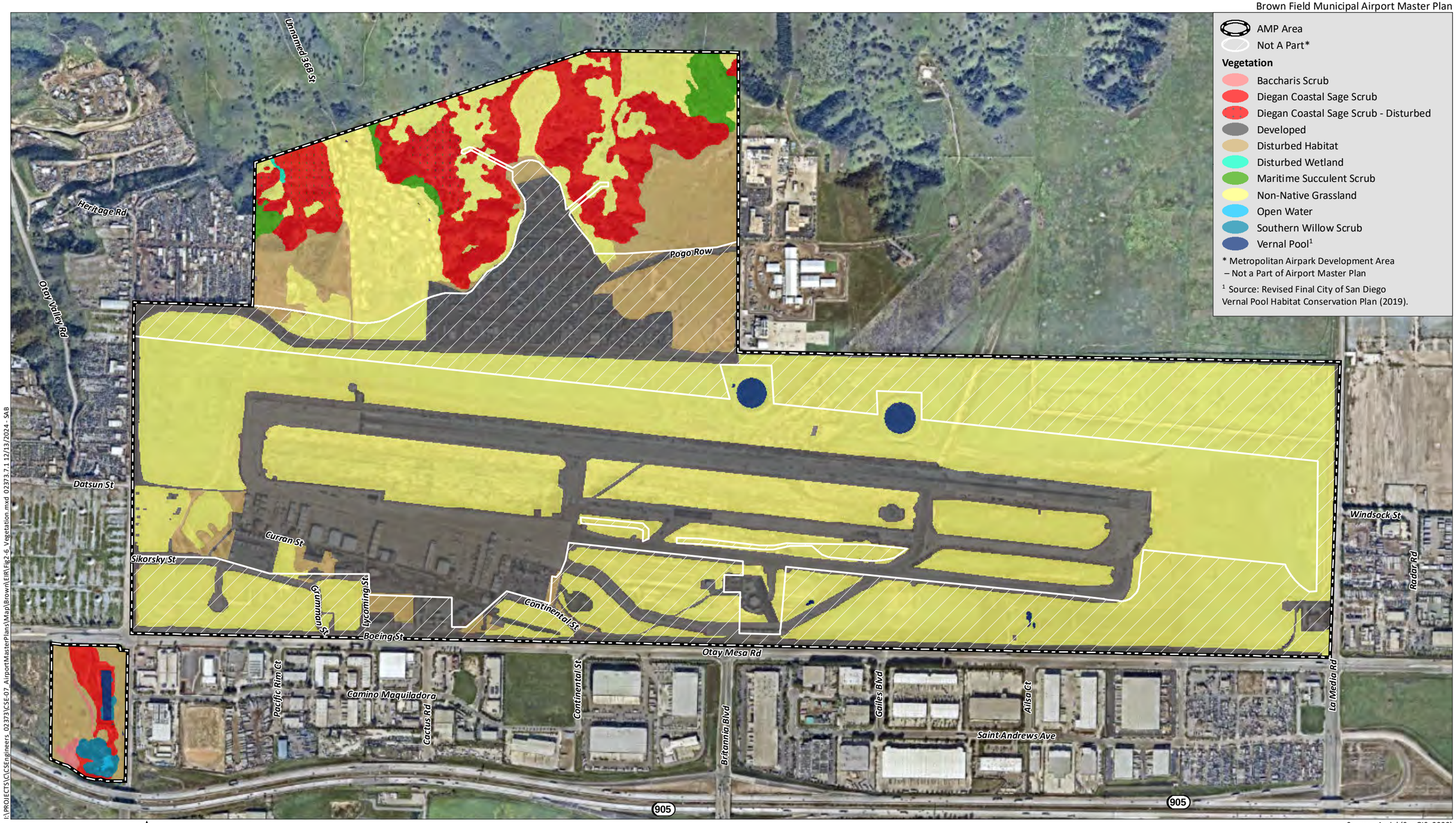
Disturbed Wetland

This vegetation community is dominated by exotic wetland species that invade areas that have been previously disturbed or undergone periodic disturbances. These non-natives become established more readily following natural or human-induced habitat disturbance than the native wetland flora. Characteristic species of disturbed wetlands include annual beard grass (*Polypogon monspeliensis*), bristly ox-tongue (*Helminthotheca echioides*), giant reed (*Arundo donax*), tamarisk (*Tamarix* sp.), cocklebur (*Xanthium strumarium*), and curly dock (*Rumex crispus*).

Disturbed wetland in the AMP area is composed of giant reed, pampas grass (*Cortaderia* sp.), and curly dock (*Rumex crispus*). This habitat occurs as a single stand of habitat within a canyon in the northwestern portion of the AMP area, totaling 0.20 acre.

Vernal Pool

Vernal pools are ephemeral wetlands that form in small pools and swales as a result of a subsurface hardpan or claypan that inhibits the downward percolation of water. The landscape conditions usually consist of relatively level areas (e.g., mesas) with low hummocks (mima mounds) and shallow basins (vernal pools). If sufficient rainfall occurs during the rainy season, the combination of landscape position, low soil permeability, and climatic conditions results in water ponding in the pools, which then gradually evaporates and becomes completely dry over the summer and fall. Vernal pools may not fill at all with water during dry years. These highly specialized wetland habitats support a unique flora and are identified by having at least one indicator plant species present (USACE 1997).



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0 800 Feet

Source: Aerial (SanGIS, 2023)

HELIX Environmental Planning

Vegetation Communities and Land Cover Types

Figure 2-6



Vegetated Hillslopes in the Northern Portion of the AMP Area



Non-native Grasslands in the Western Portion of the AMP Area

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Vernal pool boundaries for the AMP area were obtained from the City's Vernal Pool Database, as depicted in the City's 2019 VPHCP. Pursuant to the VPHCP, a total of 17 vernal pools occur in the AMP area and are situated within the J-35 complex. Characteristic species present in the AMP area vernal pools include dwarf woolly-marbles (*Psilocarphus brevissimus*), spikerush (*Eleocharis* sp.), and lythrum (*Lythrum hyssopifolia*). Vernal pools total 3.53 acres on AMP area.

Open Water

Open water includes areas where standing freshwater is present, with little to no vegetation growing within it, such as the center of a lake, pond, or river. Open water was mapped in the southwestern parcel, totaling 0.21 acre.

Maritime Succulent Scrub

Maritime succulent scrub is a low, open scrub dominated by drought deciduous, subligneous, malacophyllous shrubs with a rich mixture of stem and leaf succulents. The ground is usually bare between shrubs. It is found on thin, rocky or sandy soils, often on steep slopes. Characteristic species include California acalypha (*Acalypha californica*), Shaw's agave (*Agave shawii*), California sagebrush (*Artemisia californica*), golden spined cereus (*Bergerocactus emoryi*), California encelia (*Encelia californica*), cliff spurge (*Euphorbia misera*), San Diego barrel cactus (*Ferocactus viridescens*), California boxthorn (*Lycium californicum*), cholla (*Opuntia* spp.), lemonadeberry (*Rhus integrifolia*), and San Diego sunflower (*Bahiopsis laciniata*).

Characteristic species observed in this habitat in the AMP area include California encelia, San Diego sunflower, California sagebrush, San Diego barrel cactus, bladderpod (*Peritoma arborea*), chalk lettuce (*Dudleya pulverulenta*), jojoba (*Simmondsia chinensis*), and coast cholla (*Cylindropuntia prolifera*). This habitat occurs in the canyons in the northern portion of the AMP area, totaling 7.7 acres.

Diegan Coastal Sage Scrub (including disturbed phase)

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric AMP areas characterized by shallow soils (the other is chaparral). Four distinct coastal sage scrub geographical associations (northern, central, Venturan, and Diegan) are recognized along the California coast. Diegan coastal sage scrub may be dominated by a variety of species depending on soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush, lemonadeberry, California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), and black sage (*Salvia mellifera*).

Diegan coastal sage scrub in the AMP area is dominated by California sagebrush, California buckwheat, lemonadeberry, and California encelia. This habitat occurs on the canyon slopes in the northern portion of the AMP area, adjacent to maritime succulent scrub, as well as within the southwestern parcel, totaling 61.7 acres (including 11.5 acres of disturbed sage scrub).

Baccharis scrub

Baccharis scrub is a subtype of Diegan coastal sage scrub but dominated by baccharis species (broom baccharis (*Baccharis sarothroides*) and/or coyote brush [*B. pilularis*]). It often occurs within

Diegan coastal sage scrub on disturbed sites and areas with nutrient-poor soils, and on upper terraces of streams and in detention basins, where it may co-occur with San Diego goldenbush (*Isocoma menziesii*). Baccharis scrub in the AMP area is confined to the southwestern parcel and totals 1.0 acre.

Non-Native Grassland

Non-native grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include oats (*Avena* spp.), foxtail chess (*Bromus madritensis* ssp. *rubens*), ripgut grass (*B. diandrus*), ryegrass (*Festuca* sp.), and mustard (*Brassica* sp.). Most of the annual introduced species that make up the biomass within the non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate like California. Non-native grassland is the most common vegetation type found in the AMP area; it is found throughout the Airport's surrounding developed areas and within the northern portion of the AMP area. Characteristic species present include oats, red brome, ripgut, and barley (*Hordeum murinum*). Non-native grassland totals 280.4 acres (51 percent) of the AMP area.

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat.

Disturbed habitat in the AMP area includes such species as garland daisy (*Glebionis coronaria*), telegraph weed (*Heterotheca grandiflora*), filaree (*Erodium* sp.), Russian thistle (*Salsola tragus*), and iceplant (*Mesembryanthemum crystallinum* and *M. nodiflorum*). The largest areas of disturbed habitat occur near the canyons in the northern portion of the AMP area, with smaller, scattered patches occurring adjacent to existing developed areas in the southwest. Disturbed habitat totals 43.8 acres in the AMP area.

Developed

Developed land is where permanent structures, pavement, and/or gravel occur, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained. Developed portions of the AMP area consist of existing buildings, parking areas, landscaping, taxiways, and runways, together occupying a total of 151.3 acres (27 percent) of the AMP area.

2.5.2.2 Jurisdictional Resources

The AMP area supports areas that could be considered jurisdictional waters or wetlands potentially subject to the regulatory jurisdiction of the USACE pursuant to Section 404 of the CWA (33 USC 1344), the RWQCB pursuant to Section 401 of the CWA and/or the state Porter-Cologne Water Quality Control Act, and the CDFW pursuant to Sections 1600 et seq. of the CFG Code, or that may be considered City-defined wetlands under the City's Environmentally Sensitive Lands (ESL) ordinance. These include vernal pools, southern willow scrub, disturbed wetland, open water, and drainage ditches. Surveys to delineate jurisdictional resources were conducted within the majority of the

property, excluding the northern canyons, in 2011 (Sage Institute 2011a). Future projects with the potential to impact wetlands and/or waters may require updated jurisdictional delineations to define the type and extent of jurisdictional areas within the action area. Only the USACE, RWQCB, and CDFW can make a final determination of jurisdictional boundaries.

2.5.2.3 Sensitive Plants

Sensitive plant species are those that are considered federal, state, or California Native Plant Society (CNPS) rare, threatened, or endangered; MSCP Covered Species; or MSCP Narrow Endemic (NE) species. More specifically, if a species is designated with any of the following statuses (a-c below), it is considered sensitive per City Municipal Code (Chapter 11, Article 3, Division 1):

a. A species or subspecies is listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;

b. A species is a Narrow Endemic as listed in the Biology Guidelines in the Land Development Manual (City 2018); and/or

c. A species is an MSCP Covered Species as listed in the Biology Guidelines in the Land Development Manual (City 2018).

A plant species may also be considered sensitive if it is included in the CNPS Inventory of Rare and Endangered Plants. Sensitive plant status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occurs only in very specific habitats. Lastly, a species may be widespread but exists naturally in small populations.

Two federally and state listed plant species have been recorded within the AMP area; these are the federally and state listed endangered San Diego button-celery (*Eryngium aristulatum var. parishii*) and Otay tarplant (*Deinandra conjugens*). Six other sensitive plant species have been recorded on-site, including three California Rare Plant Rank (CRPR) designation 1 or 2 species: San Diego barrel cactus (*Ferocactus viridescens*), San Diego bur-sage (*Ambrosia chenopodiifolia*), and variegated dudleya (*Dudleya variegata*); and three CRPR designation 4 species: ashy spike-moss (*Selaginella cinerascens*), San Diego County needlegrass (*Stipa diegoense*), and San Diego sunflower (*Bahiopsis laciniata*). These eight species, along with their respective listing, distributions, habitats, and presence within the AMP area, are shown in Table 2-13, *Sensitive Plant Species within the AMP Area.*

Table 2-13
SENSITIVE PLANT SPECIES WITHIN THE AMP AREA

Species	Listing	Distribution	Habitat	Presence within AMP Area
San Diego Button-celery (*Eryngium aristulatum* var. *parishii*)	FE/SE; CRPR 1B.1; City MSCP Narrow Endemic	San Diego and Riverside counties; Baja California, Mexico.	Vernal pools or mima mound areas with vernally moist conditions	Approximately 90 individuals observed in association with a single vernal pool in the southeast portion of the Airport boundary in 2011 (Sage Institute 2011b). This occurrence is within the AMP area, but outside of the proposed development footprint. This species has not been documented in any other location on the Airport property.
Otay Tarplant (*Deinandra conjugens*)	FT/SE; CRPR 1B.1; City MSCP Narrow Endemic; City MSCP Covered	Southern San Diego County and northwestern Baja California, Mexico. In San Diego County, found in scattered localities from the vicinity of Sweetwater Reservoir south to the Mexico border.	Fractured clay soils in grasslands or lightly vegetated coastal sage scrub.	Most recent record is from 1999, when species was observed in the northwest corner of the AMP area near the canyons. Species was not detected during subsequent rare plant surveys when species was detectable at nearby reference sites (Merkel and Associates 2008), or during 2011 biological surveys (Sage Institute 2011b).
Ashy Spike-moss (*Selaginella cinerascens*)	CRPR 4.1	Orange and San Diego counties; northwestern Baja California, Mexico	Flat mesas in coastal sage scrub and chaparral. A good indicator of site degradation, as it rarely inhabits disturbed soils.	Mapped in sage scrub in the northern portion of the AMP area in 1998. Presumed extant.
San Diego Barrel Cactus (*Ferocactus viridescens*)	CRPR 2B.1; City MCSP Covered	San Diego County; Baja California, Mexico	Optimal habitat for this cactus appears to be Diegan coastal sage scrub hillsides, often at the crest of slopes and growing among cobbles. Occasionally found on vernal pool periphery and mima mound topography in Otay Mesa.	Species is abundant in maritime succulent scrub and sage scrub along upper fringes of the canyons in the northern portion of the AMP area.

Species	Listing	Distribution	Habitat	Presence within AMP Area
San Diego Bursage (*Ambrosia chenopodiifolia*)	CRPR 2B.1	Southwestern San Diego County, Arizona, and Mexico below 600 feet in elevation. Known from several sites in Otay Mesa	Arid, low-growing, fairly open Diegan coastal sage scrub is preferred.	Mapped in sage scrub in one of the northern canyons in 1998. Presumed extant.
San Diego County Needlegrass (*Stipa diegoense*)	CRPR 4.2	San Diego County; Baja California, Mexico; Channel Islands	Chaparral and sage scrub ecotone are preferred. The species is closely associated with metavolcanic soils and can been found in fine sandy loam and rocky silt loams. Peaks and upper ridgelines of mountains appear the preferred microhabitat.	Mapped in sage scrub in one of the northern canyons in 1998. Presumed extant.
San Diego Sunflower (*Bahiopsis laciniata*)	CRPR 4.2	San Diego and Orange County; Baja California, Mexico	Diegan coastal sage scrub. Generally, shrub cover is more open than at mesic, coastal locales supporting sage scrub. Occurs on a variety of soil types.	Species is abundant in maritime succulent scrub and sage scrub along upper fringes of the canyons in the northern portion of the AMP area.
Variegated Dudleya (*Dudleya variegata*)	CRPR 1B.2; City MSCP Narrow Endemic; City MCSP Covered	Southern San Diego County; northwestern Baja California, Mexico	Openings in sage scrub and chaparral, isolated rocky substrates in open grasslands, and a proximity to vernal pools and mima mound topography characterize habitats utilized by this species.	Mapped in sage scrub in one of the northern canyons in 1998. Presumed extant.

2.5.2.4 Sensitive Wildlife

Sensitive animal species are those that are considered federal or state threatened or endangered; MSCP Covered Species; or MSCP NE species. More specifically, if a species is designated with any of the following statuses (a-c below), it is considered sensitive per SDMC (Chapter 11, Article 3, Division 1):

a. A species or subspecies is listed as endangered or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;

b. A species is a Narrow Endemic as listed in the Biology Guidelines in the Land Development Manual (City 2018); and/or

c. A species is a MSCP Covered Species as listed in the Biology Guidelines in the Land Development Manual (City 2018).

A species may also be considered sensitive if it is included on the CDFW's Special Animals List (CDFW 2024) as a candidate for federal or state listing, state Species of Special Concern, state Watch List species, state Fully Protected species, or federal Bird of Conservation Concern. Generally, the principal reason an individual taxon (species or subspecies) is considered sensitive is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Additionally, avian nesting is protected by the federal Migratory Bird Treaty Act (MBTA) and CFG Code.

Three federally listed animal species and one state listed animal species have been documented within the AMP area; these include the federally listed coastal California gnatcatcher (*Polioptila californica californica*), Riverside fairy shrimp (*Streptocephalus woottonii*), and San Diego fairy shrimp (*Branchinecta sandiegonensis*), and the state listed American peregrine falcon (*Falco peregrinus anatum*). These four species, along with their respective status, distributions, habitats, and presence within the AMP area, are shown in Table 2-14, *Sensitive Wildlife Species within the AMP Area.* A review of the USFWS database for listed species occurrences indicates that a fifth species, the federally listed endangered Quino checkerspot (*Euphydryas editha quino*), was present in the AMP area in 1976 and 1977. However, focused surveys conducted in 2011, 2008, and 1998 failed to detect this species. It is presumed absent from the AMP area.

Eleven other sensitive animal species have either been documented in the AMP area or were determined to have high potential to occur in the AMP area: burrowing owl (BUOW; Athene *cunicularia*), California horned lark (*Eremophila alpestris actia*), grasshopper sparrow (*Ammodramus savannarum*), golden eagle (*Aquila chrysaetos*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), orange-throated whiptail (*Aspidoscelis hyperythra*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and yellow warbler (*Setophaga petechia*). These ten species, along with their respective status, distributions, habitats, and presence within the AMP area, are shown in Table 2-14.

Table 2-14
SENSITIVE SPECIES WILDLIFE WITHIN THE AMP AREA

Species	Listing	Distribution	Habitat	Presence within AMP Area
American peregrine falcon (*Falco peregrinus anatum*)	BCC/SE; FP; City MSCP Covered	Rare in San Diego County year-round but more abundant near the coast and in winter.	Nesting usually occurs on cliff ledges near water where prey (shorebirds and ducks) is concentrated, but also may nest on tall buildings and bridges. Preferred hunting areas are agricultural fields, meadows, marshes, and lakes.	One individual was observed perched on a fence in the north-central part of the AMP area during surveys for the MAP project (Sage Institute 2011a). Suitable foraging habitat occurs on-site, but suitable nesting habitat is not present.
Coastal California Gnatcatcher (*Polioptila californica californica*)	FT/SSC; City MSCP Covered	In San Diego County, occurs throughout coastal lowlands	Coastal sage scrub, coastal bluff scrub, and coastal sage-chaparral scrub	A single male was detected within Diegan coastal sage scrub in the northern portion of the AMP area in 2015 (ECORP 2015). This species was also detected during the 2017-2018 wildlife hazard assessment field surveys (EnviroSystems Management, Inc. 2018).
San Diego Fairy Shrimp (*Branchinecta Sandiegonensis*)	FE	San Diego County and extreme northern Baja California, Mexico	Seasonally astatic pools which occur in tectonic swales or earth slump basins and other areas of shallow, standing water often in patches of grassland and agriculture interspersed in coastal sage scrub and chaparral	Adult San Diego fairy shrimp have been documented in three vernal pools within the AMP area (Sage Institute 2011c).

Species	Listing	Distribution	Habitat	Presence within AMP Area
Riverside Fairy Shrimp (*Streptocephalus woottonii*)	FE	Western Riverside County, Orange County; and San Diego County. Known from 45 vernal pool complexes, including 26 in San Diego County, including within the City of San Diego, Marine Corps Air Station Miramar, Marine Corps Base Camp Pendleton, and Otay Mesa	Vernal pools and other non-vegetated ephemeral pools greater than 12 inches deep	Species was detected in two pools within the AMP area in 1998. Subsequent surveys conducted in 2008, 2009, 2010, and 2011 were negative for this species (Environmental Science Associates [ESA] 2013).
Burrowing Owl (*Athene cunicularia*)	BCC/SSC (nesting sites and some wintering sites); City MSCP Covered	In San Diego County, occurs in a few scattered sites	Grassland or open scrub habitats	Several surveys performed between 1997 and 2014 identified a significant BUOW population within the airport boundary. The 2014 survey identified 14 active burrows, nine of which were occupied by breeding pairs and five were occupied by individual owls (ESA 2014). Similarly, 11 active nesting pairs and two individual owls were documented in 2011 (Sage Institute 2011a). This species was also observed by HELIX in 2017, as well as during the 2017-2018 wildlife hazard assessment field surveys (EnviroSystems Management, Inc. 2018). The San Diego Zoo Institute for Conservation Research also had numerous observations of this species during surveys conducted in 2018 in association with mitigation for the MAP project.
Golden Eagle (*Aquila chrysaetos*)	BGEPA; BCC/WL, Fully Protected	In San Diego County, has the largest territory and lowest population density of any bird (Unitt 2004). Scattered throughout undeveloped San Diego County year-round.	Nesting occurs on cliff ledges or in trees on steep slopes, with foraging occurring primarily in grassland and sage scrub. Not usually observed near development	Observed flying over the northern portion of the AMP area in 1998. No suitable nesting habitat occurs within the AMP area.

Species	Listing	Distribution	Habitat	Presence within AMP Area
Grasshopper Sparrow (*Ammodramus savannarum*)	SSC	Scattered in small numbers throughout San Diego County year-round.	Grassland	Species is known from the site vicinity, although not detected during surveys (Sage Institute 2011a).
Yellow Warbler (*Setophaga petechia*)	BCC/SSC	Observed throughout California during the breeding season with rare sightings in winter	Riparian woodland, riparian forest, mule fat scrub, and southern willow scrub	One individual was detected in southern willow scrub in the southwest portion of the AMP area by HELIX in 2017 (southwest corner of Otay Mesa Road and Heritage Road). This species was also detected during the 2017-2018 wildlife hazard assessment field surveys (EnviroSystems Management, Inc. 2018).
Loggerhead Shrike (*Lanius ludovicianus*)	BCC/SSC	An uncommon year-round resident observed throughout San Diego County but absent from pinyon woodlands in higher elevations of the Santa Rosa and Vallecito mountains	Grassland, open sage scrub, chaparral, and desert scrub	Observed in coastal sage scrub in the northern portion of the AMP area in 1998. This species was also detected during the 2017-2018 wildlife hazard assessment field surveys in the AMP area (EnviroSystems Management, Inc. 2018).
Northern Harrier (*Circus cyaneus*)	SSC; City MSCP Covered	In San Diego County, distribution primarily scattered throughout lowlands but can also be observed in foothills, mountains, and desert	Open grassland and marsh	Observed in the northern portion of the AMP area in 1998. This species was also detected during the 2017-2018 wildlife hazard assessment field surveys in the AMP area (EnviroSystems Management, Inc. 2018).
Orange-throated Whiptail (*Aspidoscelis hyperythra*)	WL	Southern Orange County and southern San Bernardino County, south through Baja California.	Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites	Observed in the southwest portion of the AMP area in 1998. Likely occurs in sage scrub and maritime succulent scrub in the northern portion of the AMP area.

Species	Listing	Distribution	Habitat	Presence within AMP Area
San Diego Black-tailed Jackrabbit *(Lepus californicus bennettii)*	SSC	Southern Santa Barbara County, south on the coastal slope to the vicinity of San Quintin, Baja California, Mexico. Localities on the eastern edge of its range include Jacumba and San Felipe Valley in San Diego County	Occurs primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present	Observed in the southwest portion of the AMP area in 1998 (southwest corner of Otay Mesa Road and Heritage Road). This species was also detected numerous times during the 2017-2018 wildlife hazard assessment field surveys (EnviroSystems Management, Inc. 2018).
Coastal Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*)	BCC/SSC, City MSCP Covered	Observed in coastal lowlands of San Diego County	Cactus thickets	Observed in coastal sage scrub in the northern portion of the AMP area in 1998, as well as observation of a pair of wrens in this same area by USGS biologists conducting surveys in 2017 (personal communication with City Airport biologist, 2020).
Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)	WL; City MSCP	Observed throughout coastal lowlands and foothills of San Diego County	Coastal sage scrub and open chaparral as well as shrubby grasslands	Observed in coastal sage scrub in the northern portion of the AMP area in 1998. This species was not detected during the 2017-2018 wildlife hazard assessment field surveys (EnviroSystems Management, Inc. 2018).
California Horned Lark (*Eremophila alpestris actia)*	WL	Observed year-round scattered throughout San Diego County	Coastal strand, arid grasslands, and sandy desert floors	Observed foraging in the AMP area in 2017. This species was also detected in abundance during the 2017-2018 wildlife hazard assessment field surveys (EnviroSystems Management, Inc. 2018). It is a commonly occurring species in the AMP area.

Species	Listing	Distribution	Habitat	Presence within AMP Area
White-tailed Kite (*Elanus leucurus*)	Fully Protected	Observed throughout California during the breeding season with rare sightings in winter	Riparian woodlands and oak or sycamore groves adjacent to grassland	Observed foraging in the AMP area in 2011. This species was also detected during the 2017-2018 wildlife hazard assessment field surveys for SDM (EnviroSystems Management, Inc. 2018).

2.5.3 Geology and Soils

2.5.3.1 Geologic Setting

San Diego is located within the western (coastal) portion of the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges encompass an area that roughly extends from the Transverse Ranges and the Los Angeles Basin, south to the Mexican border, and beyond another approximately 800 miles to the tip of Baja California. The geomorphic province varies in width from approximately 30 to 100 miles, most of which is characterized by northwest-trending mountain ranges separated by subparallel fault zones. In general, the Peninsular Ranges are underlain by Jurassic-age metavolcanic and metasedimentary rocks and by Cretaceous-age igneous rocks of the Southern California Batholith. Geologic cover over the basement rocks in the westernmost portion of the province in San Diego County generally consists of Upper Cretaceous-, Tertiary-, and Quaternary-age sedimentary rocks.

2.5.3.2 Soils and Geologic Formations

Geologic and surficial units within the AMP area include artificial fill materials, Very Old Paralic Deposits (formerly the Lindavista Formation), the San Diego Formation, and the Otay Formation. These units are described below in order of increasing age and their locations in relation to the AMP area. See Figure 2-8, *Geologic Map*.

Artificial Fill

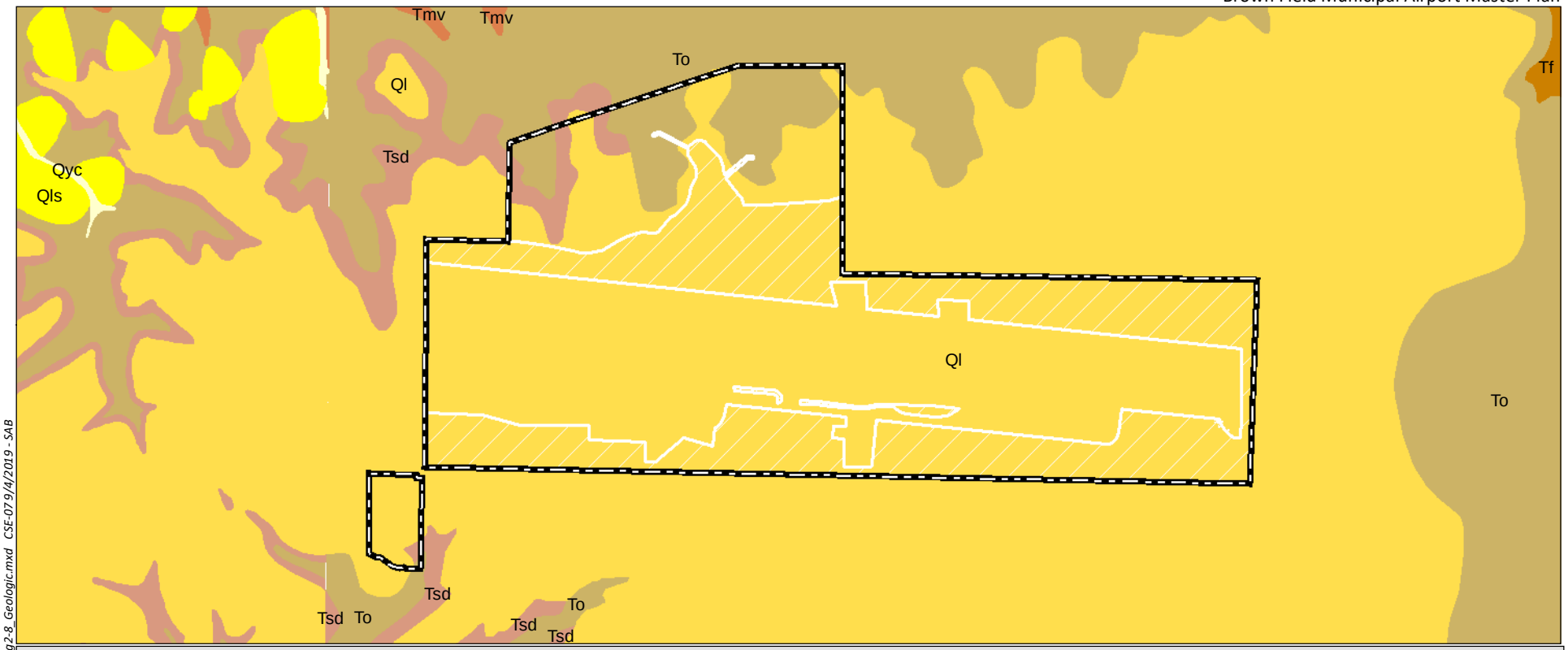
Although there are no mapped limits of artificial fill, man-made fill underlies portions of the AMP area associated with the construction of buildings or infrastructure. These fills are likely compacted.

Very Old Paralic Deposits

Very Old Paralic Deposits (formerly the Lindavista Formation) are present across most of the AMP area. This formation is exposed at the surface of the mesa. The Very Old Paralic Deposits in the AMP area consist of clay (mudstone) overlying reddish-brown sandstone, which grades to a gravel and cobble conglomerate. The thickness of the mudstone unit ranges from approximately 4 feet to 20 feet. The thickness of the sandstone and conglomerate unit is generally less than 30 feet. According to the OMCP, geotechnical tests previously performed in the area indicate that the mudstone is highly expansive. The presence of these highly expansive materials requires special foundations for buildings and measures to prevent excessive soil heave that can damage surface improvements such as sidewalks and pavements.

San Diego Formation

The San Diego Formation consists of volcanic and quartzite cobbles, as well as sandstone and clay stone. This formation underlies the AMP area and is exposed on the slopes in the northwestern portion of the property. The San Diego Formation consists of dense, yellow-brown, fine- to medium-grained, poorly indurated micaceous sandstone. Materials derived from this formation have low expansive properties and relatively good shear strength characteristics. As such, the formation is



AMP Area

Not A Part*

Geologic Formation

Ql - Alluvial deposits (middle to early Pleistocene); well consolidated, poorly sorted flood plain deposits consisting of gravel, sand, silt and clay.

Tf - Otay Formation-fanglomerate facies (Oligocene to Miocene); poorly cemented bouldery conglomerate and coarse-grained sandstone. Interfingered with overlying To.

Tmv - Mission Valley Formation (Eocene)—Marine sandstone; soft, friable, light-olive-gray, fine- to medium-grained. Mostly of quartz and potassium feldspar. Maximum thickness is 60. Has interbeds of claystone.

To - Otay Formation (Oligocene to Miocene); poorly indurated massive lightcolored sandstone, siltstone and claystone, interbedded with bentonite lenses.

Tsd - San Diego Formation (Pliocene); poorly indurated, fine- to medium-grained sandstone, typically yellowish light brown.

Qls - Landslide deposits (Quaternary)—Localized deposits of unconsolidated to consolidated earth and rock materials that moved downslope as landslides.

Qyc- Young alluvium (Holocene)—Sand, silt, and gravel in modern streambeds and washes. Includes recent material accumulated on active alluvial fans.

* Metropolitan Airpark Development Area – Not a Part of Airport Master Plan

0 2,000 Feet

Source: Geologic Formation (California Geological Survey, 2002)

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Geologic Map

Figure 2-8

considered geologically stable. Exposed portions of the San Diego Formation in the northwestern portion of the property are cohesionless and erodible on slopes.

Otay Formation

The Otay Formation consists of silty sandstone to claystone. This formation is exposed in the northwestern portion of the AMP area. The Otay Formation underlies the San Diego Formation and is generally distinguished from the San Diego Formation by an increase in clay content. The claystone is light gray to light brown, moderately well sorted, waxy, and composed almost exclusively of bentonite. The bentonitic materials are highly expansive and have very low shear strength. The Otay Formation is generally flat-lying or nearly horizontally bedded, which is favorable for overall stability.

2.5.3.3 Geologic Hazards

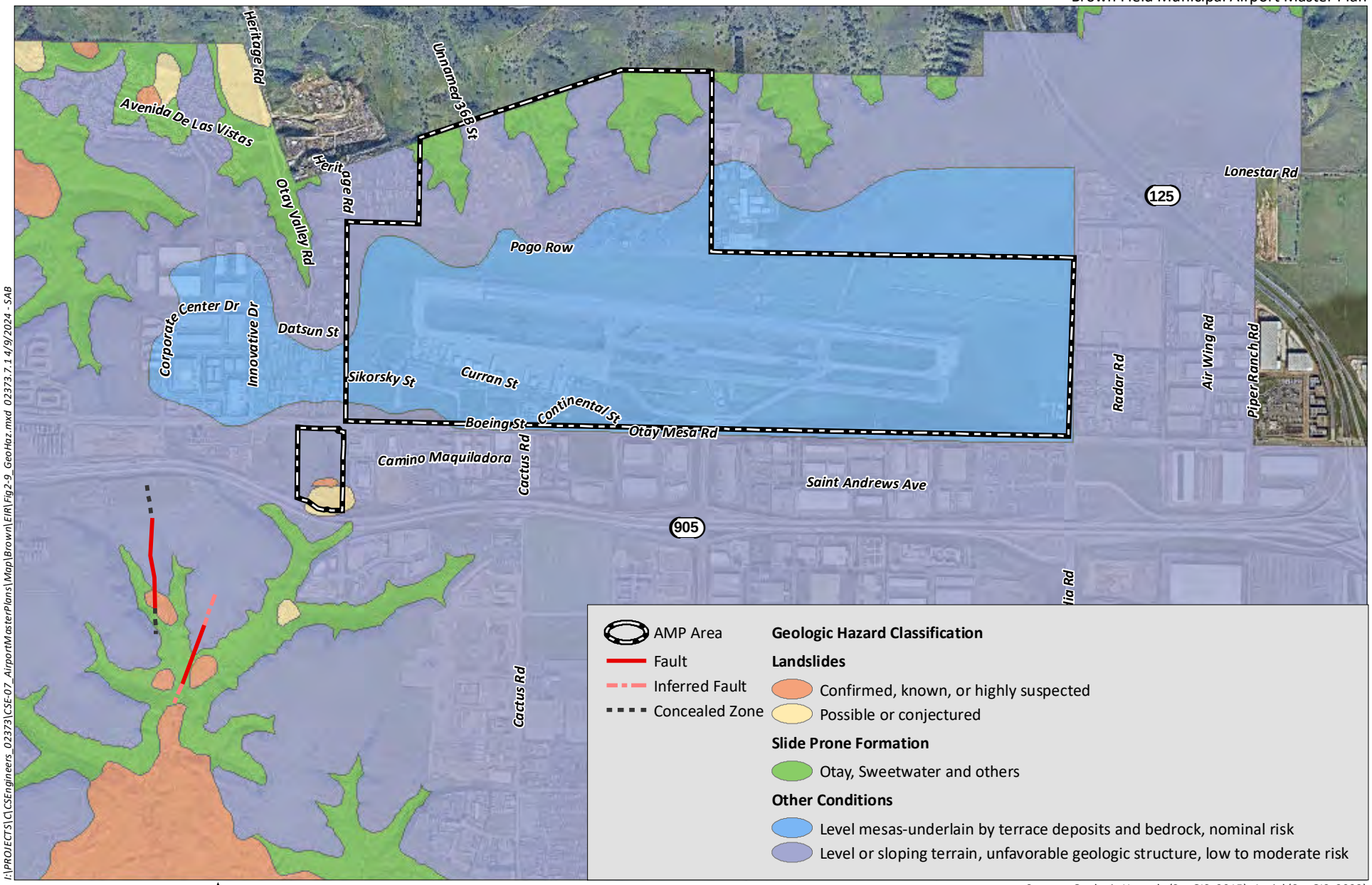
Geologic Hazard Categories

The City of San Diego Seismic Safety Study (City 2008c) Geologic Hazards and Faults maps document the known and suspected geologic hazards and faults in the region. The maps show potential hazards and rates them by relative risk, on a scale from nominal to high. The Seismic Safety Study is intended as a tool to determine the level of geotechnical review to be required by the City for planning, development, or building permits. The mesa that covers most of the AMP area is designated as Geologic Hazard Category 51, which includes other terrain characterized by "level mesas - underlain by terrace deposits or bedrock" with nominal risk. The northern portion of the AMP area is designated as Geologic Hazard Category 53, "level or sloping terrain, unfavorable geologic structure" with low to moderate risk. See Figure 2-9, *Geologic Hazards*.

Faulting and Seismicity

San Diego is affected by the boundary between the North American and Pacific tectonic plates. The boundary in southern California is characterized by a wide zone of predominantly northwest-striking, right-slip faults that span the Imperial Valley and Peninsular Range to the offshore California Continental Borderland Province (from the California continental slope to the coast). Within the San Diego region, this zone extends from the San Clemente fault zone, located approximately 60 miles west of San Diego, to the San Andreas fault zone, approximately 70 miles east of San Diego. The most active faults based on geodetic and seismic data are the San Andreas, San Jacinto, and Imperial faults. These faults take up most of the plate motion. Smaller faults, however, are active enough to create damaging earthquakes, and these include the Elsinore, Newport-Inglewood-Rose Canyon, and the offshore Coronado Banks, San Diego Trough, and San Clemente fault zones. The AMP area is not underlain by active or potentially active faults.

The nearest active fault capable of causing ground rupture and strong earthquake shaking is the Rose Canyon fault zone, located approximately nine miles west of the AMP area. The Rose Canyon fault zone is the southernmost portion of the Newport-Inglewood fault zone, which extends from Long Beach to the north to the Descanso fault, offshore of Baja California. A Magnitude 6.3 earthquake occurred on the Newport-Inglewood fault in 1933 and caused serious damage in the Los Angeles area. There have been no historical damaging earthquakes documented on the Rose



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Source: Geologic Hazards (SanGIS, 2015), Aerial (SanGIS, 2023)

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Geologic Hazards

Figure 2-9

Canyon fault nor has there been historical fault rupture. Fault trenching on the Rose Canyon fault has shown that the fault has ruptured the ground surface several times in the last 10,000 years.

The nearest potentially active fault is the La Nacion fault zone, located approximately two miles west of the AMP area. This fault zone extends from just west of San Diego State University (SDSU) and southward to the United States/Mexico border. The fault is a normal fault showing extensional separations. The fault offsets the lower portion of the early Pleistocene very old paralic deposits in southern San Diego County but shows very little, if any geomorphic features typical of recent fault offset. The fault zone may be a secondary feature resulting from movement on the Rose Canyon fault zone. Based on its length, the fault is estimated to be capable of causing Magnitude 6.7 earthquakes.

2.5.3.4 Groundwater

Site-specific information on groundwater depth is not available. Near surface groundwater (less than 20 feet deep) is unlikely to occur in the geologic formations found on the mesa.

2.5.4 Greenhouse Gas Emissions

The AMP area is currently a source of anthropogenic greenhouse gas (GHG) emissions, with emissions generated by aircraft activity and vehicular traffic and by the energy use, water use, and solid waste management practices of existing development.

2.5.4.1 Worldwide and National Greenhouse Gas Inventory

In 2020, total anthropogenic GHG emissions worldwide were estimated at 49,800 million metric tons (MMT) of CO_2e emissions (PBL Netherlands Environmental Assessment Agency [PBL] 2022). The five largest emitting countries and the European Union (EU-27), together account for about 60 percent of total global GHG emissions: China (27 percent), the United States (12 percent), the European Union (about 7 percent), India (7 percent), the Russian Federation (4.5 percent) and Japan (2.4 percent) (PBL 2022).

Per USEPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2020, total United States GHG emissions were approximately 5,981 MMT CO_2e in 2020 (USEPA 2022). The primary GHG emitted by human activities in the United States was CO_2, which represented approximately 76.4 percent of total GHG emissions (4,760 MMT CO_2e). The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 92.8 percent of CO_2 emissions in 2018 (5,031.8 MMT CO_2e). Relative to 1990, gross United States GHG emissions in 2020 were lower by 7.3 percent, down from a high of 15.2 percent above 1990 levels in 2007. GHG emissions decreased from 2019 to 2020 by 10.6 percent, and overall, net emissions in 2020 were 21.4 percent below 2005 levels (USEPA 2022).

2.5.4.2 Statewide and Regional Greenhouse Gas Emissions

The California Air Resources Board (CARB) performed statewide inventories for the years 2000 to 2020, as shown in Table 2-15, *California Greenhouse Gas Emissions by Sector*. The inventory is

divided into five broad sectors of economic activity: agriculture, commercial and residential, electricity generation, industrial, and transportation. Emissions are quantified in MMT CO_2e.

Table 2-15
CALIFORNIA GREENHOUSE GAS EMISSIONS BY SECTOR
(MMT CO_2e)

Sector	1990	2000	2010	2020
Agriculture and Forestry	18.9 (4%)	31.0 (7%)	33.7 (8%)	31.6 (9%)
Commercial and Residential	44.1 (10%)	45.8 (10%)	52.2 (12%)	38.7 (10%)
Electricity Generation	110.5 (26%)	105.4 (22%)	90.6 (20%)	59.5 (16%)
Industrial	105.3 (24%)	105.8 (22%)	101.8 (23%)	73.3 (20%)
Transportation	150.6 (35%)	183.2 (39%)	170.2 (38%)	135.8 (37%)
Unspecified Remaining	1.3 (<1%)	0.0 (0%)	0.0 (0%)	30.2 (8%)
TOTAL	430.7	471.1	448.5	369.1

Source: CARB 2007

As shown in Table 2-15, statewide GHG source emissions totaled 430.7 MMT CO_2e in 1990, 471.1 MMT CO_2e in 2000, 448.5 MMT CO_2e in 2010, and 369.1 MMT CO_2e in 2020. Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

A San Diego regional emissions inventory was prepared by the University of San Diego School of Law Energy Policy Initiative Center that considered the unique characteristics of the region. Their 2014 emissions inventory for San Diego is shown below in Table 2-16, *San Diego County Greenhouse Gas Emissions by Sector*. The sectors included in this inventory are somewhat different from those in the statewide inventory. Similar to the statewide emissions, transportation-related GHG emissions contributed the most countywide, followed by emissions associated with energy use.

Table 2-16
SAN DIEGO COUNTY GREENHOUSE GAS EMISSIONS BY SECTOR
(MMT CO2e)

Sector	2014
On-Road Transportation	1.46 (45%)
Electricity	0.76 (24%)
Solid Waste	0.34 (11%)
Natural Gas Consumption	0.29 (9%)
Agriculture	0.16 (5%)
Water	0.13 (4%)
Off-Road Transportation	0.04 (1%)
Wastewater	0.02 (1%)
Propane	0.01 (<0.5%)
Total	3.21

Source: County 2014
MMT = million metric tons; CO_2e = carbon dioxide equivalent

2.5.4.3 City-wide Greenhouse Gas Emissions

As reported in the City of San Diego CAP Annual Report 2020, the total community-wide GHG emissions from the City in 2019 were approximately 9.6 million MMT CO_2e, a 25 percent decrease in emissions from 2010. Decreases in GHG emissions from electricity consumption, transportation, solid waste, and water use offset some increases seen from natural gas consumption and wastewater production year-over-year (City 2024).

2.5.5 Historical, Archaeological, and Tribal Cultural Resources

Historical resources are physical features, both natural and constructed, that reflect past human existence and are of historical, archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance. These resources may include such physical objects and features as archaeological sites and artifacts, buildings, groups of buildings, structures, districts, street furniture, signs, cultural properties, and landscapes. Historical resources in the San Diego region span a timeframe of at least the last 10,000 years and include both the prehistoric and historic periods. For purposes of the PEIR, historical resources consist of historic buildings, structures, objects, or sites, prehistoric and archaeological resources, sacred sites and human remains, and tribal cultural resources determined to be significant or potentially significant under CEQA. See additional information below, Section 5.6 of this PEIR, and Appendix E, Historical Resources Technical Report (IS Architecture 2019).

Archaeological resources include prehistoric and historic locations or sites where human actions have resulted in detectable changes to the area. This can include changes in the soil, as well as the presence of physical cultural remains. Archaeological resources can have a surface component, a subsurface component, or both. Historic archaeological resources originate after European contact. These resources may include subsurface features such as wells, cisterns, or privies. Other historic archaeological remains include artifact concentrations, building foundations, or remnants of structures.

A Tribal Cultural Resource is defined as a site, feature, place, cultural landscape, sacred place or object, that is of cultural value to a Tribe, and is either on or eligible for listing in the national, state, or a local historic register, or the lead agency, at its discretion, chooses to treat the resource as a Tribal Cultural Resource (PRC Section 21074).

2.5.5.1 Historical Setting

There are three general eras in California history: the Spanish, Mexican, and American periods.

Spanish Period

While Juan Rodriguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769, the year that the Royal Presidio of San Diego was founded on a hill overlooking the San Diego River. A small pueblo, now known as Old Town San Diego, developed below the presidio. The Mission San Diego de Alcalá was constructed in its current location five years later. The Spanish period was characterized by religious and military institutions bringing Spanish culture to the area and attempting to convert the Native American population to

Christianity. The economy of Alta California during this period was based on cattle ranching at the missions; a minor amount of agriculture and commerce took place in and around San Diego.

Mexican Period

Mexico, including Alta California, gained its independence from Spain in 1821, but Spanish culture and influence remained as the missions continued to operate as they had in the past, and laws governing the distribution of land were also retained for a period of time. Following the secularization of the missions in 1834, large ranchos were granted to prominent and well-connected individuals and the society made a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. With numerous new ranchos, cattle ranching expanded and prevailed over agricultural activities. These ranches put new pressures on California's native populations, as grants were made for inland areas still occupied by the Kumeyaay, forcing them to acculturate or relocate farther into the backcountry.

American Period

The Mexican period ended when Mexico ceded California to the United States after the Mexican-American War (1846–1848), which concluded with the Treaty of Guadalupe Hidalgo. A great influx of settlers to California and the San Diego region occurred during the American Period, resulting from several factors including the discovery of gold in the state in 1849, the end of the Civil War, the availability of free land through the passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. The increase in American and European populations quickly overwhelmed many of the Spanish and Mexican cultural traditions.

The 1880s saw "boom and bust" cycles that brought thousands of people to the area of San Diego County. By the end of the decade, many had left, although some remained to form the foundations of small communities based on dry farming, orchards, dairies, and livestock ranching. During the late 19th and early 20th centuries, rural areas of San Diego County developed small agricultural communities centered on one-room schoolhouses.

By the 1890s, the City entered a time of steady growth, and subdivisions such as Golden Hill, Sherman Heights, Logan Heights, Banker's Hill, and University Heights were developed. As the City continued to grow in the early 20th century, the downtown's residential character changed. Streetcars and the introduction of the automobile allowed people to live farther from their downtown jobs and new suburbs were developed. The influence of military development, beginning in 1916 and 1917 during World War I, resulted in substantial development in infrastructure and industry to support the military and accommodate soldiers, sailors, and defense industry workers. In the post-World War II years, San Diego grew significantly, with new jobs created in the aircraft industry, shipbuilding, fishing, and other enterprises.

Brown Field Historical Context

Aviation on Otay Mesa began during World War I (WWI) when the Army used a training field at Alta School. Soon thereafter, to relieve congestion at Rockwell Field at North Island, the Army established a 640-acre Airport on Otay Mesa in 1918 and requisitioned the Alta School grounds to establish an operational base. However, commensurate with the end of WWI, the army no longer needed the

Otay Mesa base and by April 1919 it was under caretaker status and training resumed at the Alta School.

During the 1920s the U.S. Navy began to use Otay Mesa for aviation training. On December 1, 1928, the Navy leased approximately 320 acres located just to the west of Alta School, consisting of the South Half of Section 28, Township 18 South, Range 1 West (San Bernardino Meridian), as an auxiliary air field to Naval Air Station San Diego on North Island for "touch and go" landing practices. Its elevation at 500 feet above sea level kept the field open when mist and fog made flying at other coastal Navy fields difficult.

In 1931 the Otay Mesa landing field measured 2,500 by 500 feet. It did not have a graded landing strip but consisted simply of an open field with concentrations of ruts worn into the ground from numerous practice landings. It was not to be used by commercial pilots except in emergencies. In 1938 radio-controlled target drone experiments were conducted at Otay Mesa.

With the outbreak of World War II (WWII) in Europe in 1939, the United States made a concentrated effort to improve its military capabilities. The war had a significant effect on the role of aircraft in the Navy. During WWII, the aircraft carrier assumed equal importance with the battleship and the air station took its place with the navy yard and training center as an indispensable and major element of Navy logistical support. From 1939 to 1946 naval aircraft ground facilities grew. During this time, the Otay Mesa Airport consisted of a parcel of 318.99 acres that had been acquired under condemnation proceedings in December 1940. In 1942 due to an increase in the authorized number of naval aircraft and active participation of the United States in WWII, naval operations needed planes and pilots, which led to the direct establishment of Auxiliary Naval Air Station Otay Mesa, which later became Brown Field. Naval Air Station Brown Field was commissioned on March 17, 1943, as an auxiliary Airport to Naval Air Station San Diego. In August 1943, Chief of Naval Operations designated the station Brown Field in memory of Commander Melville Stuart Brown, USN, who had been killed in a plane crash in November 1936 near Descanso, California. Formal dedication ceremonies at the base occurred on August 11, 1943. As one of only four carrier pilot training facilities, Naval Auxiliary Air Station Brown Field was an important component of WWII.

By 1945, SDM's facilities included barracks, bachelor officer's quarters, mess hall, dispensary, assembly and repair shops, nose end hangars, storehouses, magazine area, athletic pavilion and facilities, recreation and ship's services, transmitter building, outdoor skeet range, and aircraft parking areas. These could accommodate 1,484 enlisted men and 156 officers. There were four concrete runways and a 30,000-square-yard concrete parking apron south of the runways.

The Navy decommissioned SDM as surplus in October 1946 and leased the facility to the County of San Diego (County) for possible development as a municipal airport. The County leased portions of the former base for agricultural purposes. In June 1947, some buildings were leased to Sweetwater Union High School District and occupied as a senior high school. In 1951, coinciding with the onset of the Korean War, SDM was recommissioned. In 1962, ownership was transferred to the City under the condition that the Airport would remain for the use and benefit of the public.

Given the historical significance of the Airport and its prominence in supporting wartime efforts, the Auxiliary Naval Air Station Brown Field was designated a historic district (District). The District encompasses approximately 2.5 acres within the southwest quarter of SDM. The District includes all nose end hangars in the western portion of SDM and the original ATCT (see Photo 1 on Figure 2-5),

which is part of the current terminal structure (Figure 2-10, *Auxiliary Naval Air Station Brown Field Historic District)*. The District is a City of San Diego Historic Landmark and is listed in the San Diego Register of Historical Resources (SDRHR). In addition, the District has also been found to be significant on the national and state level and thus eligible for listing on the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR).

An additional building located near the intersection of Curran Street and Continental Street (see Building HRB 410 on Figure 2-10) is considered historically significant locally but is not eligible for the NRHP.

2.5.5.2 Prehistoric and Historic Archaeological Resource Setting

The earliest well-documented sites in the San Diego area belong to the San Dieguito Tradition, dating to over 9,000 years ago. The San Dieguito Tradition is thought by most researchers to have an emphasis on big game hunting and coastal resources. Diagnostic material culture associated with the San Dieguito complex includes scrapers, scraper planes, choppers, large blades, and large projectile points.

The San Dieguito complex is followed by the Archaic Period, dating from at least 7,000 years ago. The local cultural manifestation of the Archaic period is called the La Jolla complex along the southern coastal region and brings a shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. Sites dating to the Archaic Period are numerous along the coast, near-coastal valleys, and around estuaries. The La Jolla complex tool assemblage is dominated by rough cobble tools, especially choppers and scrapers, but also includes manos and metates, biface points, and bone tools. Sites within the La Jolla complex typically include shell middens, terrestrial and marine mammal remains, beads, and flexed burials.

While there has been considerable debate about whether San Dieguito and La Jollan patterns might represent the same people using different environments and subsistence techniques, or whether they are separate cultural patterns, abrupt shifts in subsistence and new tool technologies occur at the onset of the Late Prehistoric Period, approximately 1,300-1,500 years ago. Within the City of San Diego, the Late Prehistoric period is represented by the Cuyamaca complex (Yuman forebears of the Kumeyaay) and is characterized by higher population densities and intensification of social, political, and technological systems. Elements of the Cuyamaca complex include small, pressure-flaked projectile points (Desert Side-notched and Cottonwood Triangular series); milling implements (manos, metates, mortars, and pestles); Tizon Brownware pottery; various cobble-based tools (e.g., scrapers, choppers, and hammerstones); arrow shaft straighteners; pendants; Olivella shell beads; and pictographs; and cremations. Subsistence is thought to be focused on the utilization of acorns and grass seeds, with small game serving as a primary protein resource and big game as a secondary resource. Fish and shellfish were also secondary resources, except immediately adjacent to the coast, where they assumed primary importance. The settlement system is characterized by seasonal villages where people used a central-based collecting subsistence strategy.

2.5.5.3 Tribal Cultural Resources Setting

The AMP area is within the traditional territory of the Kumeyaay people, also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcala). At the time of Spanish contact, Yuman-speaking Kumeyaay bands occupied southern San Diego, southwestern Imperial counties, and northern Baja



Source: Aerial (SanGIS 2017)

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Auxiliary Naval Air Station Brown Field Historic District

Figure 2-10

California. The Kumeyaay lived in semi-sedentary villages, or rancherias, with some rancherias containing more than one clan. Kumeyaay villages were located in river valleys with access to water and boulder outcrops and along the shoreline of coastal estuaries.

2.5.6 Human Health, Public Safety, and Hazardous Materials

Hazardous materials are substances with certain physical or chemical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed.

2.5.6.1 Types of Hazardous Chemicals and Exposure Pathways

Past and present land uses at the Airport and adjacent properties, including industrial, agricultural, and waste disposal, may have resulted in the release of hazardous chemicals into the environment. In addition, spills and leaks of fuel from locations where fuel was stored and dispensed could have affected the subsurface. Releases of hazardous substances along transportation corridors and deterioration of building materials that contained hazardous chemicals could also have affected the environment.

Past releases of these hazardous chemicals can leave residual contamination in soil, soil vapor, and groundwater within the AMP area. These chemicals are classified based on their properties, persistence in the environment, and general adverse effects, as described below.

Total Petroleum Hydrocarbons

Total petroleum hydrocarbons (TPH) is a term used to describe a large family of chemical compounds that originate from crude oil and are used to make petroleum and other industrial products. Benzene, toluene, ethylbenzene, naphthalene, and xylenes are part of the more volatile fractions of TPH (gasoline mixture) and polynuclear aromatic hydrocarbons (e.g., benzo(a)pyrene) are part of the less volatile fractions (diesel and heavier mixtures). Both groups, VOCs and fractions that are non-volatile, can have adverse health effects based on the type of chemical, routes of exposure (inhalation, direct contact, ingestion), and the mass of chemical available for exposure.

The most common pathways for exposure to the volatile fraction of TPH is inhalation, followed by direct contact (if the pathways of exposure are complete). The most common pathway of exposure to the non-volatile fractions of TPH is direct contact. The inhalation exposure pathway to the non-volatile fraction is incomplete (with the exception of TPH-impacted dust particles that can be inhaled in areas of soil disturbance).

Chlorinated Volatile Organic Compounds

Chlorinated volatile organic compounds (CVOCs) were commonly used for cleaning and degreasing and were associated with dry cleaning, manufacturing, and automobile maintenance at former military facilities. Some common CVOCs that can be found in the environment are tetrachloroethylene (PCE), trichloroethylene (TCE), and their breakdown products, such as cis-1,2-dichloroethane, trans- 1,2-dichloroethene, and vinyl chloride. Exposure to CVOCs can result in adverse health effects. CVOCs are generally more persistent and can remain in the environment

(soil, groundwater, soil vapor) for extended periods of time. CVOCs can migrate into indoor air from soil vapor and result in adverse health effects from inhalation exposure (USEPA 2012).

Lead

Lead is a heavy metal with multiple industrial and other applications. Exposed shallow soil may have been contaminated with aerially deposited lead (ADL) along well-traveled transportation road corridors, aircraft runways, and taxiways, and along the aircraft flight paths, prior to the phasing out of leaded gasoline in the late 1970s. The ADL is caused by historical emissions from vehicle and aircraft exhausts (tetraethyl lead was mixed with gasoline from the 1920s to the 1970s as an anti-knock agent).

Lead-based paint (LBP) can be found on structures built before 1978 (when it was banned in paint). Deteriorating LBP can contaminate shallow soil around the structures. Soil contaminated lead (e.g., from ADL and LBP), when disturbed, can become airborne in dust. Exposure to lead, either through direct contact, inhalation of dust containing lead, or through ingestion (can be a problem in younger children who may ingest deteriorating LBP or soil contaminated with lead) at significant concentrations can result in adverse health effects (lead is a known neurotoxin).

Other Metals

Metals can be found in manufacturing and industrial facilities and landfills (e.g., arsenic, chromium, mercury, and copper). Although metals can be naturally occurring, in higher concentrations they can be toxic to human health. If released to the environment in significant quantities, metals are more likely to be present in shallow soil. Exposure to metals in soil can occur through direct contact and inhalation of dust containing metals. Some chemicals used in industrial processes, such as hexavalent chromium, can contaminate groundwater and threaten drinking water sources.

Contaminants of Emerging Concern

Contaminants of emerging concern (CEC) include a wide array of potential pollutants, such as pharmaceuticals, personal care products, per-and polyfluoroalkyl substances (PFAS), surfactants, microorganisms, microplastics, and endocrine disrupting chemicals, among others. These unregulated contaminants can occur in wastewater, reused water, drinking water, or other matrices and there is often an incomplete understanding of the risk posed by these potential pollutants. Often CECs are difficult to measure and can be linked to many current and historic sources (USEPA 2024). Areas within the AMP area may contain CECs, especially where firefighting foams and suppressants have been used (firefighting training areas, aircraft or vehicle crashes, or other areas where fires occurred) or stored. Cases under regulatory oversight may not have been tested for CECs. CECs may be present in the subsurface and can be harmful to human health through ingestion, direct contact, and by inhalation.

Asbestos

Asbestos is a fibrous mineral that occurs naturally in rock and soil (USEPA 2023a). It has been used in a wide variety of building materials, such as insulation, roofing materials, and tiles. It has also been commonly used in automobile parts such as brakes and transmissions. Asbestos is likely present in structures within the AMP area and may be present in shallow soil near buildings and

near busy right-of-way corridors. The most common route of exposure is through inhalation of tiny particles of deteriorated (friable) asbestos containing materials (ACMs). Exposure to asbestos is harmful to human health.

Pesticides

Pesticides are chemicals used for agricultural purposes. Pesticides are commonly found in shallow soil in areas where agricultural use is or was historically present. Pesticides are potentially harmful to human health through direct contact, and through inhalation. According to historical reviews, the AMP area and adjacent properties have a history of agricultural use, and it is possible that residual pesticides remain in shallow soil in these areas. In addition, pesticides are currently used at the Airport to control vegetation growth in the runway and taxiway safety areas.

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) belong to a broad family of man-made organic chemicals and were manufactured from 1929 to 1979 (when manufacturing was banned). PCBs are chemically stable and have a high boiling point and electrical insulation and, because of these properties, were used in a wide range of industrial and commercial applications. PCBs were commonly used in electrical and hydraulic equipment, as a plasticizer in paints, plastics, and rubber manufacturing, and may be found in transformers and capacitors, electrical equipment, hydraulic systems, fluorescent light ballasts, cable installation, oil-based paint, plastics caulking, adhesives, and floor finishes (USEPA 2023b). Even though they are no longer manufactured, PCBs can be released into the environment from past applications, and from the disposal or storage of PCBs wastes. The USEPA, International Agency for Research on Cancer, and the National Toxicology Program have concluded that PCBs are a probable human carcinogen (USEPA 2023b). If released into the environment, PCBs are more likely to be in soil (relative to other media) and building materials and can be harmful to human health through ingestion and direct contact.

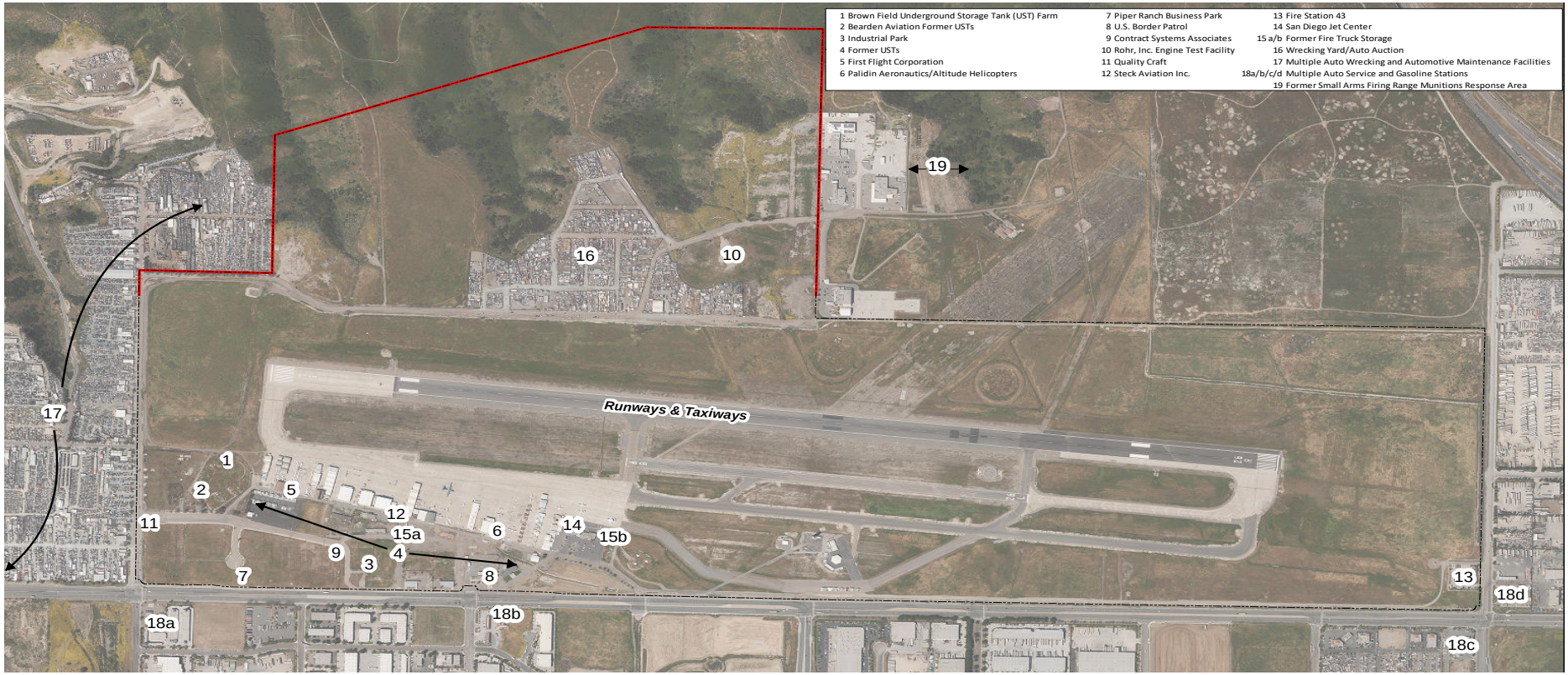
2.5.6.2 Hazardous Materials Sites

A search of federal, state, and local environmental regulatory agency databases was conducted to identify sites within the AMP area that may have been impacted by hazardous materials or wastes. Fourteen sites within the AMP area and three sites adjacent to the AMP area were found to be of potential environmental concern (Bodhi Group 2019). The sites are described below, and their locations are identified on Figure 2-11, *Areas of Potential Environmental Concern*.

On-site Properties of Potential Concern

Lancair Corp/City of San Diego – Brown Field Airport Underground Storage Tanks (1424 Continental Street)

The former underground storage tank (UST) farm is located on the southwestern portion of the site, north of Sikorsky Street and west of Fairchild Street. The former fuel farm is associated with six unauthorized release cases (H10618-016, -017, -018, -09, -022, and 023) relating to the removal of six USTs between 1990 and 1991. The cases have been consolidated into one (H10618-016). The USTs ranged in capacity from 25,000 gallons to 220,000 gallons and contained aviation gas and jet fuel. Between 1997 and 2013, twenty soil borings, twelve groundwater monitoring wells, and two



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Source: Bodhi Group 2019

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Areas of Potential Environmental Concern

Figure 2-11

extraction wells were installed to assess petroleum hydrocarbon impacts to soil and groundwater from a release discovered during the tank removals. Soil, groundwater, and soil vapor have been impacted from the release; however, the consultant for the case performed a soil vapor study and reported a human health risk for commercial use is not present and recommended groundwater remediation by natural attenuation. The case was closed by the Department of Environmental Health (DEH) in 2018 and the existing groundwater wells have been destroyed. The site address is also listed in the EDR Database Report for storage and disposal of oxygen, unspecified oil-containing waste, unspecified aqueous solution, waste oil, aviation fuel, propane, and diesel fuel. Violations on file were minor and not of environmental concern at this time. According to Geotracker and the EDR Database Report, additional USTs have been removed from various locations throughout the Airport property and are listed under the general Airport address (Geotracker 2019). The USTs were removed between 1989 and 1991 and are associated with multiple closed unauthorized release cases (H10618). The cases affected soil only and were closed in 2003. The majority of the former USTs were documented to be in the west portion of the site between Fairchild Street and Balchen Way, north of Otay Mesa Road. Impacted soil, soil vapor, and groundwater may be present in the areas of the former USTs.

First Flight Corporation (6810 Curran Street)

The site address is listed on the Aboveground Storage Tank (AST) database for the operation of ASTs containing aviation gas and jet fuel. The property was also listed on the EDR Database Report for the use and disposal of aviation gas, jet fuel, nitrogen, lubricating oils, solvents, gasoline additives, parts washer, unspecified oil containing waste, used batteries, used oil filters, waste oil, hydrocarbon solvents, and used oil filters. Violations were minor and not an environmental concern to the site at this time.

Paladin Aeronautics/HM Aeronautics (7060 Curran Street)

The site address is associated with four 10,000-gallon aviation fuel USTs that were reportedly closed in place and/or removed in 1992 and 1999. Unauthorized release cases associated with the tank removal are not on file. The property is also listed in the EDR Database Report for storage and disposal of inorganic solid waste and hydrocarbon solvents. Violations were minor and not of environmental concern at this time.

Bearden Aviation (1424 Continental Street)

The property is associated with one closed unauthorized release case (H10618-024). The case was opened in 1999 when two 10,000-gallon USTs containing jet fuel and aviation gas were removed from the former filling station in the west portion of the site. According to the DEH Closure Letter, soil impacted with TPH in the diesel range and TPH in the gasoline range remains in the area of the former tanks; however, the DEH Closure Report also states the results of a vapor study indicated no risk to human health and groundwater was likely not impacted. The case was closed in June 2012.

Industrial Park (1424 Continental Street)

The property is located north of Curran Street on the southwest portion of the site and is associated with one closed unauthorized release case (H10618-024). The case was opened in 1989 when a 12,000-gallon aviation gas and a 500-gallon waste oil UST were removed. According to the DEH

Closure Letter, the majority of impacted soil was removed. Remaining soil reportedly contains low concentrations of TPH and chromium; however, it was not anticipated to impact groundwater or human health and the case was closed in 2011 with land use restrictions. Land use changes require notification to regulatory agencies (DEH and RWQCB).

Piper Ranch Business Park (6464 Otay Mesa Road)

Three unauthorized release cases (H26521-001, -002, and -003) are on file for the former site address. According to the DEH Closure Letter, high levels of pesticides were detected at the property; however, they were not at levels to present a threat to human health and the case was closed in 1996. A 500-gallon gasoline UST was reportedly removed from the property in 1992 and impacted soil was excavated and disposed of off-site.

US Border Patrol/Brown Field (7060 Boeing Street/7020 Curran Street)

The US Border Patrol facility is located in the south-central portion of the site and is associated with one closed unauthorized release case (H21496-001) related to removal of a 10,000-gallon gasoline UST. The case was closed in 1987. The facility was also listed on the EDR Database Report for storage and disposal of aqueous solution, unspecified organic mixture, and metal sludge. Violations reported were minor and not of environmental concern at this time.

Contract Systems Associates (1352 Fairchild Street)

The site address is listed on the UST database for the operation of one 1,350-gallon diesel UST. A Hazardous Substance Storage Container Information Documents, dated 1988, is on file with the State Water Resources Control Board (SWRCB); however, documentation of UST removal was not found.

Rohr Inc., Engine Test Facility (1500 Heritage Road)

The property is located north of the Airport runways and has two closed unauthorized release cases (H19053-001, and -002). According to the EDR Database Report, the facility was an industrial property associated with aircraft parts. The unauthorized release cases were related to soil impacts only and were closed in 1988 and 1992. Documents on file with the DEH indicate five USTs (one 6,000-gallon, one 10,000-gallon, two 7,500-gallon, and two 12,000-gallon USTs were removed between 1986 and 1987 resulting in a release of jet fuel and the EDR Database Report indicates 16.85 tons of contaminated soil from a property clean-up was disposed of in 2002. The potential for soil containing fuel-related contaminants in the area of the former USTs exists.

Quality Craft (6710 Sikorsky Street)

The facility is listed in the HIST UST database for one 4,200-gallon diesel UST removed in 1986. An unauthorized release case was not found; however, the potential for residual soil contamination exists in the area of the former tank.

Steck Aviation Inc. (6949 Curran Street)

The facility is listed in the HIST UST database for removal of four USTs, ranging in capacity from 10,500 gallons to 12,500 gallons containing aviation fuel. An unauthorized release case was not found; however, the potential for residual soil contamination exists in the area of the former tanks.

Brown Field Sludge Storage Facility

According to the EDR Database Report, the facility is a Class III Solid Waste site and accepts only non-hazardous wastes. The Database Report states the facility represents a moderate threat to water quality. A specific site address is not listed, and the facility is not listed in the California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System database.

Fire Station 43 (1590 La Media Road)

The fire station is located in the southeast corner of the site and is listed in the EDR Database report for the removal of one 1,000-gallon UST in 2000 and storage and disposal of aged or surplus organics, diesel fuel, and medical waste. Violations were minor and not of environmental concern at this time. The potential for residual soil contamination in the area of the former UST exists.

R&B Auto Part Import and Export/Quik Auto Body Work/Proclub Auto Service/Don TJ Towing (7310 Pogo Row)

The site address is listed in the FINDS Database under multiple names. Unauthorized release cases are not on file for the facilities; however, the potential for undocumented or unreported releases from facility activities (scrapyard, auto body work, auto service) exist. Multiple Notice of Violations (NOVs) and inspection reports were on file with the DEH for the site address. Multiple NOVs were issued for expired Hazardous Material Permits and bookkeeping violations. Inspection reports indicated that the facilities stored oil, antifreeze, and used oil filters and documented minor violations including improper labeling.

Off-site Properties of Potential Concern

INS Former Brown Field Firing Range/U.S. Border Patrol Pistol Range/Brown Field NAAS (1481 Heritage Road)

The property is located adjacent to the east of the north portion of the site and is a former small-arms firing range. The property is associated with two closed unauthorized release cases on Geotracker (H37776001 and 2093900) and one active case on Envirostor (60001020). The databases indicate lead and heavy metals and PAHS have impacted shallow soil. Envirostor records indicate the small arms range was operational between 1944 and 1987 and the canyons in the area may contain PAH concentrations at levels unacceptable to human health. According to the RWQCB Closure Letter, approximately 11 acres of impacted soil were removed. The Geotracker cases were closed by the RWQCB in 2004 and administratively closed by the DEH in 2012. One case remains active on Envirostor and states remediation of impacted soil by excavation and disposal in the canyon area was scheduled for 2018; however, a review of available documents indicates the soil removal has not occurred at the time of this report. Land Use Controls are currently in place for the property.

Multiple Auto Wrecking and Automotive Maintenance and Sales Facilities (981, 1502, 1510, 1522, 1524, 1530, and 1560 Heritage Road, and 6801 Sikorsky Street)

Multiple auto mechanics, scrapyards, and automobile maintenance facilities are located adjacent to the west and northwest of the site. The facilities are listed on the EDR Database Report for storage and disposal of oxygen, lubricating oil, propane, contaminated soil, waste oil, diesel, hydrocarbon solvents, and used batteries. Multiple NOVs were on file for the property addresses relating to hazardous waste storage. Although unauthorized releases are not on file for the properties, the potential for release into the subsurface that may migrate to the site exists.

Multiple Auto Service and Gasoline Stations (1599 La Media Road, 8395 Otay Mesa Road, 1625 Heritage Road)

Gasoline service stations are located adjacent to the southwest and southeast corners of the site. The Gasoline stations are listed on the UST Database; however, are not associated with any unauthorized release cases at the time of this report. The potential exists for undetected or unreported releases of fuel constituents into the subsurface that may impact soil, soil vapor, or groundwater at the site.

2.5.6.3 Wildfire Hazards

California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards in the County through its Fire and Resource Assessment Program. These maps place areas of the County into different Fire Hazard Severity Zones based on fuels, terrain, weather, and other relevant factors. The zones are divided into three levels of fire hazard severity in State Responsibility Areas (SRA): Moderate, High, and Very High. Most of the AMP area is mapped as a Very High Fire Hazard Severity Zone (VHFHSZ).

2.5.6.4 Emergency Preparedness

The City is a participating jurisdiction in the San Diego County Multi-Jurisdictional Hazard Mitigation Plan (MHMP), a countywide plan to identify risks and minimize damage from natural and man-made disasters (County 2023). The primary purposes of the MHMP include efforts to: enhance public awareness and understanding; create a decision tool for management; promote compliance with state and federal program requirements; enhance local policies for hazard mitigation capability; provide inter-jurisdictional coordination of mitigation-related programming; and achieve regulatory compliance.

Additionally, the City is a participating agency in the County's Unified San Diego County Emergency Services Organization and County of San Diego Operational Area Emergency Operations Plan (EOP; County 2022. The EOP is used by partner agencies within the County to respond to major emergencies and disasters.

2.5.6.5 Aircraft Hazards

The state of California requires that the San Diego County Regional Airport Authority, as the ALUC, prepare an 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, overflight, safety, and airspace protection concerns to minimize the public's exposure to excessive noise and safety hazards within the airport influence area (AIA) for each airport over a 20-year horizon. The City of San Diego implements the adopted ALUCPs with the Airport Land Use Compatibility Overlay Zone. Review Areas 1 and 2 for Brown Field Municipal Airport are shown on Figure 2-12, *SDM Review Areas*. Projects located within the AIAs are reviewed for consistency with the ALUCPs.

2.5.7 Hydrology and Water Quality

2.5.7.1 Drainage

Impervious areas are generally associated with the developed southern portion of the AMP area, as well as the runways and taxiways in the central portion of the area. Whereas storm water in the northern portion of the AMP area can be retained on-site due to the presence of pervious soils and vegetation, storm water in the developed southern portion of the AMP area turns to runoff, which is then conveyed off-site via paved surfaces, gutters, and storm drains.

Receiving waters from runoff within the AMP area include the Otay River, Tijuana River, and ultimately the Pacific Ocean. Otay Mesa is characterized by flat terrain cut by canyons that drain either north to the Otay River or south to the Tijuana River. The Otay River flows from the San Miguel Mountains to the west through Upper and Lower Otay reservoirs and empties into the San Diego Bay. The Otay River floodplain is located north of the AMP area. Several major canyons, such as O'Neal, Johnson, and Dennery, drain into the Otay River. Moody Canyon and Spring Canyon serve as the major drainage system into the Tijuana River to the southwest. The Tijuana River flows mainly through Mexico, crosses the border into the City of San Diego, and empties into the Pacific Ocean in an estuary in the City of Imperial Beach.

2.5.7.2 Floodplains

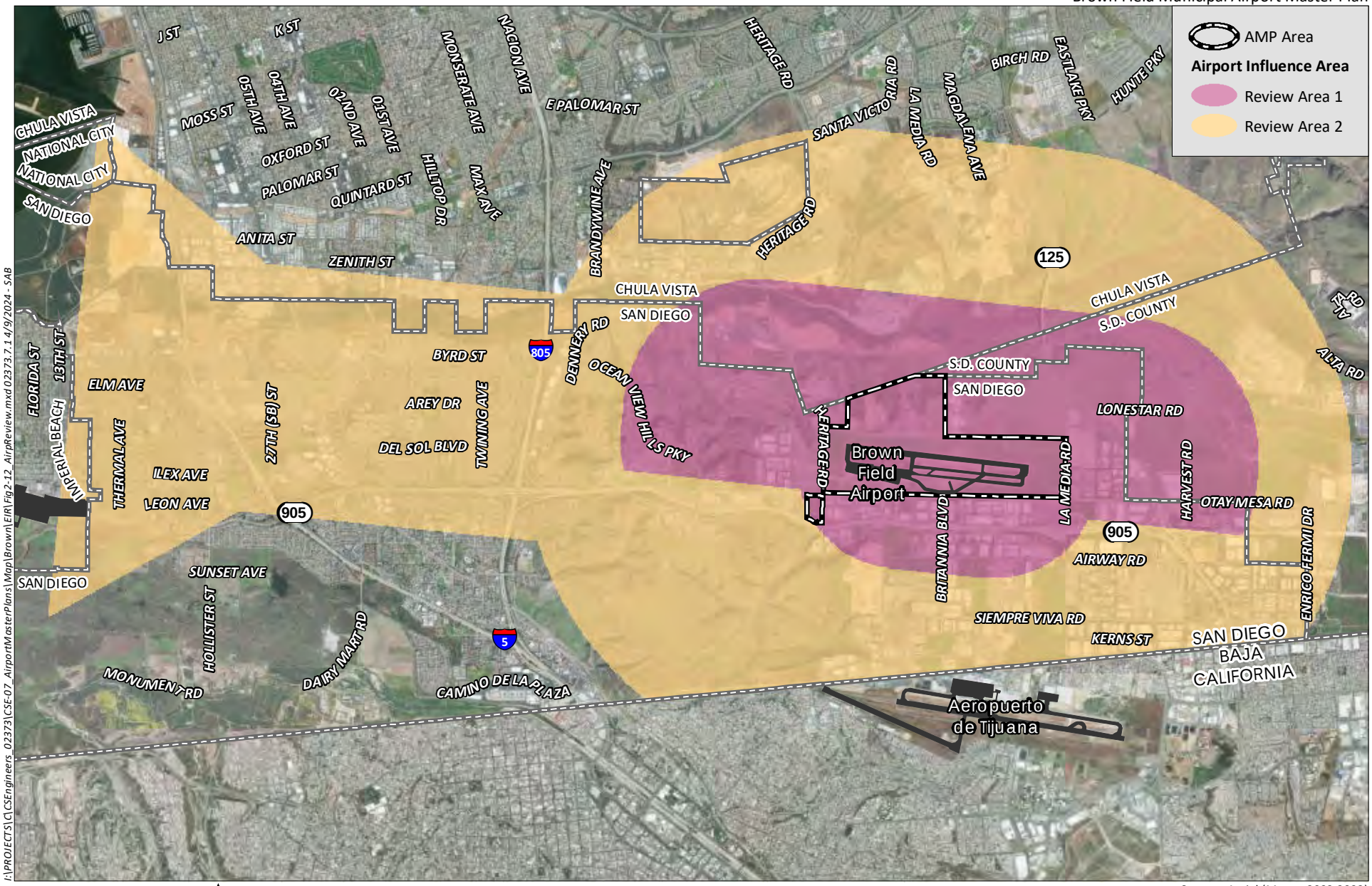
Based on mapping from the Federal Emergency Management Agency (FEMA), the AMP area is within Zone X, which is determined to be an area of minimal flood hazards (FEMA 2019). The nearest floodplains are associated with the Otay River to the north and Johnson Canyon Creek to the east.

2.5.7.3 Water Quality

Whereas storm water in the northern portion of the AMP area can be retained on-site due to the presence of pervious soils and vegetation, storm water in the developed southern portion of the AMP area turns to runoff, which is then conveyed off-site via paved surfaces, gutters, and storm drains. Thus, pollutants in runoff may reach receiving waters. Typical pollutants from existing uses within Otay Mesa include sediment, nutrients, heavy metals, organic compounds, trash and debris, oxygen demanding substances, oil and grease, bacteria and viruses, and pesticides.

Beneficial Uses

Beneficial uses are the uses of water necessary for the survival or wellbeing of humans, plants, and wildlife. These water uses serve to promote the tangible and intangible economic, social, and environmental goals of humankind. The Water Quality Control Plan for the San Diego Basin (Basin



0 6,000 Feet

Source: Aerial (Maxar, 2022,2023)

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HELIX Environmental Planning

SDM Review Areas

Figure 2-12

Plan) prepared by the RWQCB identifies beneficial uses for inland surface waters, coastal waters, reservoirs and lakes, and ground waters.

Otay River

Existing beneficial uses identified for the Otay River include Agricultural Supply (AGR), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), and Rare, Threatened, or Endangered Species (RARE).

Tijuana River

Existing beneficial uses identified for the Tijuana River include Non-contact Water Recreation (REC-2), Preservation of Biological Habitats of Special Significance (BIOL), WARM, WILD, and RARE.

Pacific Ocean

Existing beneficial uses identified for the Pacific Ocean include Industrial Service Supply (IND), Navigation (NAV), REC-1, REC-2, Commercial and Sport Fishing (COMM), BIOL, WILD, RARE, Marine Habitat (MAR), Aquaculture (AQUA), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), and Shellfish Harvesting (SHELL).

Clean Water Act Section 303(d) Impaired Water Bodies and Total Maximum Daily Loads

Under Section 303(d) of the Clean Water Act, states, territories, and authorized tribes are required to develop a list of water quality limited segments. Waters on the list do not meet water quality standards even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires the establishment of priority rankings for water on the lists and develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality. The San Diego RWQCB is responsible for developing the 303(d) list in the San Diego region.

According to the 2010 State Impaired Water Bodies 303(d) List of Water Quality Limited Segments, the Otay River's receiving body, San Diego Bay, is listed as an impaired water body for PCBs. The Tijuana River is listed as an impaired water body for eutrophic, indicator bacteria, low dissolved oxygen, pesticides, phosphorus, sedimentation/siltation, selenium, surfactants, solids, synthetic organics, total nitrogen, toxicity, trace elements, and trash.

2.5.7.4 Groundwater

Groundwater is defined as subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated. Groundwater bearing formations sufficiently permeable to transmit and yield substantial quantities of water are called aquifers. A groundwater basin is defined as a hydrogeologic unit containing one large aquifer or several connected and interrelated aquifers. The principal groundwater basins in the San Diego region are relatively small in area and usually shallow. Although these groundwater basins are limited in size, the groundwater yield from the basins has been historically important to the development of the region. Nearly all of the local groundwater basins have been intensively developed for municipal and agricultural supply purposes. Near surface groundwater (less than 20 feet deep) is unlikely to occur in the geologic formations found along the top of Otay Mesa.

2.5.8 Land Use

2.5.8.1 Existing Surrounding Land Uses

Community of Otay Mesa

The AMP is within the community of Otay Mesa, which encompasses approximately 9,300 acres at the southern limit of the City. The community is bordered by the San Ysidro and Otay Mesa-Nestor communities to the west, the City of Chula Vista and the Otay Valley Regional Park to the north, the County of San Diego to the east, and the United States-Mexico international border and the City of Tijuana to the south. Otay Mesa's extensive canyon systems in the western portion of the Plan area account for 28 percent of the total community acreage and result in Open Space comprising the largest single land use. Due to the community's role as a transnational employment center, industrial land uses occupy approximately 30 percent of the total community acreage. Other uses include commercial, residential, mixed-use, schools, parking lots, recreation and open space, and transportation facilities. Existing land uses within Otay Mesa are summarized in Table 2-17, *Existing Land Uses within Otay Mesa Community*.

Table 2-17
EXISTING LAND USES WITHIN OTAY MESA COMMUNITY

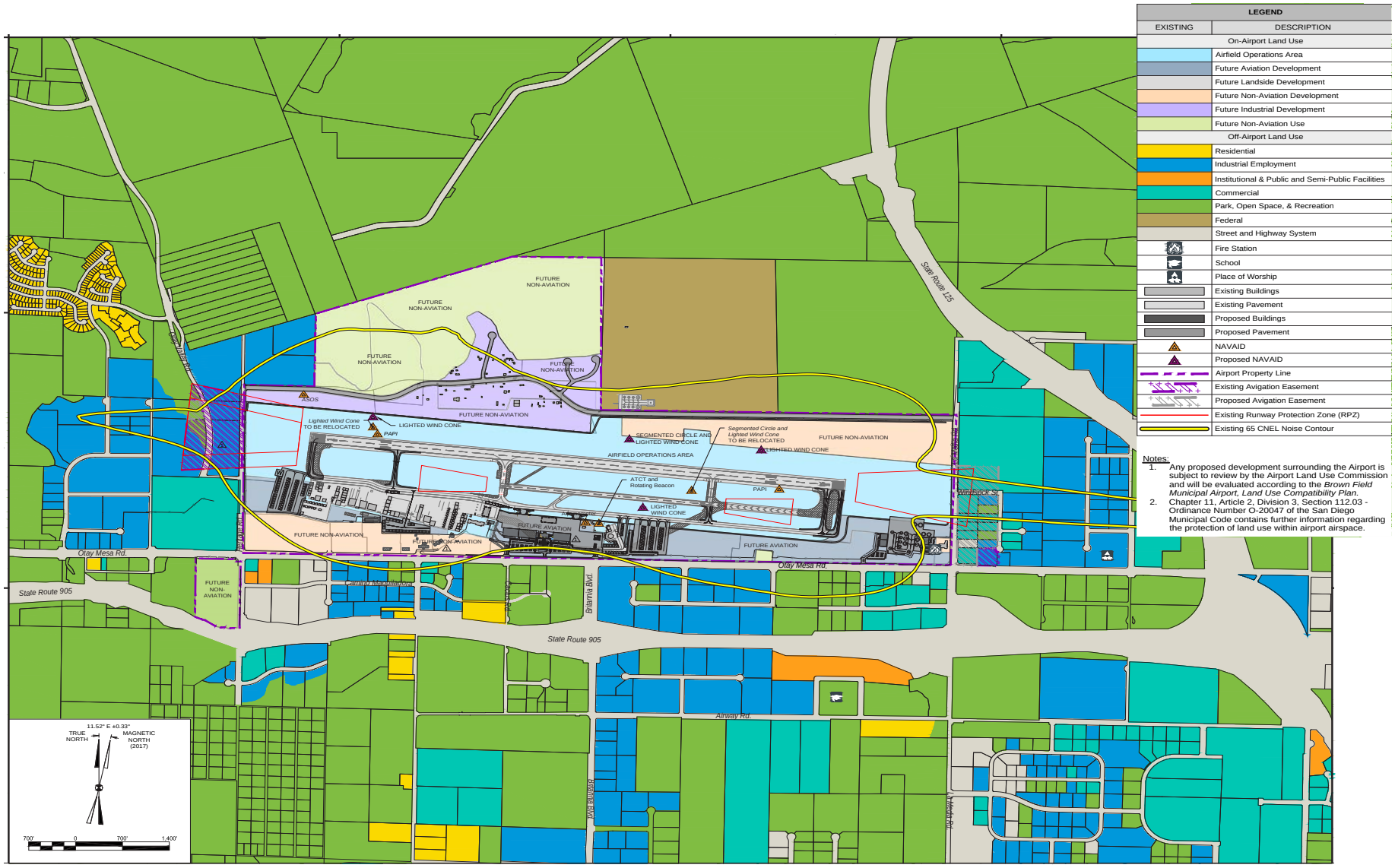
Land Use	Land Area (acres)	Percentage of Land Area
Open Space	2,565	28%
Residential	1,270	14%
Commercial	453	5%
Industrial	2,839	30%
Institutional	1,023	11%
Parks	53	.05%
Right-of-Way	1,099	12%
Total	**9,302**	**100%**

NOTE: Numbers may not sum due to rounding.

Existing land uses immediately surrounding the AMP area include industrial/business park to the west, open space and industrial to the north, industrial and commercial to the east, and a mix of industrial/business park and commercial to the south along Otay Mesa Road, as shown in Figure 2-13, *Surrounding Land Uses*.

Otay Mesa Community Plan

The OMCP is a component of the Land Use Element of the City's General Plan. It encompasses a broad range of the land use designations defined in the General Plan, supplemented with a more detailed description and distribution of land uses for Otay Mesa. As a sub-regional employment area, with the vision of providing a balanced community that respects the sensitive resources and provides workforce housing near employment opportunities, the OMCP land use designations include residential with a variety of density ranges, village centers, commercial, industrial, open spaces, parks, and institutional.



Source: C&S Engineers 2024

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Surrounding Land Uses

Figure 2-13

2.5.9 Noise

2.5.9.1 Noise and Sound Level Descriptors and Terminology

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

Noise level or sound level values presented in this PEIR are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ}, with a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. This is similar to the Day Night sound level (L_{DN}), which is a 24-hour average with an added 10 dBA weighting on the same nighttime hours, but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on dBA. These metrics are used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver contribute to the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. A logarithmic scale is used to describe sound pressure level (SPL) in terms of dBA units. The threshold of hearing for the human ear is approximately 0 dBA, which corresponds to 20 micro-Pascals (μPa).

Because dB are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions.

2.5.9.2 Vibration Descriptors and Terminology

Vibration is defined as any oscillatory motion induced in a structure or mechanical device as a direct result of some type of input excitation. Sources of ground-borne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or manufactured (explosions, trains, machinery, traffic, construction equipment, etc.). Vibration sources may be

transient, steady-state (continuous), or pseudo steady-state. Examples of transient construction vibrations are those that occur from blasting with explosives, impact pile driving, demolition, and wrecking balls.

Ambient and source vibration information are expressed in terms of the peak particle velocity (PPV) in inches per second (in/sec). The root mean square (RMS) of a signal is the average of the squared amplitude of the signal in dB (relative to 1 micro-inch per second). Because the net average of a vibration signal is zero, the RMS amplitude is used to describe the "smoothed" vibration amplitude. The RMS amplitude is always less than the PPV and is always positive. The RMS average is typically calculated over a one-second period.

The background vibration velocity level in residential areas is usually 50 vibration dB (VdB) or lower; this is well below the level perceptible by humans, which is approximately 65 VdB. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

2.5.9.3 Existing Noise Environment

The primary existing noise generators within and adjacent to the AMP area include aircraft operations at SDM and vehicles traveling on nearby roadways (I-805, SR 125, Otay Mesa Road, Heritage Road, and La Media Road).

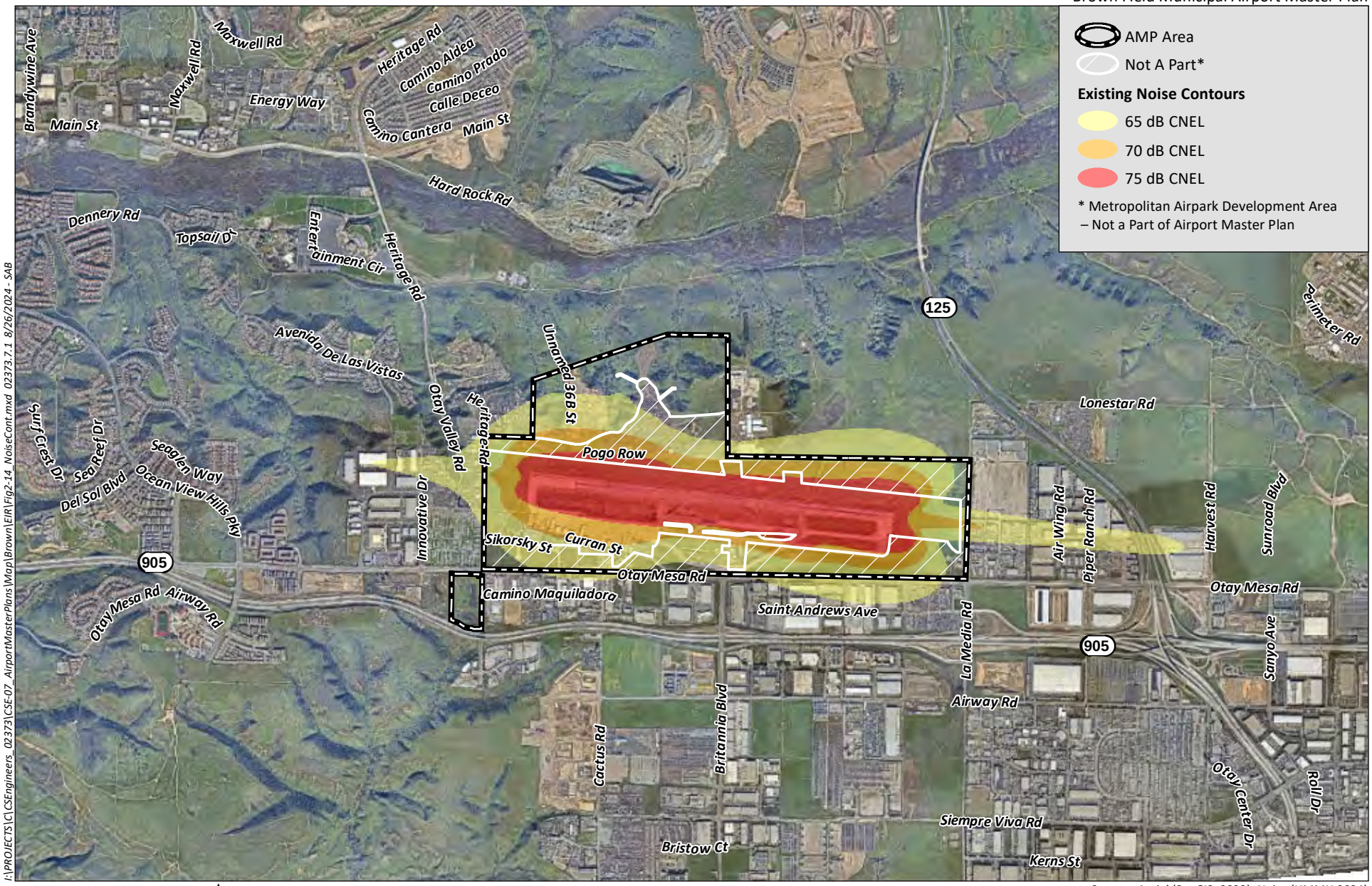
The existing noise contours associated with SDM are shown on Figure 2-14, *Existing Brown Field Municipal Airport Noise Contours.* The 70 CNEL and 75 CNEL contours are generally confined to the AMP area. The 65 CNEL contour extends outside of the AMP area boundary to the northwest and northeast past Pogo Row, to the west past Innovative Drive, to the south past Otay Mesa Road, and to the east past SR 125.

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise. The most common noise-sensitive uses include residences, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, childcare facilities, and certain types of passive recreational parks and open space. Existing NSLUs near the AMP area include residences 0.3 mile to the northwest across Otay Valley Road. Industrial and commercial land uses are generally not considered to be sensitive to noise.

2.5.10 Public Services

2.5.10.1 Police Protection

The San Diego Police Department (SDPD) provides police services, including patrol, traffic, investigative, records, laboratory, and support services to the City (City 2008a). The AMP area is currently patrolled by the Southern Division of the SDPD. The Southern Division serves communities of Tijuana River Valley, San Ysidro, Otay Mesa, Border, Egger Highlands, Nestor, Otay Mesa West, Palm City, and Ocean Crest. The Southern Division office is located at 1120 27th Street.



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Source: Aerial (SanGIS, 2023), Noise (HMMH 2024)

HELIX Environmental Planning

Existing Brown Field Municipal Airport Noise Contours

Figure 2-14

2.5.10.2 Fire Protection

Fire protection services to the AMP area are provided by the SDFD. The SDFD serves a total area of approximately 343 square miles, including 17 miles of coastline extending three miles offshore, and a population of approximately 1.42 million people. The SDFD has a current total of 52 fire stations and nine permanent lifeguard stations, and employs 892 uniformed personnel, 98 lifeguards, and 246 civilian personnel. In addition to fire protection services, the SDFD also provides emergency medical services (EMS).

Fire Station 43 is located on the eastern end of SDM at 1590 La Media Road, and currently serves the eastern portion of the Otay Mesa Plan area. However, Fire Station 43 cannot always provide adequate emergency response times throughout the remainder of the Otay Mesa area. Therefore, fire protection services are also provided by Fire Station 6, located in the adjacent community planning area of Otay Mesa-Nestor.
In 2017, the City retained Citygate Associates, LLC to perform a Standards of Response Cover Review (Citygate 2017) to review the adequacy of the current fire station resource deployment system and the emergency incident outcomes desired by the community. This study concluded that additional fire-rescue resources are needed to meet best practice outcome response times for all neighborhoods. For effective outcomes on serious medical emergencies and to keep serious, but still emerging, fires small, the City's adopted Fire-Rescue response time policy is that the first-due fire unit should arrive within 7 minutes and 30 seconds of fire dispatch, 90 percent of the time. Fire-Rescue's actual performance from fire dispatch call receipt to first crew on scene is 8 minutes and 10 seconds to 90 percent of fire and emergency medical services incidents. Only seven fire stations meet the 90 percent best practice goal of 7 minutes and 30 seconds from fire dispatch to first unit on scene. The average response time for Station 43 is 11 minutes and 36 seconds (Citygate 2017).

Fire-Rescue does not meet the City's goals for dispatch and crew turnout time. The issue with response times is the travel time from too few fire stations across an increasingly traffic-congested road network. Fire-Rescue is not meeting the City's adopted goal of five minutes travel time for the first arriving unit. The Citywide actual performance is 6 minutes and 9 seconds from crew notification. Only four fire stations meet the five-minute travel time goal. The average travel time for Station 43 is 9 minutes and 19 seconds (Citygate 2017).

These results are reflective of the large size of some station areas, simultaneous calls for service, road network design, and traffic congestion issues. Fire-Rescue is staffed for several serious building fires at a time and multiple medical calls for service at a time. The regional automatic and mutual aid response system delivers greater alarm and multiple incident support.

The City's EMS also has ambulances, paramedics, and EMTs who respond to emergency calls. There are four levels of calls. Level 1 is the most serious (e.g., heart attack, shortness of breath), and the closest fire engine and an advanced life support ambulance respond to this type of call. The fire crew must respond within eight minutes of being dispatched pursuant to City requirements, and the ambulance has to respond within 12 minutes for Level 1 (the most serious) calls. A Level 2 call is the next most serious; however, these calls are either reprioritized up to a Level 1 call or down to a Level 3 call. Only the advance life support ambulance responds to Level 2 calls; no fire station staff, or equipment are deployed. The response time for a Level 2 call is 12 minutes, the same as for a Level 1 call. For a Level 3 call (e.g., someone having extended flu-like symptoms), either a basic or

advance life support ambulance would respond. A basic ambulance is staffed with two EMTs, whereas an advance life support ambulance is staffed with one paramedic and one EMT. The response time for a Level 3 call is 18 minutes. For a Level 4 call, which is not an emergency (e.g., the patient could have driven themselves to a hospital), a basic ambulance would respond within 18 minutes of being dispatched.

2.5.11 Public Utilities

The AMP area is served by a variety of public facilities and services, including utilities such as water and sewer, and solid waste services. Many of the infrastructure needs for these services are managed through the City's Capital Improvements Program (CIP). The City conducts a biannual review of public services, facilities, and utilities implementation in conjunction with the budget/CIP review cycle. As part of this review process, the City assesses the need for new or expanded services and public facilities to provide appropriate services and infrastructure commensurate with population increase.

Public utilities include public water, sewer, storm water, and solid waste collection and recycling that are available to serve the AMP area. A description of the existing conditions of each of these public utilities is provided below.

2.5.11.1 Water Supply

City of San Diego

The City's Public Utilities Department (PUD) provides water services to 1.4 million customers through a water system that serves over 404 square miles comprised of land within the City, including the AMP area, as well as several communities outside the City. The City's PUD imports 85 to 90 percent of its water from other areas such as northern California and the Colorado River. To do this, the PUD purchases imported water from the San Diego County Water Authority (SDCWA). The SDCWA was formed for the purpose of purchasing Colorado River water from The Metropolitan Water District of Southern California (MWD) for conveyance to San Diego County.

The City's water system consists of a large network of infrastructure connecting residents and businesses to the water supply. The City's water system includes nine surface raw water storage reservoirs, three water treatment plants, 29 potable water storage facilities, approximately 3,300 miles of water transmission and distribution pipelines, and 49 water pump stations. The City runs three water treatment operations—Otay Water Treatment Plant, Alvarado Water Treatment Plant, and Miramar Water Treatment Plant—with a total of 298 million gallons per day capacity.

The City also runs two recycled water facilities. The North City and South Bay Water Reclamation Plants were built to treat wastewater to a level that would be approved for non-potable uses such as landscape irrigation and manufacturing. These facilities provide water to City residents and businesses, as well as other jurisdictions and water districts. Potable reuse through the Pure Water San Diego Program is currently under development.

Established in 1985, the PUD's Water Conservation Program was established to reduce San Diego's dependence on imported water. Savings are achieved through the implementation of programs, policies, and ordinances promoting water conservation practices. All residential, commercial, and

industrial buildings are required to be certified as having water-conserving plumbing fixtures in accordance with San Diego Municipal Code Chapter 14, Article 7, Division 4. The PUD works in collaboration with the MWD and the SDCWA to formulate new conservation initiatives, and annually checks progress toward conservation goals.

The City's 2020 Urban Water Management Plan (UWMP) was developed to serve as the City's overarching water resources planning document to address the City's water system, water demand, water supply resources, conservation efforts, and historic and projected water use. This Plan was prepared in accordance with the Urban Water Management Act, requiring urban water suppliers to adopt and submit a plan every five years to the California Department of Water Resources. Every urban water supplier providing water for municipal purposes to more than 3,000 connections or supplying more than 3,000 acre-feet (AF) of water annually must comply.

The PUD also adopted a Long-Range Water Resources Plan in 2013, which was most recently updated in 2019. This Plan provides guidance and input on alternative strategies for meeting San Diego's water needs by addressing concerns such as population growth and water resource diversification. The Plan details existing water supplies, new water supply opportunities, objectives, performance measures, and conclusions and recommendations.

In accordance with the Conservation Element of the City's General Plan (Policy CE-A.11), development projects are required to implement sustainable landscape design and to use recycled water to the maximum extent feasible in development projects to aid in water conservation (City 2008a).

The Metropolitan Water District of Southern California

The MWD was formed in 1928 to develop, store, and distribute supplemental water in Southern California for domestic and municipal purposes. The MWD is a wholesale supplier of water to its member agencies, which includes the SDCWA. It obtains supplies from local sources as well as the Colorado River via the Colorado River Aqueducts, which it owns and operates. It also obtains water supplies via the Sacramento-San Joaquin Delta via the State Water Project. Planning documents such as the Regional Urban Water Management Plan (RUWMP) and Integrated Water Resources Plan (IWRP) help to ensure the reliability of water supplies and the infrastructure necessary to provide water to Southern California.

MWD's IWRP was updated in 2015 to accommodate recent changes in retail demands, water use efficiency, and local and imported supplies, and to update resource targets. The IWRP sets reliability targets to identify developments in imported and local water supply and in water conservation to reduce water shortages and mandatory restrictions. These regional targets are set for conservation, local supplies, State Water Project supplies, Colorado River supplies, groundwater banking, and water transfers. MWD's 2015 RUWMP, adopted in June 2016, documents the availability of these existing supplies and additional supplies required to meet future demands. It includes the resource targets in the IWRP and contains an assessment of water supply reliability. The Long-Term Conservation Plan was implemented in July 2011 with the goal to achieve the conservation target in MWD's 2010 IWRP as well as to pursue water efficiency innovations and to transform the public's perception of the value of the regional water supply.

San Diego County Water Authority

The SDCWA is an independent public agency that serves as the County's regional water wholesaler. As a retail member agency of the SDCWA, the PUD purchases water from the SDCWA for retail distribution within its service area.

The SDCWA's 2020 UWMP was adopted by the SDCWA Board in May 2021 in accordance with state law and the RUWMP. The 2020 Plan contains a water supply reliability assessment that identifies a diverse mix of imported and local supplies necessary to meet demands over the next 25 years in average, single-dry year, and multiple-dry year periods. The UWMP documents that no shortages are anticipated during a normal year, single dry-year, or multiple dry-year through 2045. The SDCWA also prepares an annual water supply report providing updated documentation on existing and projected water supplies.

2.5.11.2 Water, Sewer, and Storm Water Infrastructure

Water Distribution System

The City's PUD supplies potable water to the AMP area via the Shepherd Canyon Pipeline, which is fed by the SDCWA's Second Aqueduct. Water from the Second Aqueduct is treated at both the City's Miramar Water Treatment Plant and the City's Alvarado Water Treatment Plant.

Wastewater Collection System

The City's PUD provides wastewater collection, treatment, reclamation, and disposal services to the San Diego region, including the AMP area, through its Metropolitan Sewerage System. The Metropolitan Sewerage Sub-System treats the wastewater from the City of San Diego and 15 other cities and districts from a 450-square-mile area with a population of over 2.2 million. The system treats an average of 180 million gallons of wastewater each day. Sewage collected is conveyed and processed through a sewer infrastructure system and ultimately discharged at the Point Loma Wastewater Treatment Plant.

In general, all wastewater generated in the AMP area is conveyed southwesterly towards the North Metro Interceptor, where it continues through to the Point Loma Water Treatment Plant.

Storm Water Conveyance System

As discussed in Section 2.3.8, storm water runoff originating in the developed southern portion of the AMP area is conveyed to receiving waters via paved areas, gutters, and storm drains. The AMP area has a relatively flat topography and ranges in elevation from approximately 480 to 520 msl. The AMP area is located along a high point on the Otay Mesa. As a result, the ultimate direction and discharge location of storm water drainage from the AMP area varies based on which section of the site is considered. The northwestern portion of the site drains northerly into the various tributaries along canyons located at the northern margin of the Otay Mesa. These drainages are tributary to the Otay River, which drains into San Diego Bay and the Pacific Ocean. The southwestern portion of the AMP area conveys runoff towards the southwest corner of the site, near the intersection of Otay Mesa Road and Heritage Road. From there, runoff is conveyed into Spring Canyon. These areas are located in the Tijuana Hydrologic Unit, which drains into the Tijuana River. During sufficiently high

flows, storm water drains into the Tijuana River, which drains to the Pacific Ocean just north of the international border. The Tijuana River is intermittent and flows across the U.S./Mexico border into California, approximately three miles southwest of the AMP area.

2.5.11.3 Solid Waste Management

Solid waste generated in the AMP area is collected by private franchised haulers and taken to one of three active landfills permitted to accept solid waste: Otay Landfill, West Miramar Sanitary Landfill (Miramar Landfill), and Sycamore Sanitary Landfill (Sycamore Landfill). Otay Landfill is located within an unincorporated area within the City of Chula Vista.

Per Assembly Bill (AB) 341, 75 percent of waste must be diverted from disposal in landfills. Of the remaining 25 percent of residuals requiring disposal, 15 years of disposal capacity is the target. West Miramar Landfill is permitted to receive 8,000 tons per day and, on average, it receives less than 1,000,000 tons per year. The anticipated closure date for West Miramar Landfill is 2031. Sycamore Landfill is permitted to receive a maximum of 5,000 tons per day and is expected to operate until 2042. Otay Landfill is permitted to receive 6,700 tons per day and is expected to serve the region through 2030 (CalRecycle 2024).

2.5.12 Visual Effects and Neighborhood Character

2.5.12.1 Visual Character and Resources

The visual character of the Airport area is that of a moderately-developed landscape, interspersed with open space. To the east, west, and south is a mix of commercial, industrial, and open space land use. North of the Airport, there is also Industrial and Open Space, as well as a block of Military use. Residential use encroaches off the northwest end of the Airport. To the far east, Otay Mountain, part of the San Ysidro Mountains, rises to an elevation of 3,566 feet and is a major scenic vista for the region.

The OMCP identifies seven view corridors in the vicinity of the Airport, three to the south, including a “gateway” at the entrance of the Airport and one in the southeast and southwest corners of the Airport perimeter, and four view corridors to the north to northwest associated with the Open Space south of the Otay River. Policy 4.12-4 of the Community Plan states, “Locate viewpoints to the Otay River Valley within the Brown Field redevelopment area north of Aviator Road.” There are no designated state scenic highways within the view shed of the area.

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3.0 PROJECT DESCRIPTION

3.1 Local Planning Context

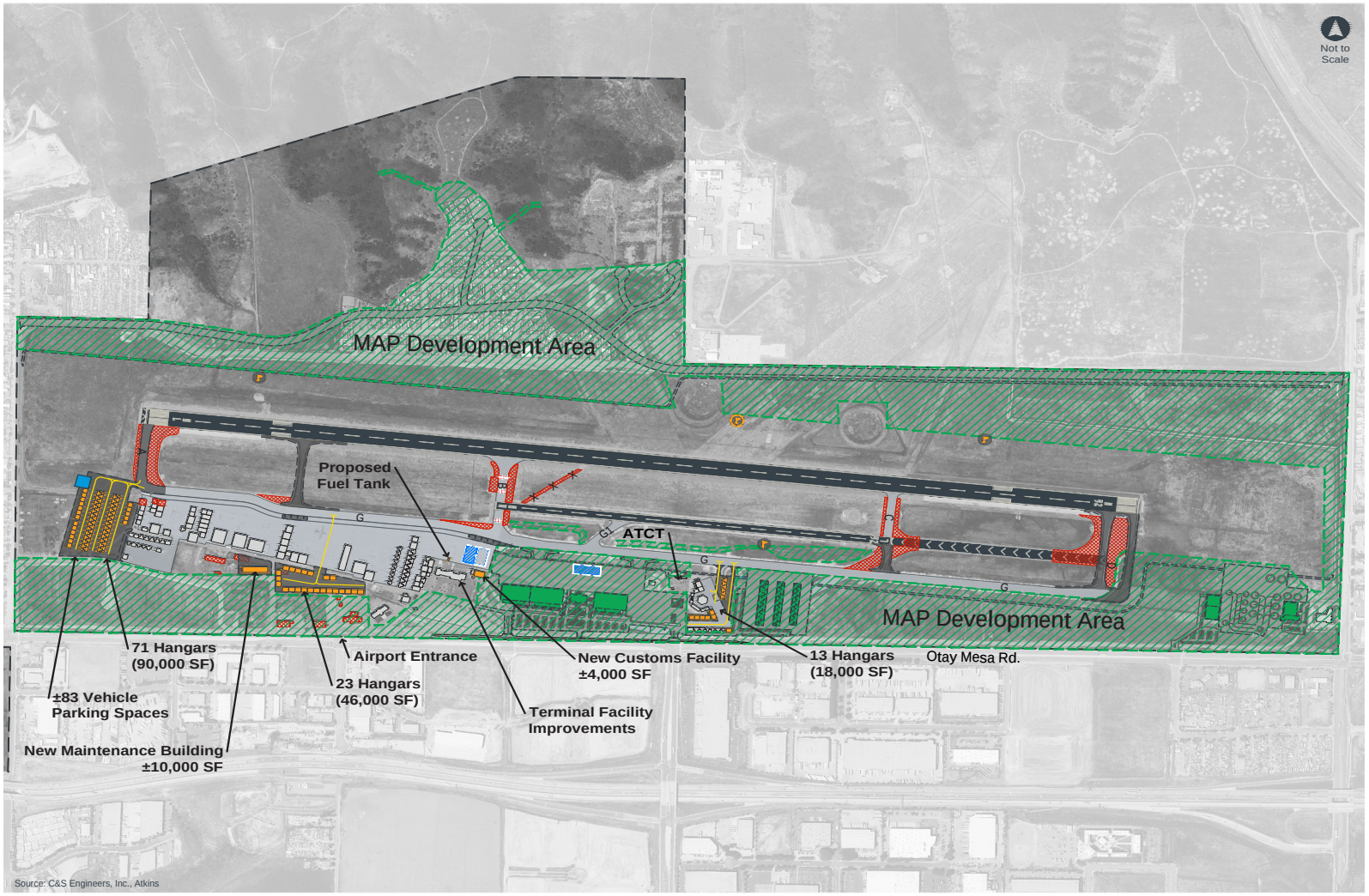
The City Airports Division owns and operates SDM as a general aviation airport located within the Otay Mesa community. The Airport is bound by Otay Mesa Road to the south, Heritage Road to the west, La Media Road to the east, and open space to the north see Figures 2-1 and 2-2 of this PEIR).

Airport planning occurs at the national, state, regional, and local levels, with the goal of the master planning process to guide planning practices at the local level. SDM is included in the National Plan of Integrated Airport Systems (NPIAS), which identifies airports that are significant to the national air transportation system and, therefore, eligible for grant funding under the FAA's Airport Improvement Program (AIP). In administering funding, the FAA uses the NPIAS, which supports the FAA's strategic goals for safety, system efficiency, and environmental compatibility by identifying the specific airport improvements that will contribute to achievement of those goals.

The SDCRAA developed the Regional Aviation Strategic Plan (RASP) to take a comprehensive look at the civilian airports in the San Diego County region. The RASP explored a scenario that proposed to preserve San Diego International Airport's Lindberg Field's capacity for commercial passenger service by making improvements and accommodating general aviation traffic at SDM, Montgomery-Gibbs Executive Airport, and Gillespie Field Airport. In 2021, the SDCRAA published the RASP Implementation Report, which documents the region's collective progress in implementing the RASP and its continued compatibility with the San Diego Association of Government's (SANDAG's) regional transportation planning efforts.

An AMP presents the community and airport's vision for a 20-year strategic development plan based on the forecast of activity. It is used as a decision-making tool and is intended to complement other local and regional plans. In 2017, the City began developing an update to the AMP for SDM to determine the extent, type, and schedule of development needed based on current projections. The AMP is comprised of six sections, including: Section 1, Inventory, Surveys, & Data Collection; Section 2, Forecast; Section 3, Facility Requirements; Section 4, Environmental Overview; Section 5, Alternatives; and Section 6, Economic Impact Analysis (C&S Engineers 2019). The AMP also includes an Airport Layout Plan (ALP), which graphically depicts all planned development at the Airport within the 20-year planning period as determined in the AMP. This drawing requires approval by the FAA, which makes the Airport eligible to receive federal funding for airport improvements and maintenance under the FAA's AIP.

The conceptual plan selected by the Airports Advisory Committee to implement the AMP is shown graphically on Figure 3-1, *Proposed Airport Plan*. This plan is also referred to as the Preferred Alternative within the AMP. For the purposes of the analysis within this PEIR, this plan is also referred to as the project. Figure 3-2, *Proposed Airport Layout Plan,* graphically depicts all planned development at the Airport within the 20-year planning period (through 2037) as determined in the AMP.



SD Airports

Brown Field Municipal Airport Master Plan

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Pavement
- MAP Development Area
- Proposed MAP Buildings
- Proposed Demolition
- Proposed Taxiway/Taxilane Centerline
- Proposed Wash Rack
- Existing Customs Box
- Proposed Customs Box Expansion
- Proposed Segmented Circl
- Proposed Wind Cone
- Proposed "No-Taxi" Island

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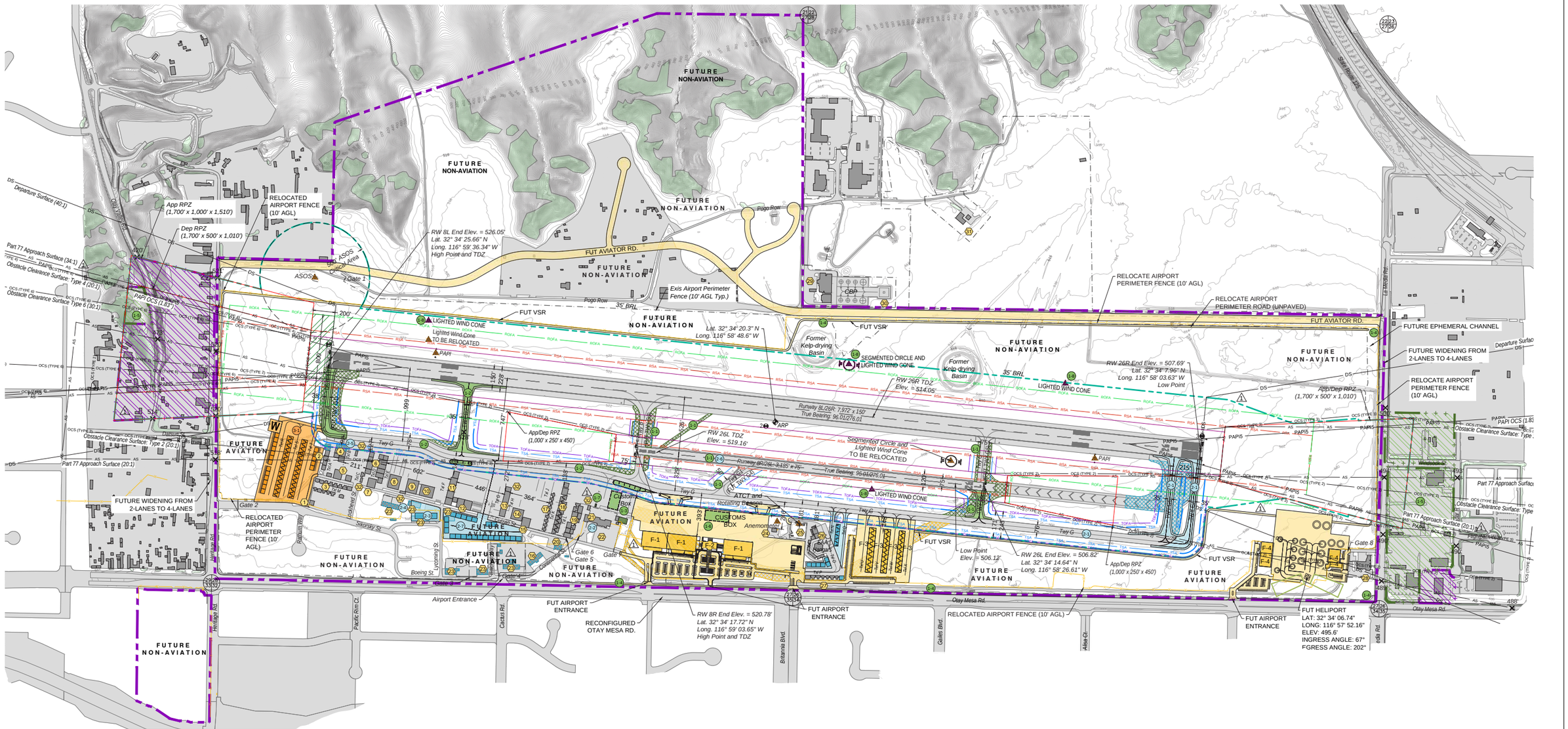
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Source: C&S Companies 2025

HELIX Environmental Planning

Proposed Airport Plan

Figure 3-1


FUTURE NON-AVIATION
FUTURE AVIATION
FUT AVIATOR RD.
RELOCATED AIRPORT FENCE (10' AGL)
App RPZ (1,700' x 1,000' x 1,510')
Dep RPZ (1,700' x 500' x 1,010')
RW 8L End Elev. = 526.05'
Lat. 32° 34' 25.66" N
Long. 116° 59' 36.34" W
High Point and TDZ
Exis Airport Perimeter Fence (10' AGL Typ.)
RELOCATE AIRPORT PERIMETER FENCE (10' AGL)
RELOCATE AIRPORT PERIMETER ROAD (UNPAVED)
FUTURE EPHEMERAL CHANNEL
FUTURE WIDENING FROM 2-LANES TO 4-LANES
RELOCATE AIRPORT PERIMETER FENCE (10' AGL)
FUT VSR
LIGHTED WIND CONE
Lighted Wind Cone TO BE RELOCATED
SEGMENTED CIRCLE AND LIGHTED WIND CONE
Former Kelp-drying Basin
RW 26R TDZ Elev. = 514.05'
RW 26R End Elev. = 507.69'
Lat. 32° 34' 7.96" N
Long. 116° 58' 03.63" W
Low Point
App/Dep RPZ (1,700' x 500' x 1,010')
Runway 8L/26R: 7,972' x 150'
True Bearing: 96.01/276.01
RW 26L TDZ Elev. = 519.16'
Runway 8R/26L: 3,185' x 75'
Segmented Circle and Lighted Wind Cone TO BE RELOCATED
App/Dep RPZ (1,000' x 250' x 450')
ATCT and Rotating Beacon
CUSTOMS BOX
Anemometer
RW 8R End Elev. = 520.78'
Lat. 32° 34' 17.72" N
Long. 116° 59' 03.65" W
High Point and TDZ
RW 26L End Elev. = 506.82'
Lat. 32° 34' 14.64" N
Long. 116° 58' 26.61" W
Low Point Elev. = 506.12'
RELOCATED AIRPORT FENCE (10' AGL)
FUT AIRPORT ENTRANCE
RECONFIGURED OTAY MESA RD.
Airport Entrance
FUT HELIPORT
LAT: 32° 34' 06.74"
LONG: 116° 57' 52.16"
ELEV: 495.6'
INGRESS ANGLE: 67°
FGRESS ANGLE: 202°
Gate 1
Gate 2
Gate 3
Gate 4
Gate 5
Gate 6
Gate 7
Gate 8
Otay Mesa Rd.
Heritage Rd.
Pacific Rim Ct.
Caleras Rd.
Britannia Blvd.
Galileo Blvd.
Alisa Ct.
Siempre Viva Rd.
La Media Rd.
State Route 905
Part 77 Approach Surface (34:1)
Obstacle Clearance Surface: Type 4 (20:1)
Obstacle Clearance Surface Type 6 (30:1)
Obstacle Clearance Surface: Type 2 (20:1)
Part 77 Approach Surface (20:1)
PAPI OCS (1.83°)
PAPI OCS (1.83°)
Departure Surface (40:1)
Departure Surface (20:1)
ASOS
ASOS Critical Area
CBP
Customs Box
F-1
F-2
F-3
F-4
6A Hangars
Twy G
Twy F
Twy E
Twy A
Twy A1
Twy A2
Twy A3
Twy A4
Twy A5
Twy A6
Twy A7
Twy A8
Twy A9
Twy A10
Twy A11
Twy A12
Twy A13
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Twy A17
Twy A18
Twy A19
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Twy

3.2 Facilities Needs Assessment

The 20-year planning period for the AMP begins with the base year of 2017 and extends through 2037. Development needs are broken down into short-term (1 to 5 years), mid-term (6 to 10 years), and long-term (11 to 20 years). Short-term planning is focused on addressing immediate deficiencies, mid-term planning focuses on a more detailed assessment of needs, and long-term planning primarily focuses on the ultimate role and needs of the Airport. The facilities needs assessment, included in Section 3, Facility Requirements, of the AMP, is in part an examination of the Airport's current capacity, current deficiencies, needed improvements, and forecasted future needs.

3.2.1 Facility Capacity

3.2.1.1 Airside Capacity

Calculations based on formulas devised by the FAA are used to understand the current capacity of infrastructure, such as runways, taxiways, and IAPs. These values are compared to baseline and forecasted demand to determine the need for future capacity-enhancing infrastructure such as additional runways or taxiway exits. Airside capacity is a measure of the number of aircraft that can operate at an airport in a given timeframe. Capacity is most often expressed in hourly or annual measures.

The major components to be considered when determining an airport's capacity include runway orientation and configuration, runway length, and runway exit locations. Additionally, the capacity of any given airfield system is affected by operational characteristics such as fleet mix, climatology, and IAPs.

Based upon the FAA guidance and formula for calculating capacity, SDM currently has adequate runway and taxiway capacity and does not have a need for capacity enhancing runway and taxiway projects within the 2017 to 2037 planning horizon and thus, improvements that enhance the capacity of the runway or taxiways are not included as part of the AMP. However, as discussed in Section 3.2.2, *Facility Deficiencies*, there are current airside facility safety and configuration concerns that need to be addressed. Additionally, Section 3.2.3, *Facility Demand Forecasts*, provides a foundation for planning for the future airside needs and the recommended airside components during the 20-year planning period.

3.2.1.2 Landside Capacity

As discussed in detail below in Sections 3.2.2 and 3.2.3, the SDM landside facilities have adequate capacity to meet the baseline demand, yet some of these facilities are outdated (such as the terminal building) and do not operate efficiently. Moreover, some facilities, such as hangar and apron area space, as presently configured, would not meet the forecasted demands for the 20-year planning period.

3.2.2 Facility Deficiencies

As discussed above, runway and taxiway capacity have been determined to sufficiently meet the baseline and forecasted demand; however, there are airside and landside deficiencies at SDM. These deficiencies are primarily a function of increased use or changes in baseline or forecasted use patterns, and FAA regulations and design standards. These deficiencies are discussed in detail below. The subsequent proposed improvements are also discussed in Section 3.4, *Master Plan Components*, of this chapter.

3.2.2.1 Airside Deficiencies

Full Length Parallel Taxiway

Neither runway on the SDM airfield currently has a dedicated full-length parallel taxiway. As Runway 8L/26R is the primary runway due to its length and width, unrestricted runway exits are only available at the runway ends. All other taxiway connectors require crossing Runway 8R/26L to access or exit the primary runway. This configuration can reduce capacity due to the necessary pausing before crossing Runway 8R/26L or due to the additional taxi time to access or exit the primary Runway 8L/26R at the runway ends.

Taxiway Fillets

A taxiway fillet is the extra wide area provided along a curved taxiway path so that the aircraft rear wheel does not extend off the edge of the pavement. The fillets at taxiway/runway and taxiway/ taxiway intersections at SDM do not meet the current FAA design standard.

Taxiway Holding Bay Requirements

Holding bays can replace bypass taxiways to increase the capacity at an airport. These bays are designed to hold waiting aircraft and prevent them from inhibiting the traffic flow on taxiways. Ideally, hold bays are located at the runway ends directly off the respective taxiways. The general design of holding bays includes assured wingtip clearance of established critical aircraft and proper markings to guide pilots safely into run up positions. Markings should be labeled to have a specified area where aircraft can turn within the holding bays so they do not line up nose-to-tail with other aircraft. This allows for aircraft to easily enter and exit the holding bay without interfering with other aircraft in the same holding bay.

At SDM, there are currently four holding bays. The first two hold bays are located on Taxiway B between the Runway 8R threshold and Runway 8L/26R. The third holding bay is located on the west side of Taxiway C between the Runway 26L threshold and Runway 8L/26R. The fourth holding bay is located on Taxiway G, adjacent to the Runway 26R threshold. All four of the existing holding bays at SDM have deficiencies including lack of markings, likely insufficient taxiway wingtip clearance, insufficient depth, and insufficient safety area clearance.

Airfield Pavement

An airfield pavement condition analysis was conducted as part of the Pavement Maintenance Management Plan completed for SDM in February 2019. The analysis includes classifications for

airfield pavement using the industry standard Pavement Condition Index (PCI) metric. Pavement sections are inspected for distress type and severity. Pavement is then classified using its PCI in categories of good, fair, or poor. The following runway, taxiway, and apron areas were classified as having a poor PCI:

- Portions of Runway 8L/26R and Runway 8R/26L.
- Taxiway G from the Runway 26R end run-up area extending down and around to Taxiway C.
- Taxiway G starting from the intersection at Taxiway B extending until Taxiway B begins its turn towards the Runway 8L end.
- All apron sections from the five conventional hangars that mark the midpoint of the apron area to the east where the apron pavement finishes.
- All apron run-up areas located directly off the taxiway pavement at their respective runway ends.

3.2.2.2 Landside Deficiencies

Terminal Building

During the onsite inventory of the existing terminal building, observations concluded that the structure is old, outdated, and contains environmental concerns that conflict with the general maintenance of the facility. Besides the known environmental concerns such as lead paint, hazardous materials in the ceiling and floors, pest infestation, cracks in the foundation, and the administrative offices and conference rooms are inadequate in size to handle the day-to-day operations by SDM personnel.

City Equipment and Maintenance Building

City staff occupies several small structures located in various locations on the airfield for equipment, supplies, and maintenance activity; the combined total space of these facilities equates to approximately 3,200 SF. Airport management indicates that additional equipment would be helpful for daily operations and although the current storage space is adequate, having multiple locations on the airfield is inefficient and inconvenient compared with having one consolidated space for these services.

Perimeter and Security Fencing

The primary function of airport fencing is to restrict inadvertent and intentional unauthorized entry to the Airport by individuals or wildlife. The current fencing at SDM varies in age, height, and condition in several locations. To provide better protection, it is recommended that the fencing in all areas be eight feet in height, with three strands of barbed wire at the top of perimeter fencing that does not abut the Multi-Habitat Planning Area (MHPA). Breaches to the fencing by coyotes is a known problem at SDM. Some wildlife fencing exists in certain locations, but more may be needed in other areas currently not protected.

3.2.3 Facility Demand Forecasts

Historical aviation activity forecasts and planning documents were reviewed to evaluate forecasting trends and methodologies and to develop projections for future activity at SDM. Among the documents reviewed were the FAA Terminal Area Forecast (TAF), FAA Air Traffic Activity Data System (ATADS), and a variety of reports and studies that track aviation industry trends. In addition, local community plans were reviewed to understand potential socioeconomic factors that can affect airport planning. Presented below is a summary of the forecasts prepared for the AMP.

3.2.3.1 Aircraft Projections

Table 3-1, *SDM Aircraft Operation Demand Forecast Summary*, provides data for both the baseline (2017) and forecasted number of aircraft based at SDM and the number of annual operations. An airport's operation count includes the total number of take-offs and landings for a 12-month period, providing an overall picture of airport use.

Table 3-1
SDM AIRCRAFT OPERATION DEMAND FORECAST SUMMARY

	2017 (Baseline)	2022	2027	2032	2037
Based Aircraft	226	242	259	277	296
Annual Operations	85,840	86,141	86,443	86,746	87,050

Source: C&S Engineers, Inc. 2019 (Table 2.14)

The aviation demand forecast can be broken down further by aircraft category. Aircraft categories are defined as a grouping of aircraft types that have similar characteristics. These categories include single-engine propeller, multi-engine propeller, turboprop, jet, military, and rotorcraft (helicopters). Each aircraft category was evaluated to determine specific growth rates over the 20-year planning period. The rates were based on a review of historical trends at SDM, conversations with airport management and tenants, and forecasting trends provided by the FAA Aerospace Forecast. Table 3-2, *Estimated Future Fleet Mix Growth Rates*, lists the growth rate anticipated by aircraft category.

Table 3-2
ESTIMATED FUTURE FLEET MIX GROWTH RATES

Fleet Mix Aircraft Type	Annual Growth Rate
Single Engine	-0.9%
Multi-Engine	-0.5%
Turboprop	1.4%
Jet	2.3%
Military	-
Rotorcraft	1.6%

Source: C&S Engineers, Inc. 2019 (Table 2.13)

3.2.3.2 Hangars

Aircraft operation demand and fleet mix forecasts affect landside operations, since these numbers provide a basis for planning facilities to house and service aircraft and other support needs. A hangar demand forecast was prepared for SDM and is presented in Table 3-3, *SDM Hangar Demand Summary*.

Table 3-3
SDM HANGAR DEMAND SUMMARY

	2017 (Baseline)	Estimate of Hangar Area Needed			
		2022	2027	2032	2037
Conventional/ Box Hangar[1] (SF)	130,000[1]	53,400	55,800	58,200	63,200
T-hangar/Single-aircraft Box Hangar (SF)	105,000	155,400	165,200	177,800	190,400
Total Hangar Area (SF)	**235,000**	**208,800**	**221,000**	**236,000**	**253,600**

Source: City of San Diego Airports Division, 2017, C&S Engineers, Inc. 2019 (Table 3.20)
[1] Includes only single-aircraft box hangars.
SF=square feet

The results of the hangar demand analysis provided in Table 3-3 above indicate that SDM has sufficient conventional box hangar storage space available for the 20-year planning period but lacks adequate T-hangar storage space.

3.2.3.3 Apron Parking

Additionally, aircraft that are not stored in a hangar are parked in apron areas. Table 3-4, *SDM Apron Area Demand Summary*, provides a summary of the forecasted demand for apron areas.

Table 3-4
SDM APRON AREA DEMAND SUMMARY

	2017 (Baseline)[1]	Estimate of Apron Area Needed (SY)			
		2022	2027	2032	2037
Itinerant Aircraft Apron (SY)	13,500	11,200	11,200	11,200	11,600
Local Based Aircraft Apron (SY)	36,500	20,100	21,600	23,400	24,900
Total Apron (SY)	**50,000**	**31,300**	**32,800**	**34,600**	**36,500**

Source: City of San Diego Airports Division, C&S Engineers, Inc. 2019 (Table 3.21)
[1] Existing apron areas were measured using aerial imagery and are approximate.
SY=square yard

Based on the apron area demand forecast, the existing apron space for local-based and transient (itinerant) aircraft is adequate to accommodate the 20-year planning period. However, the analysis did not consider the U.S. Customs aircraft parking apron. According to SDM, the existing 1,800 SY of aircraft parking apron designated for U.S. Customs services is currently not large enough to handle the parking demand during peak activity. Often, aircraft waiting to be cleared by U.S. Customs must wait on nearby taxiways and/or other portions of the airfield far removed from the designated area.

This creates issues with the airfield capacity and efficiency and poses potential safety and security risks to the airfield. To resolve this issue, the existing apron should be either reconfigured to include more parking space by absorbing more of the adjacent itinerant apron in the short-term, or construction of the additional apron area be proposed in the long-term. The latter ultimately depends on whether U.S. Customs' operations remain in the same location over the course of the planning period. Ultimately, the need for apron space depends on demand, particularly for transient aircraft.

3.2.3.4 Terminal Building

The methodology used to determine the terminal building facility requirements for general aviation airports is based on the number of airport users anticipated to use the facility during the design hour operations. The design hour is defined as the peak hour of an average day of the peak month. The design hour can be used to determine the number of passengers and pilots departing or arriving on an aircraft in an elapsed hour of a typical busy day (design day). Furthermore, conventional planning practices use a factor of 2.5 people (passengers and pilots) per peak-hour (design hour) and an area of 100 to 150 SF of space per person to determine the building size requirements to accommodate the peak-hour traffic. Due to SDM's size and current activity, 100 SF of space was used. See Table 3-5, *General Aviation Terminal Building Space Requirements*. Although the results of the terminal space analysis indicate that the overall existing size of the facility is adequate over the 20-year planning period, the analysis does not consider the existing condition of the facility (see Section 3.2.2.2 for existing deficiencies in the condition of the building).

Table 3-5
GENERAL AVIATION TERMINAL BUILDING SPACE REQUIREMENTS

Year	Design Hour Operations	Peak-Hour Pilot & Passengers	Existing Facility Size (SF)	Terminal Size Required (SF)
2017	46	115	12,600	11,500
2022	47	118	12,600	11,800
2027	47	118	12,600	11,800
2032	47	118	12,600	11,800
2037	47	118	12,600	11,800

Source: C&S Engineers, Inc. 2019 (Table 3.22).
SF=square feet

3.2.3.5 Other Support Facilities

In addition to the major landside facility components, hangars, apron areas, and the terminal building, several other support facilities are forecasted to require improvements to provide sufficient capacity to meet the needs of these facilities. Due to the age of most of the utilities serving SDM (over 50 years old), it is recommended that a general facility study be performed to gauge the Airport's current systems. Other landside facilities, such as the ATCT access circulation network and parking, were examined in the facilities demand forecast and determined to be adequate to support future demands as forecasted in the AMP. Lastly, while SDM is not required to provide aircraft rescue and firefighting services per 14 CFR Part 139 Airport Certification, it is recommended that the

City continue to work with Local Fire Station 43 to provide these services throughout the planning period.

3.3 Master Plan Objectives

The following specific objectives for the proposed AMP support the purpose of the project, to assist the City as lead agency in developing a reasonable range of alternatives to evaluate in this PEIR, and, if necessary, will ultimately aid the lead agency in preparing findings and overriding considerations. The primary goals, recommendations, and objectives of the AMP are as follows:

- Implement safety improvements necessary to bring the airport into compliance with FAA regulations and design criteria.
- Adapt to the transformational changes that have occurred in the aviation industry to ensure alignment with current federal regulations, design standards, fleet mix, aircraft operational characteristics, and airport land use policies.
- Accommodate regional demand for hangar, tie-down, and terminal building space utilizing a phased implementation schedule for the proposed improvements.
- Maintain a balance between the airport users and the surrounding community while encouraging airport business growth and opportunities.
- Preserve natural and historic resources within airport lands.

3.4 Master Plan Components

As shown on Figure 3-1, the AMP would involve both landside and airside components. Some of these components are in direct response to existing needs, as discussed in Section 3.2.2, *Facility Deficiencies*, and some of the components, as discussed in Section 3.2.3, *Facilities Demand Forecast*, are in response to airport facility planning that has provided a framework to forecast the facility needs for the 20-year planning horizon.

The area covered by the AMP is 551 acres and consists of the approximately 880-acre SDM property, excluding the approximately 329 acres that are being leased to the private developers of the MAP, a project which was reviewed previously in a separate EIR (SCH No. 2010071054) and is not part of the scope of this PEIR.

The airside and landside components are discussed in greater detail in Sections 3.4.1 and 3.4.2 of this PEIR.

3.4.1 Airside Components

3.4.1.1 Taxiway Reconfigurations

The following improvements are recommended to bring components in compliance with FAA requirements.

Taxiway B

Taxiway B has pavement on either side of it which cannot be used by aircraft because they would encroach into the Taxiway Object Free Area (TOFA). As shown on Figure 3-1, the extra pavement on both the east and west sides of Taxiway B would be demolished. In addition, the closed taxiway adjacent to Taxiway B will be demolished because it is deteriorating, causing a potential foreign object debris (FOD) issue for the main runway.

Taxiway C

Taxiway C is an acute angled taxiway, located between the 26L threshold and Taxiway G, which provides access to the Runway 26L threshold. Portions of the FAA's inadvisable acute angled Taxiway C would be demolished to reconfigure it to 90 degrees.

Taxiway D

Taxiway D currently provides a wide expanse of pavement, which is discouraged by the FAA. A portion of the pavement at Taxiway D would be demolished and additional pavement installed to dual entrance taxiways to Runway 26R. The dual taxiways would allow for aircraft to safely run-up and bypass one another.

Taxiway G

The proposed airfield pavement at old Taxiway C, which provides additional access to Taxiway G near the Experimental Aircraft Association (EAA) leasehold, would be removed. The proposed landside development at EAA provides a second point of airside access to Taxiway G.

3.4.2 Landside Components

3.4.2.1 Terminal Building

As described earlier, the size of the existing terminal building (12,600 SF) is adequate to serve the projected needs of the Airport. However, due to the age of the building, there are a number of configurations and other environmental issues for the existing building. Based on City input and the understanding of the current conditions of the terminal building, instead of a terminal building expansion, the preferred alternative in the AMP proposed the replacement of the terminal building with a larger (approximately 14,000 SF) terminal building in the same location, and the original ATCT would be relocated. However, the terminal building, including the original ATCT, have been evaluated for their historic potential as described in Section 5.5 of this PEIR. The study concluded that the integrity of the Auxiliary Naval Air Station Brown Field Historic District and the terminal building (Building 2002) as a contributor to the District are intact and all resources remain eligible for listing in the SDRHR, the CRHR, and the NRHP. As a result, instead of demolishing the terminal building and moving the ATCT, the currently proposed project is to be a rehabilitation of the existing building, as defined by the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties, for use and forecasted demand. All proposed rehabilitation work for the terminal building will need to comply with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties.

3.4.2.2 Hangar Sites

The AMP proposes the construction of up to 107 hangars to accommodate future demand over the 20-year planning period. This includes 13 T-hangars (18,000 SF) near the EAA leasehold, 23 hangars (46,000 SF) near the new maintenance building, as well as 71 hangars (90,000 SF) on the western end of the airfield. However, the hangars would not be developed until there is sufficient demand, and net demand may be affected by how fast the MAP project (not part of the AMP) is built out.

3.4.2.3 Maintenance Facilities

Currently, a number of small structures house equipment and supplies across the airfield, as described in Section 3.2.2.2. The proposed plan includes the consolidation of these facilities into one 10,000-SF centralized maintenance building to be constructed west of the terminal building and east of the western hangar site, as shown on Figure 3-1. The existing structures housing equipment and supplies, as well as other vacant buildings across the airfield, would be demolished as part of the consolidation.

3.4.2.4 Support Structures and Facilities

A location for a new wash rack has been identified at the western end of the airfield, near the proposed western hangar location. Similarly, a location for a new fuel tank has been identified near the terminal building. In addition, various utility and fencing improvements around the airfield are proposed.

3.4.2.5 Access, Circulation, and Parking

Currently, primary access to the airfield is via Otay Mesa Road to Continental Street, which provides direct access to the terminal, the parking lots to the north and south of the terminal building, and the hangars and accessory structures west of the terminal building. Continental Street also provides access to the operating ATCT and the EAA leasehold to the east of the terminal, south of Taxiway G (Figure 3-2). As part of the MAP project, a new airfield entrance is proposed from Otay Mesa Road, south of the EAA leasehold. The new entrance would serve the EAA leasehold as well as the ATCT. The AMP would propose to provide approximately 83 vehicle parking spaces adjacent to the western hangar site (see Figure 3-1).

3.4.3 Components Excluded from the Master Plan

As denoted by the green hatch on Figure 3-1, a large portion of the airfield's 880 acres are being leased to the private developers of the MAP and are not a part of the AMP. These areas include most of the areas directly adjacent to Otay Mesa Road, as well as to the north of Runway 8L/26R. These areas are subject to a separate EIR and would be unaffected by the proposed AMP. Any future projects that may be proposed within the green-hatched areas would be subject to EIR (SCH No. 2010071054) or required to complete their own CEQA review as needed.

In addition, the new customs facility within airport property has received a CEQA exemption and is not a part of the AMP to be examined in this PEIR.

3.5 Master Plan Phasing

The individual improvements proposed over the 20-year planning horizon of the AMP are broken down into 5-year increments. These are detailed in Table 3-6, *SDM Airport Master Plan Phasing*, and Figure 3-2 and are more generally described as follows:

- **Phase I Near-Term (0-5 years)** generally involves runway improvements and rehabilitation, Taxiway G improvements, and the proposed fuel tank.

- **Phase II Mid-Term (6-10 years)** is the period when the maintenance building and 23 hangars would be constructed, and the terminal building would be rehabilitated. Taxiway D would be reconfigured, and the new connector would be constructed. Lastly, there would be improvements within the EAA leasehold (including 13 hangars) as well as the demolition of several hangars and abandoned buildings near Taxiway G and along Otay Mesa Road.

- **Phase III Long-Term (11-20 years)** is when the hangar area at the western portion of the airfield, near Runway 8L, would be developed with up to 71 new T-hangars and approximately 83 vehicle parking stalls. Lastly, the proposed wash racks would be constructed.

Table 3-6
SDM AIRPORT MASTER PLAN PHASING

Task #	Improvement Projects
Phase I Near-Term 0 - 5 Years	
1-1	Runway 8R/26L and Associated Projects
1-2	Taxiway G West End Improvements and New Taxiway
1-3	Construct New Customs Border Protection Facility and Transient Ramp Improvements[1]
1-4	Fencing Improvements
1-5	Avigation Easements for Runway 8L/26R Runway Protection Zones[2]
1-6	CBP Customs Box Expansion
1-7	Proposed Fuel Tank
1-8	Relocate Segmented Circle and Wind Cones out of Safety Areas
Phase II Mid-Term 6 - 10 Years	
2-1	Realign Taxiway D and Taxiway G Improvements
2-2	Rehabilitate Terminal Building
2-3	Construct New Maintenance Building
2-4	Demolish Abandoned Buildings
2-5	Demolish/Relocate Hangars in Taxiway Object Free Area
2-6	Runway 8R/26L and Associated Projects Preventative Maintenance
2-7	Construct New 2,000-square foot Hangars / Add Pavement
Phase III Long-Term 11 - 20 Years	
3-1	New T-Hangars on West End of Apron, Vehicle Parking, and Wash Racks

[1] Exempt from CEQA.
[2] Avigation Easements are assumed to require no construction activity

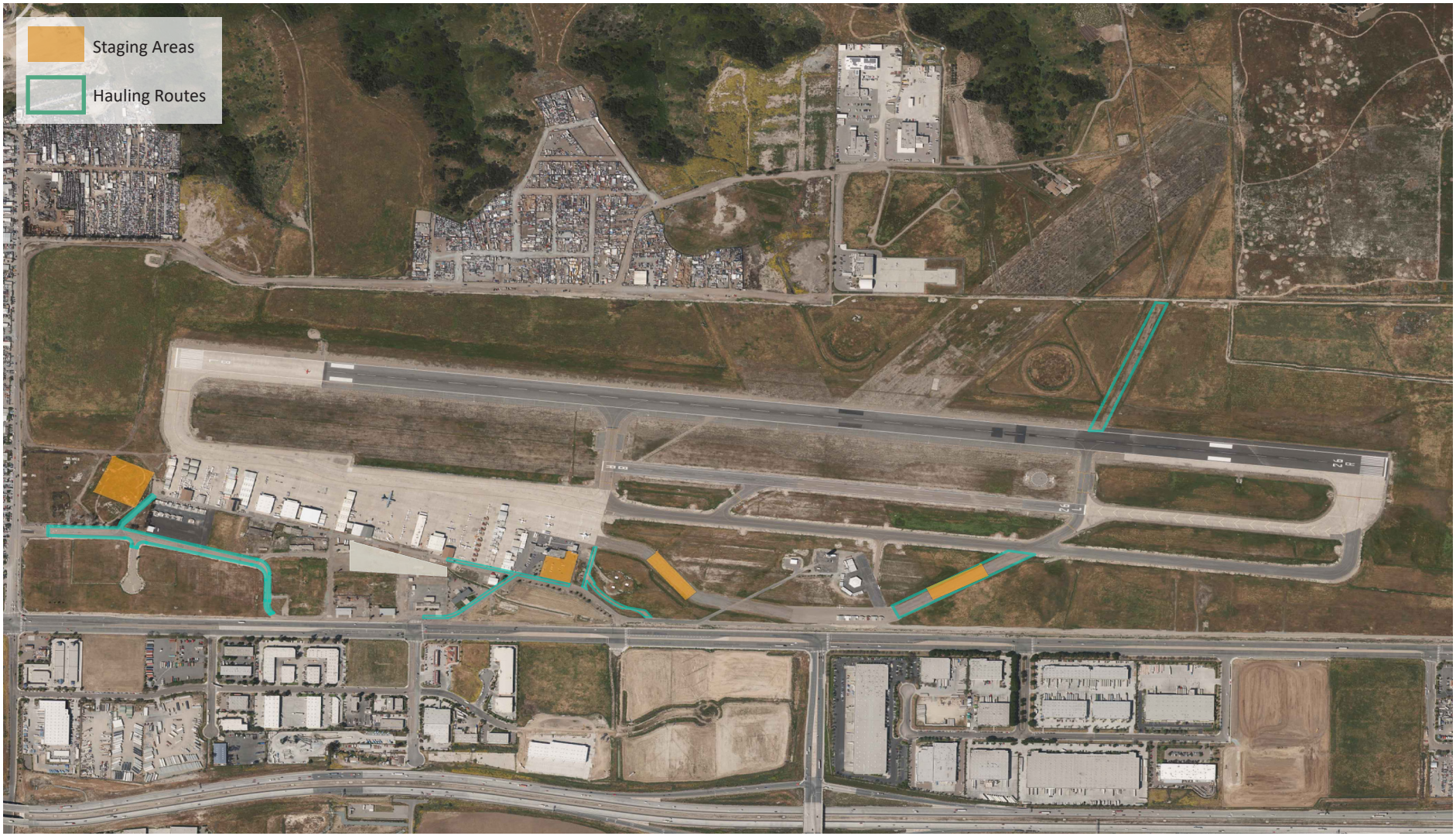
3.5.1 Construction

Details regarding construction equipment, activities, and duration are not available at the programmatic level. However, for the purposes of analysis within this PEIR, general assumptions have been developed for each phase of implementation of the AMP. Construction of the proposed improvements would generally include pavement-related construction activities and hangar/building-related construction activities. Pavement-related construction activities would include runway and taxiway marking, preventative maintenance and rehabilitation, existing surface reconstruction, new surface construction, and pavement demolition. Figure 3-3, *Staging Areas*, shows the hauling routes and staging areas that would be used during construction.

3.5.1.1 Pavement Maintenance

AMP tasks identified as runway, taxiway, or ramp improvements are assumed to be pavement maintenance treatments in accordance with the *Pavement Maintenance Management Plan* (C&S Engineers, Inc. 2019). All pavement improvements are assumed to require re-application of runway and taxiway markings following paving activities. Pavement maintenance and improvements are broken into four categories:

- Preventative Maintenance and Rehabilitation: Pavement preventative maintenance or rehabilitation would involve a combination of any of the following operations: crack sealing, shallow patching, deep patching, and/or surface treatment. To be conservative, preventative maintenance is assumed to require the same level of treatment as rehabilitation. Three inches of material are assumed to be removed during shallow patching, and six inches of material are assumed to be removed during deep patching. Surface treatment is assumed to be a spray application of a bituminous slurry (also known as a seal coat) without added aggregate. It is assumed that the rehabilitated areas would require new pavement markings. Approximately 520,525 SF of pavement is assumed to require rehabilitative maintenance. Rehabilitation work rate is assumed to be 10,000 SF per day. The percentage of each rehabilitation area affected by repair operations is assumed to be:
    - Crack Sealing: 100%
    - Shallow Patching: 5%
    - Deep Patching: 2%
    - Surface Treatment: 20%
    - Markings: 10%
- Reconstruction: Pavement reconstruction is assumed to require removing up to 6 inches of asphalt concrete using a pavement milling machine and exporting the ground asphalt from the site. A new layer of asphalt concrete would be placed by a paving machine followed by a roller. It assumed that the rehabilitated areas would require new pavement markings. Approximately 741,400 SF of pavement is assumed to require reconstruction. Reconstruction work rate is assumed to be approximately 25,000 SF per day.
- New Surface: The construction of new surfaces for runways, taxiways, aprons, and hangar/ tiedown areas is assumed to require excavating to a depth of approximately 18 inches using



Source: C&S Companies 2019

I:\PROJECTS\C\CSE\CSE-07_AirportMasterPlans\Map\Brown\EIR\Fig3-3_Staging.indd CSE-07 4/3/2019 - SAB

HELIX Environmental Planning

Staging Areas

Figure 3-3

a combination of rubber-tired dozers and graders and rubber-tired loader and exporting the material from the site. New surfaces are assumed to be typically 12 inches of subgrade compacted with a steel drum vibratory roller, followed by 6 inches of asphalt concrete laid by a paving machine and compacted with a steel drum vibratory roller. Approximately 922,000 SF of pavement is assumed to require new surfacing. New surface work rate is assumed to be 12,000 SF per day.

- Pavement Demolition: Pavement demolition is assumed to require the removal of the asphalt concrete layer (leaving any aggregate subgrade), grinding the removed asphalt, and exporting the material from the site. Approximately 249,680 SF of pavement is assumed to be demolished. Pavement demolition work rate is assumed to be approximately 10,000 SF per day.

3.5.1.2 Pavement Marking

For new or repaired runway or taxiway surfaces, 10 percent of the surface is assumed to require new marking. It is assumed that the area to be marked would be cleaned of rubber and old paint prior to marking using a self-propelled high-pressure blasting truck, followed by a self-propelled automated pavement marking machine with an assumed total of 712 horsepower (hp) (two engines). For new or repaired runway or taxiway surfaces, 1,070,775 SF is assumed to require new marking. The marking work rate is assumed to be 35,000 SF per day.

3.5.1.3 Construction Equipment Assumptions

The construction equipment to be used for each improvement task in the proposed AMP has not been determined at the time of this programmatic analysis. A conservative (high) estimate of the maximum anticipated required equipment is shown in Table 3-7, *Construction Equipment Assumptions*.

Table 3-7
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity Type	Equipment	Quantity
Pavement Maintenance/ Rehabilitation	Crack Sealing Truck	1
	Concrete Saw	1
	Tractors/Loaders/Backhoes	1
	Paving Equipment	1
	Roller	1
Pavement Reconstruction	Pavement Milling Machine	1
	Paving Machine	1
	Paving Equipment	1
	Roller	1
Pavement New Surface	Rubber Tired Dozer	1
	Rubber Tired Loader	1
	Grader	1
	Paving Machine	1
	Paving Equipment	1
	Roller	1

Activity Type	Equipment	Quantity
Pavement Demolition	Concrete Saw	1
	Rubber Tired Dozer	1
	Rubber Tired Loader	1
	Excavator	1
	Grinding/Crushing Machine	1
Pavement Marking	Blasting Truck	1
	Marking Machine	1
Hangar Construction	Rubber Tired Dozer	1
	Tractors/Loaders/Backhoes	1
	Crane	1
	Forklift	1
	Aerial Lift	1
	Welder	1
	Generator	1
Building Demolition	Concrete Saw	1
	Excavator	1
	Rubber Tired Dozer	1
Building Construction	Crane	1
	Forklift	1
	Tractors/Loaders/Backhoes	1

Source: HELIX 2019a (Appendix B).

3.6 Relationship to Local Land Use Plans

3.6.1 General Plan

The City's General Plan (General Plan), as amended, provides policy direction for future Community Plan Updates (CPUs), discretionary project review, and implementation programs. The General Plan provides the citywide vision and comprehensive policy framework for how the City should grow and develop, provide public services, and maintain the qualities that define the City as a whole. The community plans incorporate relevant policies from the General Plan, and provide a long-range, comprehensive policy framework and vision for growth and development in the community through 2050. The General Plan and Community Plan work together to establish the policy framework for growth and development in Otay Mesa. Ultimately, development within the various community plans is regulated through a range of regulatory documents in addition to the Community Plan, including the General Plan and the SDMC Land Development Code (LDC).

3.6.2 Community Plan

The City is broken up into various communities, each with its own planning group, community plans, and/or regulations. SDM is within the community of Otay Mesa, which is guided by the OMCP. The OMCP was adopted in 1981, and last amended in 2014 (City 2014). A large portion of the Otay Mesa community is designated as open space, and the OMCP identifies centers for industrial, neighborhood-oriented mixed-use areas, and education/ recreation activity centers. The OMCP recognizes that while SDM is technically within the boundaries of the Otay Mesa planning area, the land use policies that apply to the Airport are contained in the ALUCP. The OMCP requires that any proposed development be reviewed for compatibility with SDM, per the specifications in the ALUCP.

3.7 Other Agency Approvals

The AMP is intended to guide the development of the Airport within the 20-year planning period (through 2037). Accordingly, while many of the proposed improvements are covered by this EIR at a project level, others provide a template for future actions that are covered at a programmatic level of detail. For the latter actions, the analysis contained herein anticipates that future development would occur within the proposed AMP area and would be subject to applicable development regulations and requirements of the City, the AMP, and this PEIR. Future development within the proposed AMP area would involve subsequent approval of public and private development proposals through both ministerial and discretionary reviews in accordance with applicable federal, state, and local regulations, and proposed AMP policies. A non-inclusive list of discretionary actions that would occur as the AMP is implemented is shown in Table 3-8, *Potential Future Discretionary Actions Associated with the Proposed AMP*.

Table 3-8
POTENTIAL FUTURE DISCRETIONARY ACTIONS ASSOCIATED WITH THE PROPOSED AMP

Entity	Discretionary Action/Approvals
County of San Diego	Because the ALUCP is based on the ALP most recently approved by the FAA, any changes to the ALP occurring as a result of the master planning process will be reviewed by the San Diego Regional Airport Authority, acting as the designated ALUC for all airports within San Diego County, to determine potential impacts to the ALUCP.
City of San Diego	Discretionary permits (e.g., Site Development Permits, Conditional Use Permits, Neighborhood Development Permits, Planned Development Permits, Conditional Use Permits, Neighborhood Use Permits)
	Water, sewer, and storm drain infrastructure and road improvements (public right-of-way permits)
	Street Vacations, Release of Irrevocable Offers of Dedication, and Dedications
State of California	Water Quality Certification Determinations for Compliance with Section 401
U.S. Federal Government	Federal Aviation Administration - The FAA reviews all elements of the AMP and is responsible for approving two of its elements: (1) the TAF and (2) the ALP. FAA approval of the TAF and ALP indicates that the FAA finds the proposed AMP development to be safe and efficient and that the ALP conforms to the FAA airport design standards. However, it is the responsibility of the City of San Diego – Airports Division to ensure consistencies with FAA processes.
	U.S. Army Corps of Engineers Section 404 Permits
	USFWS Section 7 or 10(a)
Other	SDG&E/Public Utilities Commission approvals of power line relocations or undergrounding

4.0 REGULATORY FRAMEWORK

The regulatory framework applicable to each environmental resource area addressed in the environmental analysis chapter of this PEIR (Chapter 5.0, Sections 5.1 through 5.12) is included in this chapter.

4.1 Air Quality

4.1.1 Federal

4.1.1.1 Federal Clean Air Act/National Ambient Air Quality Standards

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to the health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish NAAQS, which identifies concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants, including O_3, CO, SO_2, NO_2, respirable particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). Table 4-1, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards for these pollutants.

Table 4-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[1]	Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (367 µg/m^3)	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[1]	Secondary[2]
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

Source: CARB 2016

[1] National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

O_3: ozone; ppm: parts per million; µg/m^3: micrograms per cubic meter; PM_{10}: large particulate matter; AAM: Annual Arithmetic Mean; $PM_{2.5}$: fine particulate matter; CO: carbon monoxide; mg/m^3: milligrams per cubic meter; NO_2 nitrogen dioxide; SO_2: sulfur dioxide; km: kilometer; –: No Standard.

4.1.2 State

4.1.2.1 California Clean Air Act/California Ambient Air Quality Standards

The USEPA allows states the option to develop different (stricter) standards on criteria pollutants. The state of California has developed CAAQS and generally has set more stringent limits on the criteria pollutants (see Table 4-1). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 4-1). The California CAA, also known as the Sher Bill or California AB 2595, was signed into law on September 30, 1988, and became effective on January 1, 1989. The California CAA requires that air districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures.

The CARB is the state regulatory agency with the authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The SDAPCD is responsible for developing and implementing the rules and regulations designed to attain the NAAQS and CAAQS, as well as permitting new or modified sources, developing air quality management plans, and adopting and enforcing air pollution regulations for San Diego County.

The SDAPCD and SANDAG are responsible for developing and implementing the clean air plan for the attainment and maintenance of the ambient air quality standards in the SDAB. The regional air quality plan for the NAAQS is SDAPCD's 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County (Attainment Plan; SDAPCD 2020). The regional air quality plan for the CAAQS is SDAPCD's 2022 Regional Air Quality Strategy (RAQS; SDAPCD 2022). These plans address emissions from all sources, including natural sources, through the implementation of control measures, where feasible, on stationary sources to attain the NAAQS and CAAQS. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan and RAQS.

The Attainment Plan and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that information, the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by the local jurisdictions' general plans would be consistent with the Attainment Plan and RAQS.

4.1.2.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

The Health and Safety Code (H&SC; §39655, subd. (a)) defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the CAA (42 U.S.C. Sec. 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through the CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (AB 1807: H&SC Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill (SB) 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring

network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the SDAPCD Regulation XII.

Of particular concern statewide are diesel-exhaust particulate matter (DPM) emissions. DPM was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of the health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB and are listed as carcinogens under California's Proposition 65 or under the Federal Hazardous Air Pollutants program.

Following the identification of DPM as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles* (State of California 2000). A stated goal of the plan is to reduce the cancer risk statewide arising from exposure to DPM by 85 percent by 2020.

4.1.3 Local

4.1.3.1 Regional Air Quality Strategy

The SDAPCD prepared the 1991/1992 RAQS in response to the requirements set forth in AB 2595. The draft was adopted, with amendments, on June 30, 1992 (County 1992). Attached, as part of the RAQS, are the Transportation Control Measures (TCMs) for the air quality plan prepared by SANDAG in accordance with AB 2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The required triennial updates of the RAQS and corresponding TCMs were adopted in 1995, 1998, 2001, 2004, 2009, and 2016, with the most recent version adopted by the SDAPCD in 2022. The RAQS and TCMs set forth the steps needed to accomplish the attainment of the CAAQS.

The California CAA requires areas that are designated non-attainment of CAAQS for ozone, CO, SO_2, or NO_2 to prepare and implement state plans to attain the standards by the earliest practicable date (H&SC Section 40911(a)). With the exception of state ozone standards, each of these standards has been attained in SDAB (SDAPCD 2022). Refer to Section 4.1.2.1 for additional discussion on the RAQS.

4.1.3.2 San Diego County Air Pollution Control District Rule 50 (Visible Emissions)

Particulate matter pollution impacts the environment by decreasing visibility (haze). These particles vary greatly in shape, size, and chemical composition, and come from a variety of natural and manmade sources. Some haze-causing particles are directly emitted into the air, such as windblown dust and soot. Others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles), which are the major constituents of $PM_{2.5}$. These fine particles, caused largely by the combustion of fuel, can travel hundreds of miles causing visibility impairment.

Visibility reduction is probably the most apparent symptom of air pollution. Visibility degradation is caused by the absorption and scattering of light by particles and gases in the atmosphere before it reaches the observer. As the number of fine particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range. Light absorption by gases and particles is sometimes the cause of discolorations in the atmosphere but usually does not contribute very significantly to visibility degradation. Scattering by particulates impairs visibility much more readily. SDAPCD Rule 50 (Visible Emissions) sets emission limits based on the apparent density or opacity of the emissions using the Ringelmann scale.

4.1.3.3 San Diego County Air Pollution Control District Rule 51 (Nuisance)

SDAPCD Rule 51 prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days.

4.1.3.4 San Diego County Air Pollution Control District Rule 55 (Fugitive Dust Control)

SDAPCD Rule 55 (Fugitive Dust Control) requires action to be taken to limit dust from construction and demolition activities from leaving the property line. Similar to Rule 50 (Visible Emissions), Rule 55 (Fugitive Dust Control) places limits on the amount of visible dust emissions in the atmosphere beyond the property line. It further stipulates that visible dust on roadways as a result of trackout/carry-out shall be minimized through the implementation of control measures and removed at the conclusion of each work day using street sweepers.

4.1.3.5 San Diego County Air Pollution Control District Rule 67.0.1 (Architectural Coatings)

Future development pursuant to the proposed AMP is required to comply with SDAPCD Rule 67.0.1 (Architectural Coatings) which sets the following standard:

- Non-residential interior/exterior coatings are to be less than or equal to 100 g/L

4.1.3.6 City of San Diego Municipal Code

The City's Off-Site Development Impact Regulations (SDMC Chapter 14, Article 2, Division 7) apply to development in any zone and provide standards for air contaminants, noise, electrical/radioactivity disturbance, glare, and lighting. SDMC Section 142.0710 establishes that air contaminants, including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling, shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located.

4.2 Biological Resources

4.2.1 Federal

4.2.1.1 Endangered Species Act

Administered by the USFWS, the FESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the FESA. Section 9(a), which defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in the federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. The ultimate goal is to restore healthy populations of listed species within their native habitats, so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the FESA, federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of the critical habitat.

Sections 7 and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 generally describes a process of federal interagency consultation and issuance of a biological opinion and incidental take statement when federal actions may adversely affect listed species. Section 10(a) generally describes a process for preparation of a Habitat Conservation Plan and issuance of an incidental take permit.

4.2.1.2 Migratory Bird Treaty Act

Migratory bird species that are native to the United States or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds. In common practice, the MBTA is now used to place restrictions on the disturbance of active bird nests during the nesting season. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests. The Migratory Bird Treaty Reform Act requires the USFWS to publish a list of all nonnative, human introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or its territories is solely the result of intentional or unintentional human-assisted introductions.

4.2.1.3 Clean Water Act

The USACE regulates impacts to waters of the U.S. under Section 404 of the CWA (33 U.S.C. 401 et seq.; 33 U.S.C. 1344; U.S.C. 1413; and Department of Defense, Department of the Army, Corps of Engineers 33 CFR Part 323). The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. A federal CWA Section 404 Permit would be required for a project to place fill in waters of the U.S. Projects impacting waters of the U.S. could be

permitted on an individual basis or be covered under one of several approved nationwide permits. Individual permits are assessed individually based on the type of action, amount of fill, etc. Individual permits typically require substantial time (often longer than one year) to review and approve, while nationwide permits are pre-approved if a project meets appropriate conditions. A CWA Section 401 Water Quality Certification administered by the RWQCB must be issued prior to the issuance of a Section 404 Permit.

4.2.2 State

4.2.2.1 California Endangered Species Act

Similar to the FESA, the California Endangered Species Act (CESA) of 1970 provides protection to species considered threatened or endangered by the state of California (CFG Code, Section 2050 et seq.). The CESA recognizes the importance of threatened and endangered fish, wildlife, and plant species and their habitats, and prohibits the taking of any endangered, threatened, or rare plant and/or animal species unless specifically permitted for education or management purposes.

The CESA established that it is state policy to conserve, protect, restore, and enhance state endangered species and their habitats. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). For state-only listed species, Section 2081 of the CFG Code authorizes the CDFW to issue an Incidental Take Permit for state listed threatened and endangered species if specific criteria are met. The City was issued a take permit for their adopted MSCP SAP pursuant to Section 2081.

4.2.2.2 California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

4.2.3 Local

4.2.3.1 Multiple Species Conservation Program

Refer to Section 4.8.7 for a discussion of the MSCP, MHPA, and MHPA Land Use Adjacency Guidelines.

4.2.3.2 Vernal Pool Habitat Conservation Plan

In October 2019, the City completed the VPHCP (City 2019), which is a comprehensive plan to provide conservation of vernal pool habitats and seven sensitive species that do not have coverage under the City's MSCP SAP. The VPHCP encompasses the entire City and MSCP SAP coverage area of approximately 206,124 acres and includes some lands owned by the City that are within unincorporated San Diego County (i.e., Cornerstone Lands, which include water supply areas for the City). Some lands within the City limits not under City jurisdiction (e.g., school districts, water districts, federal and state lands, etc.) are not automatically covered by the VPHCP; however, those landowners can seek coverage under the VPHCP through a Certificate of Inclusion.

In addition to authorizing take of sensitive vernal pool species, the VPHCP serves to expand the City's MHPA, with a focus on the management and conservation of vernal pool habitats and their associated species, particularly the covered species of the VPHCP. The VPHCP is comprised of three Planning Units (PUs); north, central, and south. The AMP area is located within the central PU of the VPHCP.

The seven species covered under the VPHCP include five plants and two animals, as listed below. The AMP area has the potential to support four of the seven covered VPHCP species. Species known to be in the AMP area are indicated with **, as follows:

- Otay Mesa mint (*Pogogyne nudiuscula*); federally listed endangered (FE) and state listed endangered (SE)
- San Diego mesa mint (*Pogogyne abramsii*); FE and SE**
- Spreading navarretia (*Navarretia fossalis*); FT**
- San Diego button-celery (*Eryngium aristulatum* var*. Parishii*); FE and SE**
- California Orcutt grass (*Orcuttia californica*); FE and SE
- Riverside fairy shrimp (*Streptocephalus wootton*i); FE
- San Diego fairy shrimp (*Branchinecta sandiegonensis*); FE**

As discussed in Section 4.2.7 of the VPHCP, federal aviation regulations require that the airport be maintained and operated in a manner that promotes the health, safety, and welfare of airport users, and the surrounding communities. As part of this mandate, the airport has required operations and standard activities that have the potential to impact covered species and/or vernal pool habitat. Table 4-7 of the VPHCP identifies these covered airport activities. Section 8.4.3 of the VPHCP identifies the Minor Amendment Process for the airport. The Minor Amendment Process would allow impacts to vernal pool habitat and VPHCP covered species located within the legal boundaries of the airport properties while meeting the health and safety requirements of the airports. Approval of a Minor Amendment requires a project submittal by the Permittee to Wildlife Agencies for a consistency determination with the VPHCP. The consistency determination would be based on the VPHCP; the VPMMP; funding for the required management, monitoring, and reporting activities; and the City's ESL and Biology Guidelines. If a project is consistent with the VPHCP, the Wildlife Agencies will provide a Letter of Concurrence and the project will proceed in accordance with the VPHCP.

4.2.3.3 City of San Diego Environmentally Sensitive Lands Regulations

ESLs include sensitive biological resources (e.g., MHPA), steep hillsides, coastal beaches, sensitive coastal bluffs, and 100-year floodplains. Mitigation requirements for sensitive biological resources follow the requirements of the City's Biology Guidelines (2018) as outlined in the City's Municipal Code ESL Regulations (Chapter 14, Article 3, Division 1). Impacts to biological resources within and outside the MHPA must comply with the City's ESL Regulations, which serve to implement standards and requirements of CEQA and the MSCP SAP.

The purpose of the ESL Regulations is to "protect, preserve and, where damaged, restore the ESL of San Diego and the viability of the species supported by those lands." The regulations require that development avoid impacts to certain sensitive biological resources as much as possible, including but not limited to MHPA lands; wetlands and vernal pools in naturally occurring complexes; federal and state listed, non-MSCP Covered Species; and MSCP NE species. Furthermore, the ESL Regulations state that wetlands impacts should be avoided, and unavoidable impacts should be minimized to the maximum extent practicable. In addition to protecting wetlands, the ESL Regulations require that a buffer be maintained around wetlands, as appropriate, to protect wetland-associated functions and values. While a 100-foot buffer width is generally required in the coastal zone and recommended in areas outside the coastal zone, this width may be increased or decreased on a case-by-case basis in consultation with the City, CDFW, USACE, and USFWS (City 2018). Future development within the AMP area would be required to comply with all applicable City ESL Regulations.

4.2.3.4 Biology Guidelines

In September 1999, the City's Biology Guidelines (City 2018), part of the City's Land Development Manual, were adopted to aid in the implementation and interpretation of the ESL Regulations (SDMC Chapter 14, Article 3, Division 1) and the OR-1-2 Zone (SDMC Chapter 13, Article 1, Division 2). The Guidelines were most recently updated in 2018. Section III of the Biology Guidelines serves as the standard for the determination of impact and mitigation under CEQA and the California Coastal Act. The guidelines are the baseline biological standards for processing Neighborhood Development Permits, Site Development Permits, and Coastal Development Permits issued pursuant to the ESL Regulations.

4.2.3.5 City of San Diego General Plan

The General Plan presents goals and policies for biological resources in the Conservation Element, which aims to: protect and conserve the landforms, canyon lands, and open spaces; limit development of floodplains and sensitive biological areas, including wetlands, steep hillsides, canyons, and coastal lands; manage and/or minimize runoff, sedimentation, and erosion due to construction activity in order to improve watershed management and water quality; manage wetland areas for natural flood control and preserve wetland areas; preserve areas within the MSCP and implement the goals and policies of the City's MSCP SAP; support the long-term monitoring of restoration and mitigation efforts to track and evaluate changes in wetland acreage, functions, and values; and work with private, state, and federal organizations or people to implement an effective wetland management system.

4.3 Geology and Soils

4.3.1 State

4.3.1.1 Earthquake Fault Zoning Act (Alquist-Priolo 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. Application for a development permit for any project within a delineated earthquake fault zone shall be accompanied by a geologic report, prepared by a geologist registered in the State of California, that is directed to the problem of potential surface fault displacement through a project site.

4.3.1.2 California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act (PRC; Division 2, Chapter 7.8, Section 2690 et seq.) provides a statewide seismic hazard mapping and technical advisory program to assist local governments in protecting public health and safety relative to seismic hazards. The Act provides direction and funding for the State Geologist to compile seismic hazard maps and to make those maps available to local governments. The Act, along with related standards in the Seismic Hazards Mapping Regulations (CCR Title 14, Division 2, Chapter 8, Article 10, Section 3270 et seq.), directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects. These requirements are implemented on a local level through means such as general plan directives and regulatory ordinances.

4.3.1.3 California Building Code

The California Building Code (CBC) (CCR Title 24, Part 2) encompasses several requirements related to geologic issues. Specifically, these include general provisions (Chapter 1); structural design, including soil and seismic loading (Chapters 16/16A); structural tests and special inspections, including seismic resistance (Chapters 17/17A); soils and foundations (Chapters 18/18A); concrete (Chapters 19/19A); masonry (Chapters 21/21A); wood, including consideration of seismic design categories (Chapter 23); construction safeguards (Chapter 33); and grading, including excavation, fill, drainage, and erosion control criteria (Appendix J). The CBC encompasses standards from other applicable sources, including the International Building Code, and the American Society for Testing and Materials International, with appropriate amendments and modifications to reflect site-specific conditions and requirements in California.

4.3.2 Local

4.3.2.1 City of San Diego Seismic Safety Study

The San Diego Seismic Safety Study includes geologic hazards and fault maps of the City. Areas of the City are identified by geologic hazard category, which reflects the geologic hazard type and related risks. These are generalized maps, and site-specific geologic/geotechnical investigations may

be necessary for proposed development or construction. SDMC Section 145.1803 describes when a geotechnical investigation is required, and City of San Diego Development Services Information Bulletin 515 describes the minimum submittal requirements for geotechnical and geological reports that may be required for development permits, subdivision approvals, or grading permits.

4.3.2.2 City of San Diego Land Development Code

The City's LDC sets forth the regulations that apply to the development of land in the City, and comprises Chapters 11, 12, 13, 14, and 15 of the SDMC. The LDC describes situations where grading permits are needed, which include: for grading within a 100-year floodplain or which changes the existing drainage pattern; for grading, geotechnical investigations, well drilling, or agricultural activity on ESLs or on properties with historical resources; for any activity that disturbs soil or vegetation in ESL; if grading is being performed as a condition of a development permit or for restoring damage caused by illegal grading; if the grading is within privately owned open space easements or City-owned open space; for modification of slope on a canyon or excavation of a hillside; for grading of any nonenvironmentally sensitive land of one acre or more; or for fill with more than five percent broken concrete, asphalt, masonry or construction debris, or with any single piece larger than 12 inches in any direction.

4.3.2.3 City of San Diego Building Regulations

The City's Building Regulations (Chapter 14, Article 5) are intended to regulate the construction of applicable facilities and encompass (and formally adopt) associated elements of the CBC. Specifically, this includes guidelines regulating the "construction, alteration, replacement, repair, maintenance, moving, removal, demolition, occupancy, and use of any privately owned building or structure or any appurtenances connected or attached to such buildings or structures within this jurisdiction, except work located primarily in a public way, public utility towers and poles, mechanical equipment not specifically regulated in the Building Code, and hydraulic flood control structures."

4.3.2.4 General Plan Public Facilities, Services, and Safety Element

The Public Facilities, Services and Safety Element of the City General Plan (2023) identifies a number of applicable policies related to seismic, geologic, and structural considerations. Specifically, Policies PF-Q.1 and PF-Q.2 include measures regarding conformance with state laws related to seismic and geologic hazards, conducting/reviewing geotechnical investigations, and maintaining structural integrity with respect to geologic hazards.

4.4 Greenhouse Gas Emissions

4.4.1 Federal

4.4.1.1 Federal Clean Air Act

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* that carbon dioxide (CO_2) is an air pollutant, as defined under the CAA, and that USEPA has the authority to regulate emissions of GHGs. The USEPA announced that GHGs (including CO_2,

methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) threaten the public health and welfare of the American people. This action was a prerequisite to finalizing the USEPA's GHG emissions standards for light-duty vehicles, which were jointly proposed by the USEPA and the U.S. Department of Transportation's (DOT) National Highway Traffic Safety Administration (NHTSA) on September 15, 2009.

4.4.1.2 Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The USEPA and the NHTSA worked together on developing a national program of regulations to reduce GHG emissions and improve the fuel economy of light-duty vehicles. The USEPA established the first-ever national GHG emissions standards under the CAA, and the NHTSA established Corporate Average Fuel Economy standards under the Energy Policy and Conservation Act. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking that established standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. In March 2022, the agencies finalized standards for model years 2024 through 2026 and established an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026 (NHTSA 2023).).

4.4.1.3 United States Aviation Climate Action Plan

On November 9, 2021, the FAA published the United States Aviation CAP, which describes a whole-of-government approach to put the sector on a path toward achieving net-zero emissions by 2050. The plan builds on individual and sector-wide commitments announced by the U.S. aviation industry and highlights specific actions and policy measures to foster innovation and drive change across the entire U.S. aviation sector.

The actions identified in the Plan will decrease emissions through:

- Development of new, more efficient aircraft and engine technologies
- Improvements in aircraft operations throughout the National Airspace System
- Production and use of Sustainable Aviation Fuels (SAF)
- Electrification and, potentially hydrogen, as solutions for short-haul aviation
- Advancements in airport operations across the U.S.
- International initiatives such as the airplane CO_2 standard and the Carbon Offsetting and Reduction Scheme for International Aviation
- Support for research into climate science

4.4.2 State

The state of California has adopted a number of plans and regulations aimed at identifying statewide and regional GHG emissions caps, GHG emissions reduction targets, and actions and timelines to achieve the target GHG reductions.

4.4.2.1 Executive Order S-3-05

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

4.4.2.2 Assembly Bill 32 – Global Warming Solution Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed by AB 32 to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

4.4.2.3 Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28-nation European Union. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions to 80 percent under 1990 levels by 2050.

4.4.2.4 Senate Bill 32

SB 32 (Amendments to the California Global Warming Solutions Action of 2006) extends California's GHG reduction programs beyond 2020. SB 32 amended the H&SC to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EO B-30-15 of 80 percent below 1990 emissions levels by 2050.

4.4.2.5 Assembly Bill 197

A condition of approval for SB 32 was the passage of AB 197. AB 197 requires that CARB consider the social costs of GHG emissions and prioritize direct reductions in GHG emissions at mobile sources and large stationary sources. AB 197 also gives the California legislature more oversight over CARB through the addition of two legislatively appointed members to the CARB Board and the establishment of a legislative committee to make recommendations about CARB programs to the legislature.

4.4.2.6 Assembly Bill 1493 – Vehicular Emissions of Greenhouse Gases

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars (CARB 2024c).

4.4.2.7 Assembly Bill 341

The state legislature enacted AB 341 (PRC Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. The final regulation was approved by the Office of Administrative Law on May 7, 2012, and went into effect on July 1, 2012.

4.4.2.8 Executive Order S-01-07

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs CARB to determine whether an LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

4.4.2.9 Senate Bill 350

Approved by Governor Brown on October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, and geothermal. In addition, large utilities are required to develop and submit Integrated Resource Plans to detail how each entity will meet their customers' resource needs, reduce GHG emissions, and increase the use of clean energy.

4.4.2.10 Senate Bill 375

SB 375, the Sustainable Communities and Climate Protection Act of 2008, supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB

established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPOs). CARB periodically reviews and updates the targets, as needed.

Each of California's MPOs must prepare a Sustainable Communities Strategy (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPOs' determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS does not meet the regional targets, the MPO must prepare a separate alternative planning strategy (APS) to meet the targets. The APS is not a part of the RTP. Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline CEQA processing.

4.4.2.11 Senate Bill 100

Approved by Governor Brown on September 10, 2018, SB 100 extends the renewable electricity procurement goals and requirements of SB 350. SB 100 requires that all retail sales of electricity to California end-use customers be procured from 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

4.4.2.12 Executive Order N-79-20

EO N-79-20, signed by Governor Newsom on September 23, 2020, establishes three goals for the implementation of zero emissions vehicles in California: first, 100 percent of in-state sales of new passenger cars and trucks will be zero-emissions by 2035; second, 100 percent of medium- and heavy-duty vehicles in the state will be zero-emissions vehicles by 2045 for all operations where feasible, and by 2035 for drayage trucks; and third, 100 percent of off-road vehicles and equipment will be zero emissions by 2035 where feasible.

4.4.2.13 Assembly Bill 1279

Approved by Governor Newsom on September 16, 2022, AB 1279, the California Climate Crisis Act, declares the policy of the State to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter, and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels. AB 1279 anticipates achieving these policies through direct GHG emissions reductions, removal of CO_2 from the atmosphere (carbon capture), and an almost complete transition away from fossil fuels.

4.4.2.14 Senate Bill 905

Approved by Governor Newsom on September 16, 2022, SB 905, Carbon Sequestration: Carbon Capture, Removal, Utilization, and Storage Program, requires CARB to establish a Carbon Capture, Removal, Utilization, and Storage Program to evaluate the efficacy, safety, and viability of carbon capture, utilization, or storage technologies and CO_2 removal technologies and facilitate the capture

and sequestration of CO_2 from those technologies, where appropriate. SB 905 is an integral part of achieving the state policies mandated in AB 1279.

4.4.2.15 Climate Change Scoping Plan

The Climate Change Scoping Plan is a strategy CARB develops and updates at least once every five years, as required by AB 32. It lays out the transformations needed across California's society and economy to reduce emissions and reach climate targets. The current 2022 Scoping Plan is the third update to the original plan that was adopted in 2008. The initial 2008 Scoping Plan laid out a path to achieve the AB 32 mandate of returning to 1990 levels of GHG emissions by 2020, a reduction of approximately 15 percent below business as usual. The 2008 Scoping Plan included a mix of incentives, regulations, and carbon pricing, laying out the portfolio approach to addressing climate change and clearly making the case for using multiple tools to meet California's GHG emission targets. The 2013 Scoping Plan assessed progress toward achieving the 2020 mandate and made the case for addressing short-lived climate pollutants (SLCPs). The 2017 Scoping Plan also assessed the progress toward achieving the 2020 limit and provided a technologically feasible and cost-effective path to achieving the SB 32 mandate of reducing GHGs by at least 40 percent below 1990 levels by 2030.

On December 15, 2022, CARB approved the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan). The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels; further reductions in SLCPs; support for sustainable development; increased action on natural and working lands to reduce emissions and sequester carbon; and the capture and storage of carbon (CARB 2022).

4.4.2.16 California Code of Regulations, Title 24, Part 6

CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space or water heating) results in GHG emissions. The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2022 Title 24 standards became effective on January 1, 2023. The 2022 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. New for the 2022 Title 24 standards are non-residential on-site PV (solar panels) electricity generation requirements (California Energy Commission 2022).

The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards–the energy budgets–that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach.

4.4.2.17 California Code of Regulations, Title 24, Part 11

CCR Title 24, Part 11: The California Green Building Standards Code (CALGreen) is a code with mandatory requirements for all non-residential buildings (including industrial buildings) and residential buildings for which no other state agency has the authority to adopt green building standards. CALGreen also contains voluntary measures (i.e., Tier 1, Tier 2), which exceed minimum regulatory requirements. The 2022 Standards for new construction of, and additions and alterations to, residential and non-residential buildings became effective on January 1, 2023 (California Building Standards Commission [CBSC] 2022).

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction.

CALGreen contains requirements for storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options, allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

4.4.3 Local

4.4.3.1 San Diego Forward: The Regional Plan

SANDAG's 2021 Regional Plan (Regional Plan) is the long-range planning document developed to address the region's housing, economic, transportation, environmental, and overall quality-of-life needs. The underlying purpose is to provide direction and guidance on future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout the region. The 2021 Regional Plan is a 30-year plan that considers how the community will grow, where residents will live, and how residents and visitors will move around the region. It combines the RTP, SCS, and Regional Comprehensive Plan. As such, the 2021 Regional Plan must comply with specific state and federal mandates. These include an SCS, per SB 375, that achieves GHG emissions reduction targets set by the CARB; compliance with federal civil rights requirements (Title VI); environmental justice considerations; air quality conformity; and public participation (SANDAG 2021).

4.4.3.2 City of San Diego General Plan

The 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.

One specific concept introduced in the General Plan is 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 and reinvest in existing communities. Locating different land uses types near one another can decrease mobile emissions. Thus, the development of dense urban "villages" would generate less GHG emissions. The City of Villages strategy can be seen as an effort to avoid what is commonly referred to as "urban sprawl."

Cumulative impacts of GHG emissions were qualitatively analyzed and determined significant and unavoidable in the PEIR for the General Plan. A PEIR Mitigation Framework was included that indicated "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."

4.4.3.3 Climate Action Plan

A CAP was adopted by the City Council in December 2015. The CAP quantifies existing GHG emissions as well as projected emissions for the years 2030 and 2035 resulting from activities within the City's jurisdiction. The CAP also identifies City target emissions levels, below which the Citywide GHG impacts would be less than significant. The CAP and the accompanying certified Final EIR also identify and analyze the GHG emissions that would result from the business-as-usual scenario for the years 2030 and 2035. The CAP includes a monitoring and reporting program to ensure its progress toward achieving the specified GHG emission reductions and specifies actions that, if implemented, would achieve the specified GHG emission reduction targets. In 2015, the CAP was adopted in a public process following the certification of Final EIR SCH No. 2015021053 (City 2015). After the adoption of the CAP, the City also established additional specific measures (CAP Consistency Checklist) that, if implemented on a project-by-project basis, would further ensure that the City achieves the specified GHG emission reduction targets in the CAP.

On August 2, 2022, the City Council adopted an update to the CAP (2022 CAP), in a public process following certification of the Second Addendum to Final EIR SCH No. 2015021053 (City 2022a). As proposed in the 2022 CAP, in October 2022, the City Council approved an amendment to the LDC (SDMC Chapter 14, Article 3, Division 14), which established the CAP Consistency Regulations. The CAP Consistency Regulations replaced the CAP Consistency Checklist as the measures that could be implemented on a project-by-project basis pursuant to CEQA Guidelines Section 15183.5(b)(1)(D). Projects for new development that are consistent with the CAP, as determined through compliance with the CAP Consistency Regulations, may rely on the CAP for the cumulative impact analysis of GHG emissions (City 2022b).

4.5 Historical, Archaeological, and Tribal Cultural Resources

4.5.1 Federal

4.5.1.1 National Historic Preservation Act of 1966 and National Register of Historic Places

The National Historic Preservation Act of 1966 established the NRHP as the official federal list of cultural resources that have been nominated by state offices for their significance at the local, state, or federal level. Listing in the NRHP provides recognition that a property is historically significant to the nation, the state, or the community. Properties listed (or potentially eligible for listing) in the NRHP must meet certain significance criteria and possess integrity of form, location, or setting. Barring exceptional circumstances, resources generally must be at least 50 years old to be considered for listing in the NRHP.

Criteria for listing in the NRHP are stated in 36 CFR 60. A resource may qualify for listing if there is quality of significance in American history, architecture, archaeology, engineering, and culture present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and where such resources:

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons important in our past;

C. Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Eligible properties must meet at least one of the NRHP criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character, the degree to which the original historic fabric has been retained, and the reversibility of changes to the property.

Integrity is the ability of a property to convey its significance. Within the concept of integrity, the NRHP recognizes seven aspects or qualities that, in various combinations, define integrity as defined below:

- Location: The place where the historic property was constructed or the place where the historic event occurred.

- Setting: The physical environment of a historic property.

- Design: The combination of elements that create the form, plan, space, structure, and style of a property.
- Materials: The physical elements that were combined or deposited during a particular period of time and in a pattern or configuration or form a historic property.
- Workmanship: The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling: The property's expression of the aesthetic or historic sense of a particular period of time.
- Association: The direct link between an important historic event or person and a historic property.

4.5.1.2 Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) ensures that Native American human remains and cultural items are treated with respect and dignity during all phases of project evaluation.

4.5.2 State

4.5.2.1 California Register of Historic Resources/California Environmental Quality Act

For the purposes of CEQA, a significant historical resource is one that qualifies for the CRHR, or is listed in a local historic register, or is deemed significant in a historical resource survey, as provided under PRC Section 5024.1(g). A resource that is not listed in, or determined to be eligible for listing in, the CRHR, is not included in a local register of historic resources, or is not deemed significant in a historical resource survey may nonetheless be deemed historically significant by a CEQA lead agency (CEQA Guidelines Section 15064.5 and CEQA Statutes Section 21083.2).

The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies resources for planning purposes; determines eligibility of state historic grant funding; and provides certain protections under CEQA. State criteria are those listed in CEQA and used to determine whether an historic resource qualifies for the CRHR. A resource may be listed in the CRHR if it is significant at the federal, state, or local level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history and cultural heritage of California or the United States;
2. It is associated with the lives of persons important to the nation or to California's past;
3. It 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; or

4. It has yielded, or may be likely to yield, information important in the prehistory or history of the state or nation.

As indicated above, the California criteria (CEQA Guidelines Section 15065.5) for the registration of significant architectural, archaeological, and historical resources in the CRHR are nearly identical to those for the NRHP. Furthermore, CEQA Section 21083.2(g) defines the criteria for determining the significance of archaeological resources. These criteria include definitions for a "unique" resource based on its:

- Containing information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Having a special and particular quality such as being the oldest or best available example of its type.
- Being directly associated with a scientifically recognized important prehistoric or historic event or person.

Properties listed, or formally designated eligible for listing, in the NRHP are automatically listed in the CRHR, as are State Historical Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

CEQA was amended in 1998 to define "historical resources" as: a resource listed in or determined eligible for listing on the CRHR; a resource included in a local register of historical resources or identified as significant in a historical resource survey that meets certain requirements; and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant.

The City's determination of significance of impacts on historical and unique archaeological resources is based on the criteria found in Section 15064.5 of the State CEQA Guidelines. Archaeological resources are considered "historical resources" for the purposes of CEQA. Most archaeological sites that qualify for the CRHR do so under criterion 4 (i.e., research potential).

Since resources that are not listed or determined eligible for the state or local registers may still be historically significant; their significance would be determined if they are affected by a development proposal. The significance of a historical resource under criterion 4 rests on its ability to address important research questions.

4.5.2.2 Native American Burials (Public Resources Code Section 5097 et seq.)

State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during the construction of a project; and designates the Native American Heritage Commission (NAHC) to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to a year in jail to deface or destroy an Indian historic or cultural site that is listed or may be eligible for listing in the CRHR.

4.5.2.3 California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (CAL-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.

4.5.2.4 Senate Bill 18

In California, the Traditional Tribal Cultural Places Bill of 2004 requires local governments to consult with Native American Tribes during the project planning process, specifically before adopting or amending a General Plan or a Specific Plan, or when designating land as open space for the purpose of protecting Native American cultural places. The intent of this legislation is to encourage consultation and assist in the preservation of Native American places of prehistoric, archaeological, cultural, spiritual, and ceremonial importance.

4.5.2.5 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 or Notice of Intent to Adopt a negative declaration, mitigated negative declaration, or EIR, on or after July 1, 2015. The bill requires that a lead agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a project if that tribe has requested, in writing, to be kept informed of projects by the lead agency, prior to the determination of whether a negative declaration, mitigated negative declaration, or EIR will be prepared. The bill also specifies mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources.

AB 52 codified this consultation process within the CEQA statute (PRC Section 20174). It also defines tribal cultural resources as either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    a. Included or determined to be eligible for inclusion in the California Register of Historical Resources.

    b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.5.3 Local

4.5.3.1 City of San Diego Municipal Code: Historical Resources Regulations

In January 2000, the City's Historical Resources Regulations, part of the SDMC (Sections 143.0201-143.0280), were adopted, providing a balance between sound historic preservation principles and the rights of private property owners. The Historical Resources Regulations 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 NHPA of 1966. Historical resources, in the context of the City's Historical Resources Regulations, 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.

The City's Historical Resources Guidelines are part of the City's LDM and set up a development review process to guide the review of projects in the City. This process is composed of two aspects: the implementation of the Historical Resources Regulations and the determination of impacts and mitigation under CEQA.

Section 143.0212(b) of the Historical Resources Regulations requires that historical resource sensitivity maps be used to identify properties in the City that have a probability of containing historic or prehistoric archaeological sites. These maps are based on records contained in the California Historical Resources Information System (CHRIS), on file at the South Coastal Information Center (SCIC) at San Diego State University (SDSU) and the San Diego Museum of Us, as well as site-specific information in the City's files. If records show an archaeological site exists on or immediately adjacent to a subject property, the City shall require a survey. In general, archaeological surveys are required when the proposed development is on a previously undeveloped parcel, if a known resource is recorded on the parcel or within a one-mile radius, if a qualified consultant or knowledgeable City staff member recommends it, or if more than five years have elapsed since the last survey and the potential for archaeological resources exists. A historic property (built environment) survey is required if the structure/site is over 45 years old; may meet one or more criteria for designation; and appears to have integrity of setting, design, materials, workmanship, feeling, and association.

Section 143.0212(d) of the Historic Resources Regulations states that if a property-specific survey is required, it shall be conducted according to the Historical Resources Guidelines criteria. Using the survey results and other available applicable information, the City shall determine whether a historical resource exists, whether it is eligible for designation as a designated historical resource, and precisely where it is located. If the survey results are negative, the review process is complete and no mitigation is required.

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 database. Cumulative impacts also occur in districts when several minor changes to contributing properties, their setting, or landscaping eventually result in a significant loss of integrity (City 2001).

4.5.3.2 Historical Resources Register

Compared to CEQA, the City provides a broader set of criteria for eligibility for the City's Historical Resources Register. As stated in the City's Historical Resources Guidelines, "Any improvement, building, structure, sign, interior element and fixture, site, place, district, area, or object may be designated as historic by the City Historical Resources Board if it meets any of the following criteria":

A. Exemplifies or reflects special elements of the City's, a community's or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or architectural development;

B. Is identified with persons or events significant in local, state, or national history;

C. Embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of Indigenous materials or craftsmanship;

D. Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist or craftsman;

E. Is listed on or has been determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the California Office of Historic Preservation (OHP) for listing on the State Register of Historical Resources; or

F. Is a finite group of resources related to one another in a clearly distinguishable way; or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value; or which represent one or more architectural periods or styles in the history and development of the City.

Historical resources determined to be significant/important must either be avoided or for archaeological resources, a data recovery program for important archaeological sites must be developed and approved prior to permit issuance to ensure adequate mitigation for the recovery of cultural and scientific information related to the resource's significance/importance.

4.5.3.3 City of San Diego General Plan

The Historic Preservation Element of the General Plan provides guidance on archaeological and historic site preservation in San Diego, including the roles and responsibilities of the Historical Resources Board (HRB), the status of cultural resource surveys, the Mills Act, conservation easements, and other public preservation incentives and strategies. A discussion of criteria used by the HRB to designate landmarks is included, as is a list of recommended steps to strengthen historic preservation in San Diego. The Historic Preservation Element sets a series of goals for the City for the preservation of historic resources, and the first of these goals is to preserve significant historical

resources. These goals are realized through the implementation of policies that encourage the identification and preservation of historical resources.

General Plan Policies HP-A.1 through HP-A.5 are associated with the overall identification and preservation of historical resources. This includes policies to provide for comprehensive historic resource planning and integration of such plans within the City's land use plans. These policies also focus on coordinated planning and preservation of tribal resources, including promoting the relationship with Kumeyaay/Diegueño tribes. Historic Preservation policies HP-B.1 through HP-B.4 address the benefits of historical preservation planning and the need for incentivizing maintenance, restoration, and rehabilitation of designated historical resources. This is proposed to be completed through a historic preservation sponsorship program and through cultural heritage tourism.

4.6 Human Health, Public Safety, and Hazardous Materials

4.6.1 Federal

The USEPA is the primary federal agency regulating hazardous wastes and materials. The USEPA broadly defines a hazardous waste as one that is specifically listed in the USEPA regulations, has been tested, and meets one of the four characteristics established by the USEPA (toxicity, ignitability, corrosiveness, and reactivity), or that has been declared hazardous by the generator based on its knowledge of the waste. The USEPA defines hazardous materials as any item or chemical that can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emptying, discharging, injecting, leaching, dumping, or disposing into the environment. Federal regulations pertaining to hazardous wastes and materials are generally contained in Titles 29, 40, and 49 of the CFR, which are discussed herein.

4.6.1.1 Resource Conservation and Recovery Act of 1976

The Resource Conservation and Recovery Act of 1976 (RCRA; 42 United States Code [U.S.C.] Sections 6901–6987), including the Hazardous and Solid Waste Amendments of 1984, protects human health and the environment, and imposes regulations on hazardous waste generators, transporters, and operators of treatment, storage, and disposal facilities. The Hazardous and Solid Waste Amendments also require USEPA to establish a comprehensive regulatory program for underground storage tanks. The corresponding regulations in 40 CFR 260–299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste.

4.6.1.2 Hazardous Materials Transportation Act

The DOT, the Federal Highway Administration, and the Federal Railroad Administration are the three entities that regulate the transport of hazardous materials at the federal level. The Hazardous Materials Transportation Act (49 CFR 171, Subchapter C) governs the transportation of hazardous materials. These regulations are promulgated by DOT and enforced by USEPA.

4.6.1.3 Comprehensive Environmental Response, Compensation, and Liability Act

The 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as the Superfund Act, provides federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Federal actions related to CERCLA are limited to sites on the National Priorities List (NPL) for cleanup activities, with NPL listings based on the USEPA Hazard Ranking System (HRS). The HRS is a numerical ranking system used to screen potential sites based on criteria such as the likelihood and nature of the hazardous material release, and the potential to affect people or environmental resources. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986.

The SARA is primarily intended to address the emergency management of accidental releases, and to establish state and local emergency planning committees responsible for collecting hazardous material inventory, handling, and transportation data. Specifically, under Title III of SARA, a nationwide emergency planning and response program established reporting requirements for businesses that store, handle, or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. Title III of SARA also requires each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when significant quantities of hazardous or acutely toxic substances are stored or handled at a facility. This data is made available to the community at large under the "right-to-know" provision, with SARA also requiring annual reporting of continuous emissions and accidental releases of specified compounds.

4.6.2 State

4.6.2.1 California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are codified in CCR Title 22, Division 4.5. Title 22 contains detailed compliance requirements for hazardous waste generation, transportation, treatment, storage, and disposal facilities. Because California is a fully authorized state under RCRA, most RCRA regulations are integrated into Title 22. The CalEPA/California Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the USEPA through Title 22, which does not include as many exemptions or exclusions as the equivalent federal regulations. Similar to the California H&SC (as outlined below), Title 22 also regulates a wider range of waste types and waste management activities than RCRA. The state has compiled a number of additional regulations from various CCR titles related to hazardous materials, wastes, and toxics into CCR Title 26 (Toxics), and provides additional related guidance in Titles 23 (Waters) and 27 (Environmental Protection), although California hazardous waste regulations are still commonly referred to as Title 22.

Title 24 of the CCR provides a number of requirements related to fire safety, including applicable elements of Part 2, the CBC; Part 2.5, the California Residential Code (CRC); and Part 9, the California Fire Code (CFC). Specifically, CBC Chapter 7 (Fire and Smoke Protection Features) includes standards related to building materials, systems, and assembly methods to provide fire resistance and prevent the internal and external spreading of fire and smoke (such as the use of non-combustible materials and fire/ember/smoke barriers). CBC Chapter 9 (Fire Protection Systems) provides standards regarding when fire protection systems (such as alarms and automatic sprinklers) are required, as

well as criteria for their design, installation, and operation. Section R327 of the CRC includes measures to identify Fire Hazard Severity Zones and assign agency responsibility (i.e., federal, state, and Local Responsibility Areas, refer to the discussion below under California Department of Forestry and Fire Protection), and provides fire-related standards for building design, materials, and treatments. The CFC establishes minimum standards to safeguard public health and safety from hazards including fire in new and existing structures. Specifically, this includes requirements related to fire hazards from building use/occupancy (e.g., access for fire-fighting equipment/personnel and the provision of water supplies), the installation or alteration/ removal of fire suppression or alarm systems, and the management of vegetative fuels and the provision of defensible space.

4.6.2.2 Hazardous Materials Release Response Plans and Inventory

Two programs in the California H&SC Chapter 6.95 are directly applicable to the CEQA issue of risk due to hazardous substance release. In San Diego County, these two programs are referred to as the Hazardous Materials Business Plan (HMBP) program and the California Accidental Release Prevention (CalARP) program. The County DEH is responsible for the implementation of the HMBP program and the CalARP program in San Diego County. The HMBP and CalARP programs provide threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, an HMBP or Risk Management Plan is required pursuant to the regulations. Congress requires USEPA Region 9 to make Risk Management Plan information available to the public through USEPA's Envirofacts Data Warehouse. The Envirofacts Data Warehouse is considered the single point of access to select USEPA environmental data. California H&SC Section 25270, Aboveground Petroleum Storage Act, requires registration and spill prevention programs for ASTs that store petroleum. In some cases, ASTs for petroleum may be subject to groundwater monitoring programs implemented by the RWQCBs and the SWRCB.

4.6.2.3 Emergency Response to Hazardous Materials Incidents

California has developed the California State Emergency Response Plan (California Governor's Office of Emergency Services 2017) to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Governor's Office of Emergency Services (formerly the California Emergency Management Agency), which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol, CDFW, and RWQCB. A 2023 update to the State Emergency Response Plan is currently being prepared.

4.6.2.4 California Department of Toxic Substances Control

Within CalEPA, the DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law. Since August 1, 1992, DTSC has been authorized to implement the state's hazardous waste management program for CalEPA.

DTSC is responsible for compiling a list of hazardous materials sites pursuant to Government Code Section 65962.5, which includes five categories:

- Hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the H&SC;
- Land designated as "hazardous waste property" or "border zone property";
- Properties with hazardous waste disposals on public land;
- Hazardous substance release sites selected for (and subject to) a response action; and
- Sites included in the Abandoned Site Assessment Program.

4.6.2.5 CalEPA's Unified Program

In 1993, SB 1082 gave CalEPA the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program, commonly referred to as the Unified Program. The purpose of this program is to consolidate and coordinate six different hazardous materials and hazardous waste programs, and to ensure that they are consistently implemented throughout the state. CalEPA oversees the Unified Program with support from DTSC, RWQCBs, the San Diego County Office of Emergency Services, and the State Fire Marshal.

State law requires county and local agencies to implement the Unified Program. The agency in charge of implementing the program is called the Certified Unified Program Agency (CUPA). The County of San Diego DEH, Hazardous Materials Division, is the designated CUPA for the county. In addition to the CUPA, other local agencies help to implement the Unified Program. These agencies are called Participatory Agencies. The Hazardous Materials Division (HMD) is the Participatory Agency for San Diego County.

4.6.3 Local

4.6.3.1 County of San Diego Department of Environmental Health

The HMD of DEH regulates hazardous waste and tiered permitting, USTs, aboveground petroleum storage and risk management plans, HMBPs and chemical inventory, and medical waste. The HMD's goal is "to protect human health and the environment by ensuring that hazardous materials, hazardous waste, medical waste, and underground storage tanks are properly managed" (County 2018).

4.6.3.2 San Diego County Multi-Jurisdictional Hazard Mitigation Plan

Long-term prevention, mitigation efforts, and risk-based preparedness for specific hazards within San Diego are addressed as a part of the 2023 San Diego County MHMP, which was adopted in February 2023. It is intended to enhance public awareness, help serve as a decision-making tool, promote compliance with state and federal requirements, supplement local policies regarding disaster planning, and improve multi-jurisdictional coordination. The MHMP identifies specific risks for San Diego County and provides methods to help minimize damage caused by natural and man-made disasters. The list of hazards profiled for San Diego County includes climate change; sea level rise/coastal storms; erosion; dam failure; earthquake/liquefaction; flood; rain-induced landslide; wildfire; extreme heat; drought; severe winter weather; and terrorism/cyber terrorism.

4.6.3.3 San Diego County Operational Area Emergency Plan

The 2022 San Diego County Operational Area Emergency Plan describes a comprehensive emergency management system, which provides for a planned response to disaster situations associated with natural disasters, technological incidents, terrorism, and nuclear-related incidents. It delineates operational concepts relating to various emergency situations, identifies components of the Emergency Management Organization, and describes the overall responsibilities for protecting life and property and providing for the overall well-being of the population. The plan also identifies the sources of outside support that might be provided (through mutual aid and specific statutory authorities) by other jurisdictions, state and federal agencies, and the private sector.

4.6.3.4 City of San Diego Municipal Code

Hazardous Materials

The Hazardous Waste Establishment section of the SDMC (SDMC Chapter 4, Article 2, Division 8) enables the Health Officer to establish a program to monitor establishments where hazardous wastes are produced, stored, handled, disposed of, treated, or recycled, and to provide health care information and other appropriate technical assistance on a 24-hour basis to emergency responders in the event of a hazardous waste incident involving community exposure. The Disclosure of Hazardous Materials section (SDMC Chapter 4, Article 2, Division 9) establishes a system for the provision of information on potential hazards or hazardous materials in the community, including appropriate education and training for the use of information. Elements of the system include the Health Officer's ability to seek advice from the Hazardous Materials Advisory Committee, the filing of a hazardous substance disclosure form, the content of the disclosure form, emergency response information, and penalties for violations.

Airport Land Use Compatibility Zone

The SDMC addresses issues related to safety compatibility in the Airport Land Use Compatibility Overlay Zone. Chapter 13 Article 2, Division 15 establishes the Airport Land Use Compatibility Overlay Zone, which ensures that new development located within an AIA for Marine Corps Air Station (MCAS) Miramar, Montgomery-Gibbs Executive Airport, Brown Field, and Gillespie Airport is compatible with respect to airport-related noise, public safety, airspace protection, and aircraft overflight areas. Regulations include safety compatibility and aircraft overflight notification.

Brush Management

The City's Brush Management Regulations (SDMC Section 142.0412) are intended to minimize wildland fire hazards through prevention activities and programs. These regulations require the provision of mandatory setbacks, irrigation systems, regulated planting areas, and plant maintenance in specific zones, and are implemented at the project level through the grading and building permit process.

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. The City requires Brush Management Plans for all new developments, which are intended to reduce the risk of significant loss, injury, or death involving wildland fires. Unless otherwise approved by the City Fire Marshal, the

brush management plans for all future development would consist of two separate and distinct zones as follows:

- Zone One consists of the area adjacent to structures where flammable materials would be minimized through the use of pavement and/or permanently irrigated ornamental landscape plantings. This zone is not allowed on slopes with a gradient greater than 4:1.
- Zone Two consists of the area between Zone One and any area of native or non-irrigated vegetation and consists of thinned native or naturalized vegetation.

4.6.3.5 City of San Diego General Plan

The General Plan presents goals and policies relating to hazardous materials and disaster preparedness in the Public Facilities, Services, and Safety Element.

4.6.3.6 Airport Land Use Compatibility Plans

Refer to Section 4.8.3.10 for a discussion of ALUCPs.

4.7 Hydrology and Water Quality

4.7.1 Federal

4.7.1.1 Clean Water Act

The Clean Water Act (CWA: 33 U.S.C. Section 1251 et seq.) (1972) is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. The CWA established basic guidelines for regulating discharges of pollutants into waters of the United States and requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

Section 401 of the CWA requires that any applicant for a federal permit to conduct any activity, including the construction or operation of a facility that may result in the discharge of any pollutant, must obtain certification from the state. Section 402 of the CWA established the 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 United States. In California, the SWRCB and RWQCBs administer the NPDES permitting programs and are responsible for developing waste discharge requirements. Each local RWQCB is responsible for developing waste discharge requirements specific to its jurisdiction. General waste discharge requirements that may apply to projects or recommendations contained within the proposed AMP include the SWRCB Construction General Permit and Industrial General Permit and the regional MS4 Permit administered by the RWQCB.

Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of impaired waters. These are waters that are too polluted or otherwise degraded to meet the water quality standards set by states, territories, or authorized tribes. The law requires that these jurisdictions establish priority rankings for waters on the lists and develop TMDLs for these waters. A

TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards.

4.7.1.2 Executive Order 11988, Floodplain Management

The major requirements of this EO are to avoid support of floodplain development; to prevent uneconomic, hazardous, or incompatible use of floodplains; to protect and preserve the natural and beneficial floodplain values; and to be consistent with the standards and criteria of the National Flood Insurance Program (NFIP). The basic tools for regulating construction in potentially hazardous floodplain areas are local zoning techniques. Proper floodplain zoning can be beneficial in the preservation of open space, retention of floodplains as groundwater recharge areas, and the location of development to less flood-prone areas.

4.7.1.3 National Flood Insurance Program

The NFIP is a federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. In support of the NFIP, FEMA identifies flood hazard areas throughout the United States and its territories by producing Flood Hazard Boundary Maps, Flood Insurance Rate Maps, and Flood Boundary & Floodway Maps. Several areas of flood hazards are commonly identified on these maps, such as Special Flood Hazard Areas (SFHAs). Development may take place within mapped SFHAs, provided that it complies with local floodplain management regulations, which must meet the minimum federal requirements.

The City is a participating community in the NFIP. Therefore, the City is responsible for adopting a floodplain management ordinance that meets certain minimum requirements intended to reduce future flood losses. The City has adopted Development Regulations for SFHAs in the Municipal Code Sections 143.0145 and 143.0146. If development is proposed within one of the SFHA Zones, these existing regulations will apply.

4.7.2 State

4.7.2.1 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 SWRCB to implement the provisions of the federal CWA. The state of California is divided into nine regions governed by 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 other surface waters and groundwater basins, and establish water quality objectives for those waters.

4.7.2.2 NPDES Construction General Permit

The NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; SWRCB Order No. 2022-0057-DWQ, NPDES General Permit No. CAS000002) was adopted on September 8, 2022, and superseded Order 2009-0009-DWQ as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ.

Construction activities exceeding one acre (or meeting other applicable criteria) are subject to pertinent requirements under the Construction General Permit. Specific conformance requirements include: developing a Stormwater Pollution Prevention Plan (SWPPP) and keeping it up to date; complete and submitting a Notice of Intent (NOI) to the USEPA via the NPDES eReporting Tool (NeT); implement erosion and sediment controls and pollution prevention practices throughout the entire construction project; conducting required inspections to verify compliance with permit (inspections may only be conducted by a qualified person who has either: (1) completed the USEPA construction inspection course and passed the exam, or (2) holds a current construction inspection certification or license from a program that covers the same core material as EPA's inspection course); conducting routine maintenance and taking corrective action to fix problems with controls or discharges; completing documentation of all site inspections, dewatering inspections, and corrective actions; complying with turbidity monitoring requirements for dewatering discharges to sensitive waters (if applicable); and complying with any state, Tribal, or territory-specific requirements in Part 9 of the permit.

Site-specific measures vary with conditions such as risk level, proposed grading, and slope/soil characteristics, and detailed guidance for construction-related best management practices (BMPs) is provided in the permit and in related City standards.

4.7.2.3 NPDES Groundwater Permit

If construction activities entail the discharge of extracted groundwater into receiving waters, the applicant would be required to obtain coverage under the Groundwater Permit (Order No. R9-2008-0002, NPDES No. CAG919002). Conformance with this permit is generally applicable to all temporary and certain permanent groundwater discharges to surface waters, estuaries, and the Pacific Ocean, with some exceptions as noted in the permit fact sheet. Specific requirements for permit conformance include: (1) submittal of appropriate application materials and fees; (2) implementation of pertinent (depending on site-specific conditions) monitoring/testing, disposal alternative, and treatment programs; (3) provision of applicable notification to the associated local agency prior to discharging to a municipal storm drain system; (4) conformance with appropriate effluent standards (as outlined in the permit); and (5) submittal of applicable documentation (e.g., monitoring reports).

4.7.2.4 NPDES Municipal Permit

The most current MS4 Permit for Region 9, Order No. R9-2013-0001, was adopted on May 8, 2013, by the San Diego RWQCB and became effective on June 27, 2013. This Order was amended by the adoption of Order No. R9-2015-0001 on February 11, 2015 and the adoption of Order No. R9 2015-0100 on November 18, 2015. This is an update to the 2007 MS4 Permit, Order No. R9-2007-0001.

Updated City of San Diego Storm Water Standards (based on the Copermittees' Model BMP Design Manual) were adopted on January 3, 2018.

The MS4 Permit implements a regional strategy for water quality and related concerns and mandates a watershed-based approach that often encompasses multiple jurisdictions. The overall permit goals include: (1) providing a consistent set of requirements for all co-permittees; and (2) allowing the co-permittees to focus their efforts and resources on achieving identified goals and improving water quality, rather than just completing individual actions (which may not adequately reflect identified goals). Under this approach, the co-permittees are tasked with prioritizing their individual water quality concerns, as well as providing implementation strategies and schedules to address those priorities. MS4 Permit conformance entails considerations, such as receiving water limitations, waste load allocations, and numeric water quality based effluent limitations. Specific efforts to provide permit conformance and reduce runoff and pollutant discharges to the maximum extent practicable involve methods such as: (1) using jurisdictional planning efforts (e.g., discretionary general plan approvals) to provide water quality protection; (2) requiring coordination between individual jurisdictions to provide watershed-based water quality protection; (3) implementing appropriate BMPs, including low impact development (LID) measures, to avoid, minimize, and/or mitigate effects such as increased erosion and off-site sediment transport (sedimentation), hydromodification[1] and the discharge of pollutants in urban runoff; and (4) using appropriate monitoring/assessment, reporting, and enforcement efforts to ensure proper implementation, documentation, and (as appropriate) modification of permit requirements. The City has implemented a number of regulations to ensure conformance with these requirements, as outlined below under local standards.

4.7.2.5 NPDES Industrial Permit

Industrial facilities are subject to the requirements of SWRCB Water Quality Order No. 2014-0057-DWQ, NPDES Permit No. CAS000001, "Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities" (General Industrial Permit). This permit was adopted on April 1, 2014, and amended in 2015 and 2018. This permit currently applies to the operation of existing industrial facilities associated with nine broad categories of industrial activities and will apply to the operation of proposed new industrial facilities within those nine categories. The General Industrial Permit requires the implementation of storm water management measures and the development of a SWPPP. The 2018 permit included the federal Sufficiently Sensitive Test Method Ruling; TMDL implementation requirements; and statewide compliance options incentivizing on-site or regional stormwater capture and use.

4.7.3 Local

4.7.3.1 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 hydrologic units, 54 hydrologic areas, and 147 hydrologic subareas, extending from Laguna

[1] Hydromodification is generally defined in the Municipal Permit as the change in natural watershed hydrologic processes and runoff characteristics (interception, infiltration, and overland/groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport.

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 RWQCB prepared the Basin Plan, which 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.

4.7.3.2 City of San Diego Jurisdictional Runoff Management Plan

The City's Jurisdictional Runoff Management Plan (City 2024) is a total account of how the City of San Diego plans to protect and improve the water quality of rivers, bays, and the ocean in the region in compliance with the RWQCB permit referenced above. The document describes how the City incorporates storm water BMPs into land use planning, development review and permitting, City CIP project planning and design, and the execution of construction contracts.

4.7.3.3 Water Quality Improvement Plans

The MS4 Permit also requires the development of WQIPs that guide the Copermittees' jurisdictional runoff management programs toward achieving improved water quality in MS4 discharges and receiving waters. The San Diego Bay Watershed Management Area WQIP, originally accepted by the RWQCB in 2016, applies to the AMP area, which drains to the Otay River. The WQIPs further the CWA'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 the jurisdictional runoff management programs of the respective jurisdictions.

The San Diego River Watershed Management Area jurisdictions developed an update of the WQIP in 2021. The focus of the update was the incorporation of Famosa Slough Alternative TMDL. The update was submitted to the San Diego RWQCB with the WQIP 2019-2020 Annual Report provided in Appendix 5, Attachment 5B. The RWQCB issued an acceptance letter for the WQIP update on August 9, 2021.

4.7.3.4 Drainage Design Manual

Chapter 14, Article 2, Division 2 of the SDMC outlines Storm Water Runoff and Drainage Regulations, which apply to all development in the City, regardless of whether 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 LDM as Appendix B). The Drainage Design Manual provides a guide for designing drainage and drainage-related facilities for developments within the City.

4.7.3.5 Storm Water Standards Manual

The City's current Storm Water Standards Manual, most recently updated in 2021, provides information to project applicants on how to comply with the permanent and construction storm

water quality requirements in the City. Significant elements of the Storm Water Standards Manual include:

1. LID Best Management Practices Requirements
2. Source Control BMPs
3. BMPs Applicable to Individual Priority Development Project Categories
4. Treatment Control BMPs

Although the footprint of the LID BMPs can often fit into planned landscaping features, this requires early planning to ensure that the features are located in places where they can intercept the drainage and safely store the water without adverse effects to adjacent slopes, structures, roadways, or other features. The Storm Water Standards Manual also addresses "Hydromodification – Limitations on Increases of Runoff Discharge Rates and Durations." Hydromodification management requirements would dictate design elements in locations where downstream channels are susceptible to erosion from increases in storm water runoff discharge rates and durations. Future development projects proposed within areas draining to San Diego Bay would typically be exempt from hydromodification management requirements because of the location and hardened drainage systems. Exemptions from hydromodification management requirements shall adhere to the current City's Storm Water Standards Manual. Projects discharging into underground storm drains discharging directly to bays or the ocean are exempt, subject to conditions listed in the City's Storm Water Standards Manual.

The Storm Water Standards Manual also provides minimum requirements for construction site management, inspection, and maintenance of construction BMPs; monitoring of the weather and implementation of emergency plans as needed; and minimum performance standards, including the following: pollution prevention measures so that there would be no measurable increase of pollution (including sediment) in runoff from the site, no slope erosion, water velocity moving off-site must not be greater than pre-construction levels, and natural hydraulic features and riparian buffers preserved where possible. The City's current Storm Water Standards Manual is consistent with the Regional Best Management Practices Design Manual.

4.7.3.6 City of San Diego Grading Ordinance

The City Grading Ordinance (SDMC Section 142.0101 et seq.) incorporates a number of requirements related to hydrology and water quality, including BMPs necessary to control storm water pollution from sources such as erosion/sedimentation and construction materials during project construction and operation. Specifically, these include elements related to slope design, erosion/sediment control, revegetation requirements, and material handling/control.

4.7.3.7 City of San Diego General Plan

The General Plan presents goals and policies for storm water infrastructure in the Public Facilities, Services, and Safety Element, and presents goals and policies for open space (including floodplain management) and urban runoff management in the Conservation Element.

4.8 Land Use

4.8.1 Federal

4.8.1.1 Airport Airway Improvement Act

FAA AIP funding for an airport development project may not be approved unless the Secretary of Transportation receives satisfactory written assurance that appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal aircraft operations, including the landing and takeoff of aircraft.

4.8.2 State

4.8.2.1 General Plan Consistency with the Airport Land Use Compatibility Plan

Public Utilities Code Section 21675 requires each ALUC to formulate ALUCPs. California Government Code Section 65302.3 further requires that general plans and any applicable specific plan be consistent with ALUCPs. In addition, general plans and applicable specific plans must be amended to reflect amendments to the ALUCP.

4.8.2.2 Climate Change Scoping Plan

Refer to Section 4.4.2.15 for a discussion of CARB's Climate Change Scoping Plan.

4.8.3 Local

The following discussion describes local land use plans, ordinances, and regulations that apply to the proposed project, including the General Plan, the OMCP, relevant SDMC regulations, the City's MSCP SAP, the Brown Field Municipal ALUCP, and San Diego Forward: The Regional Plan.

4.8.3.1 City of San Diego General Plan

A comprehensive update of the General Plan was adopted in 2008, incorporating the City of Villages strategy, which in turn was developed and adopted as part of the Strategic Framework Element in 2002. The Strategic Framework Element represented the City's new approach for shaping how the City will grow while attempting to preserve the character of its communities and its most treasured natural resources and amenities. It was developed to provide the overall structure to guide the General Plan update and future CPUs and amendments, as well as the implementation of an action plan.

Under the City of Villages strategy, the General Plan aims to direct new development projects away from natural undeveloped lands into already urbanized areas and/or areas where conditions allow the integration of housing, employment, civic, and transit uses. It is a development strategy that mirrors regional planning and smart growth principles intended to preserve remaining open space and natural habitat and focus development in areas with available public infrastructure.

The General Plan includes 10 elements intended to provide guidance for future development. The elements applicable to the proposed project are listed here and discussed in more detail below: (1) Land Use and Community Planning Element; (2) Mobility Element; (3) Public Facilities, Services, and Safety Element; (4) Conservation Element; (5) Noise Element; and (6) Historic Preservation Element.

Land Use and Community Planning Element

The Land Use and Community Planning Element provides overarching policies to integrate the City of Villages strategy and guides the provision of public facilities while accommodating planned growth. Policies within this element, in combination with other elements, also ensure consistency with zoning regulations (e.g., SDMC).

The Land Use and Community Planning Element contains two goals related to airport land use compatibility. These goals are to provide:

- Protection of the health, safety, and welfare of persons within an airport influence area by minimizing the public's exposure of high levels of noise and risk of aircraft-related accidents.

- Protection of public use of airports and military air installations from the encroachment of incompatible land uses within an airport influence area that could unduly constrain airport operations.

Airports affect future land uses and, at the same time, land uses can affect airports in that incompatible land uses can restrict airport operations or lead to the closure of an airport. As discussed in further detail in Section 4.9.7, the SDCRAA Board, as the ALUC, prepared the ALCUP for SDM. The ALUCP addresses compatibility between airports and surrounding future land uses by analyzing noise, overflight, safety, and airspace protection concerns to minimize the public's exposure to excessive noise and safety hazards. Since the ALUC does not have land use authority, however, the City implements the ALUCP through land use plans, development regulations, and zoning ordinances. When an ALCUP is amended or updated, the City is required to submit the land use plans (General Plan and community plans) that are within the AIA to the ALUC for consistency determination. Similarly, when a change to the General Plan is proposed, the City is required to submit the proposed change to the ALUC for consistency determination.

Mobility Element

The Mobility Element sets forth policies that promote a balanced, multi-modal transportation network while minimizing environmental and neighborhood impacts. The Mobility Element contains six goals related to airports. These goals are to provide:

- An air transportation system that fosters economic growth.

- Adequate capacity to serve the forecasted passenger and cargo needs at existing airports.

- An air transportation system that is integrated with a multi-modal surface transportation system that efficiently moves people and goods.

- An international airport to serve the region's long-term air transportation and economic needs.
- General aviation airport operations that support public safety, law enforcement, and aviation training activities and promote adjacent commercial and industrial uses.
- Military aviation installations that support national defense and regional economic needs.

Public Facilities, Services, and Safety Element

The Public Facilities, Services, and Safety Element is directed at providing adequate public facilities and services through policies that address public financing strategies, public and developer financing responsibilities, prioritization, and the provision of specific facilities and services that must accompany growth. The policies within this Element also apply to fire-rescue, police, wastewater collection and treatment, storm water infrastructure, water supply and distribution, waste management, libraries, schools, public utilities, and disaster preparedness.

Conservation Element

The Conservation Element contains policies to guide the conservation of resources that are fundamental components of San Diego's environment, that help define the City's identity, and that are relied upon for continued economic prosperity. San Diego's resources include, but are not limited to water, land, air, biodiversity, minerals, natural materials, recyclables, topography, viewsheds, and energy.

Noise Element

The focus of the Noise Element is to minimize excessive noise effects and improve the quality of life of people working and living in the City. The Noise Element identifies a goal of minimizing excessive aircraft-related noise on residential and other noise-sensitive land uses. While the Noise Element articulates the City's goals, the enforcement mechanism to control noise is the City's Noise Ordinance, which is discussed in Section 4.10.

Historic Preservation Element

The Historic Preservation Element guides the preservation, protection, restoration, and rehabilitation of historical and cultural resources.

4.8.3.2 Otay Mesa Community Plan

The OMCP includes a set of goals, policies, and recommendations that represent a shared vision for the future of the Otay Mesa community. The plan was most recently updated in 2014. The OMCP includes the same nine elements contained in the City's 2008 General Plan, with goals and policies for each element. The nine elements are: Land Use; Mobility; Urban Design; Economic Prosperity; Public Facilities, Services, and Safety; Recreation; Conservation; Noise; and Historic Preservation. Procedures for implementation of the goals and policies are also set forth.

One of the goals of the OMCP is to ensure a land use pattern that is compatible with existing and planned airport operations. The plan recognizes the potential for the Airport to be a major economic driver for the area due to its size and proximity to both the border and downtown San Diego. It also notes the importance of the non-aviation industrial uses surrounding the Airport that economically support its continued operation. The plan therefore seeks to ensure that these industrial uses are retained as the area is developed. The plan recognizes that land use policies for the AIAs are contained in the ALUCP and implemented by the Airport Land Use Compatibility Overlay Zone of the SDMC. The plan acknowledges that noise generated by the Airport is a concern of the community and emphasizes that the guidance found in the ALUCP should be followed when planning future development to ensure compatible land use and minimize the impact to residential areas.

4.8.3.3 Climate Action Plan

Refer to Section 4.4.3.3 for a discussion of the City's CAP.

4.8.3.4 San Diego Municipal Code

Airports

Chapter 6 Article 8 Division 1, *Airports*, of the SDMC provides rules and regulations governing the conduct of operations at all City-owned or controlled airports.

4.8.3.5 Land Development Code Regulations

Chapters 11 through 15 of the SDMC are referred to as the LDC, as they contain the City's planning, zoning, subdivision, and building regulations that regulate how land is to be developed and used within the City. The LDC contains Citywide base zones that specify permitted land uses, residential density, floor area ratio (FAR), and other development requirements for given zoning classifications; as well as overlay zones and supplemental regulations that provide additional development requirements. Development under the proposed AMP area is subject to the development regulations of the LDC.

Airport Land Use Compatibility Overlay Zone

The purpose of the Airport Land Use Compatibility Overlay Zone (SDMC Sections 132.1501 through 132.1555) is to implement the adopted ALUCPs, in accordance with state law, as applicable within City property. The intent of these supplemental regulations is to ensure that new development located within an AIA is compatible with respect to airport-related noise, public safety, airspace protection, and aircraft overflight areas.

General Development Regulations

Chapter 14 of the LDC includes the general development regulations, supplemental development regulations, building regulations, and electrical/plumbing/mechanical regulations that govern all aspects of project development. The grading, landscaping, parking, signage, fencing, and storage requirements are all contained within Chapter 14, General Regulations. Also included within the general regulations of Chapter 14 are the ESL Regulations, discussed below.

Environmentally Sensitive Lands Regulations

The purpose of the ESL Regulations (SDMC Sections 143.0101 through 143.0160) is to protect, preserve, and, where damaged restore, the ESLs of the City and the viability of the species supported by those lands. These regulations are intended to ensure that development occurs in a manner that protects the overall quality of the resources and the natural and topographic character of the area, encourages a sensitive form of development, retains biodiversity and interconnected habitats, maximizes physical and visual public access to and along the shoreline, and reduces hazards due to flooding in specific areas while minimizing the need for construction of flood control facilities. These regulations are intended to protect the public health, safety, and welfare while employing regulations that are consistent with sound resource conservation principles and the rights of private property owners.

ESLs include sensitive biological resources (including wetlands), steep hillsides, coastal beaches, sensitive coastal bluffs, and SFHAs. Development on a site containing ESLs requires a Site Development Permit in accordance with Section 126.0502 of the SDMC.

Historical Resources Regulations

The purpose of the City's Historical Resources Regulations (contained in Chapter 14, Article 3, Division 2 of the LDC) is to protect, preserve, and, where damaged, restore the historical resources of San Diego, which include historical buildings, historical structures or objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties/ tribal cultural resources. These regulations are intended to ensure that development occurs in a manner that protects the overall quality of historical resources. It is further the intent of these regulations to protect the educational, cultural, economic, and general welfare of the public, while employing regulations that are consistent with sound historical preservation principles and the rights of private property owners. The Historical Resources Regulations require that development affecting historical resources or historical districts shall provide full mitigation for the impact to the resource, in accordance with the Historical Resources Guidelines of the LDM, as a condition of approval. If development cannot, to the maximum extent feasible, comply with the development regulations for historical resources, then a project would require a Site Development Permit in accordance with Section 126.0502 of the SDMC.

4.8.3.6 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 SAPs, which describe specific implementing mechanisms.

The City of San Diego's MSCP SAP was approved in March 1997. The MSCP SAP is a plan and process for the issuance of permits under the federal and state FESA and CESA and the California Natural Communities Conservation Planning Act of 1991. The primary goal of the MSCP SAP 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 IA with USFWS and 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 SAP. The IA became effective on July 17, 1997, and allows the City to issue Incidental Take Authorizations 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.

4.8.3.7 Multi-Habitat Planning Area

The MHPA is the area within which the permanent MSCP preserve will be assembled and managed for its biological resources. Input from responsible agencies and other interested participants resulted in the adoption of the City's MHPA in 1997. The City's MHPA areas are defined by "hard-line" limits, with limited development permitted based on the development area allowance of the OR-1-2 zone [open space residential zone].

Private land entirely within the MHPA is allowed only up to 25 percent development in the least sensitive area per the City's MSCP SAP. Should more than 25 percent development be desired, an MHPA boundary line adjustment may be proposed. The City's MSCP SAP states that adjustments to the MHPA boundary line are permitted without the need to amend the City's SAP, 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 Regional 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 NE 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 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.

4.8.3.8 MHPA Land Use Adjacency Guidelines

To address the integrity of the MHPA and mitigate indirect impacts to the MHPA, guidelines were developed to manage land uses adjacent to the MHPA. The MHPA Land Use Adjacency Guidelines are intended to be incorporated into the MMRP and/or applicable permits during the development review phase of a project. These guidelines address the issues of drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading/land development.

Drainage

All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must 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 should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should 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 by-products such as manure, or 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 should 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 should be provided. Where applicable, this requirement should be incorporated into leases on publicly owned property as leases come up for renewal.

Lighting

Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should 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 should be designed to minimize noise impacts. Berms or walls should 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 must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should 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.

Invasive Species

No invasive non-native plant species shall 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) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zone 2 may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife

corridors require it to be located outside of the MHPA. Brush management zones will not be greater in size than what is currently required by the City's SDMC.

The amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards (i.e., to avoid the nesting season and preferentially remove non-natives over natives) and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new developments, regardless of the ownership, the brush management in the Zone 2 area will be the responsibility of a homeowners' association or other private party.

Grading/Land Development

Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.

4.8.3.9 Framework Management Plan

The MSCP SAP Framework Management Plan, included in Section 1.5.1 of the City's MSCP SAP, sets management goals and objectives to maintain and enhance biological diversity in the region and conserve viable populations of endangered, threatened, and key sensitive species and their habitats, thereby preventing local extirpation and ultimate extinction, and minimizing the need for future listings, while enabling economic growth in the region. Section 1.5.2 of the SAP lists general management directives that apply throughout the SAP area related to mitigation; restoration; public access, trails, and recreation; litter/trash and materials storage; adjacency management issues; invasive exotics control and removal; and flood control.

The AMP area is identified within Section 1.2.3 of the SAP as being in an "Urban Area" and as containing "Urban Habitat Lands". The urban habitat areas within the City's MHPA are primarily concentrated in existing urbanized locations and consist mainly of vernal pool areas, urbanized canyons and stream areas, and associated hillsides which support native habitats and species and promote wildlife movement. Specific and overall management policies and directives for Urban Habitat Lands are listed in SAP Section 1.5.7. Future development within areas identified as Urban Habitats is required to support the overall goals and objectives for urban habitat lands as follows:

> The optimum future condition for the urban habitat lands scattered throughout the City of San Diego is as a system of canyons that provide habitat for native species remaining in urban areas; i.e., as "stepping stones" for migrating birds and those establishing new territories and providing environmental educational opportunities for urban dwellers of all ages. The system of urban habitat canyons and natural open space throughout the City provides important areas for people to enjoy and learn about the natural world and local environment. These areas also afford visual beauty and psychological relief from urbanization, while supporting habitat for the maintenance of both common and rare species. These habitats; surrounded by development and modified by urban edge effects; also present unique opportunities for research into habitat fragmentation, viability, and urban wildlife ecology.

4.8.3.10 Brown Field Municipal Airport Land Use Compatibility Plan

The SDCRAA serves as the ALUC for San Diego County. The ALUC is responsible for adopting ALUCPs for 16 public-use and military airports in San Diego County. ALUCPs provide guidance on appropriate land uses surrounding the airport to protect the health and safety of people and property within the vicinity of an airport, as well as the public in general. An ALUCP contains policies and criteria that address compatibility between airports and future land uses that surround them by addressing noise, overflight, safety, and airspace protection concerns to minimize the public's exposure to excessive noise and safety hazards within the AIA for each airport over a 20-year horizon. The City implements the adopted ALUCPs with Airport Land Use Compatibility Overlay Zones.

The Brown Field Municipal ALUCP was adopted on January 25, 2010, and amended on December 20, 2010. It establishes the AIA for the Airport, which serves as the boundary for the ALUCP and is divided into two review areas, as shown on Figure 2-12. Review Area 1 encompasses locations exposed to aircraft noise levels of 60 dB CNEL or greater together with the outer boundary of all safety zones. All policies and standards in the ALUCP apply within Review Area 1. Review Area 2 is defined by the combination of the airspace protection and overflight boundaries beyond Review Area 1. Only airspace protection and overflight policies and standards apply within Review Area 2. The current ALUCP is based on the FAA-approved 2005 ALP for SDM. The 2005 ALP was accepted by the Caltrans Division of Aeronautics for airport land use compatibility purposes in July 2005, and again in 2008.

The ALUCP contains policies and criteria that address land use compatibilities concerning noise and safety aspects of airport operations and land uses, heights of buildings, residential densities and intensities, and the disclosure of aircraft overflight. The ALUC has no authority over airport operations. The adopted ALUCP contains policies that limit residential uses in areas experiencing noise above 60 CNEL by placing conditions on residential uses within the 60 CNEL contour. Residential uses in such areas may require sound attenuation to reduce interior noise levels to 45 dBA. Since the ALUC does not have land use authority, the City implements the ALUCPs through land use plans, development regulations, and zoning regulations. The City is required to submit discretionary and ministerial development applications within an AIA to the ALUC until the City adopts regulations implementing the ALUCP and the ALUC determines the City's zoning, development regulations, and land use plans consistent with the ALUCP, or the City Council takes action to overrule the ALUC with a two-thirds vote.

4.8.3.11 San Diego Forward: The Regional Plan

As discussed in Section 4.4.3.1, the Regional Plan, prepared and adopted by SANDAG in 2021, 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 supports healthy communities, a protected environment, a vibrant economy, and mobility choices for the region's residents over the next 30 years. It is a comprehensive roadmap that integrates the RTP, the SCS, and the Regional Comprehensive Plan into one document to chart the region's future growth and transportation investments.

4.8.3.12 Build Better SD

Build Better SD is a citywide initiative to support the City's equity, access, conservation, and sustainability goals. This initiative sets clear policies intended to create more opportunities for innovative, culturally relevant, and interactive public spaces by prioritizing investments in areas where the needs are greatest – streamlining the delivery of more infrastructure, to more people, more quickly. City Council adopted the initiative on Aug. 1, 2022.

4.9 Noise

4.9.1 Federal

4.9.1.1 The Control and Abatement of Aircraft Noise and Sonic Boom Act of 1968 and the Noise Control Act of 1972

The Control and Abatement of Aircraft Noise and Sonic Boom Act of 1968 established regulations to abate noise and authorized the FAA to prescribe standards for the measurement of aircraft noise. The Noise Control Act of 1972 amended the Control and Abatement of Aircraft Noise and Sonic Boom Act of 1968 to add consideration of the protection of public health and welfare and to add the USEPA to the rulemaking process for aircraft noise and sonic boom standards.

4.9.1.2 Aviation Safety and Noise Abatement Act of 1979

This act (as amended) aids airport operators in the preparation and undertaking of noise compatibility programs, helps to provide assistance to ensure continued safety in aviation, and provides assistance to aircraft operators to aid in complying with noise standards. Compatible land use essentially means the use of the land is normally compatible with the outdoor noise environment at the location (14 CFR Section 150.7).

4.9.1.3 Airport and Airway Improvement Act of 1982

This act authorizes funding for noise mitigation and noise compatibility planning and projects, and establishes certain requirements related to noise-compatible land use for federally funded airport development projects.

4.9.1.4 Airport Noise and Capacity Act of 1990

The Airport Noise and Capacity Act of 1990 mandated the phaseout of Stage 2 jet aircraft over 75,000 pounds and established requirements regarding airport noise and access restrictions for Stage 2 and 3 aircraft.

4.9.1.5 Section 506 of the FAA Reauthorization Act of 2019

The FAA Reauthorization Act of 2018 was signed into law on October 5, 2018. It extended FAA's funding and authorities through Fiscal Year 2023. The bill includes important legislative changes related to increasing the safety and pace of unmanned aircraft system integration, expediting the

financing and development of airport capital projects, directing the FAA to advance leadership in the field of international supersonic aircraft policies, addressing aircraft noise, and ensuring safe lithium battery transport. The FAA Reauthorization Act of 2023 is currently being developed.

4.9.2 State

4.9.2.1 California Noise Control Act of 1973

Sections 46000 through 46080 of the California H&SC, known as the California Noise Control Act of 1973, find that excessive noise is a serious hazard to the public health and welfare, and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The Act also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The Act declares that the state of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

4.9.2.2 California Noise Insulation Standards (California Residential Code Title 24, Part 2.5, Appendix K – Sound Transmission)

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for hotels, motels, dormitories, and multi-family residential buildings (CBSC 2022a). Title 24 requires that residential structures be designed to prevent the intrusion of exterior noise so that the interior noise, with windows closed, attributable to exterior sources shall not exceed 45 CNEL in any habitable room. The regulations also specify that acoustical studies must be prepared whenever a multi-family residential building or structure may be exposed to exterior noise levels of 60 CNEL or greater. Such acoustical analysis must demonstrate that the residences have been designed to limit intruding noise to a maximum interior noise level of 45 CNEL.

4.9.2.3 California Green Building Standards Code (CALGreen)

Section 5.507.4 of the 2022 CALGreen (CBSC 2022b) establishes requirements for acoustical control in non-residential buildings. The standards require that wall and roof-ceiling assemblies making up the building envelope shall have a Sound Transmission Class (STC) value of at least 50 or a composite Outdoor-Indoor STC (OITC) rating of no less than 40, and exterior windows shall have a minimum STC of 40 or OITC of 30 for buildings within: (1) the 65 CNEL noise contour of an airport; or (2) the 65 CNEL or L_{DN} noise contour of a freeway or expressway, railroad, industrial source, or fixed-guideway source. Wall and floor-ceiling assemblies separating tenant spaces and public places shall have an STC of at least 40. Additionally, Section A5.507.5 requires that classrooms have a maximum interior background noise level of no more than 45 dBA L_{EQ}.

4.9.3 Local

4.9.3.1 City of San Diego General Plan

The Noise Element of the City of San Diego General Plan (City 2015b) includes the following policies intended to minimize noise through standards, site planning, and noise mitigation.

1. Policy NE-A.1: Separate excessive noise-generating uses from residential and other noise-sensitive land uses with a sufficient spatial buffer of less sensitive uses.

2. Policy NE-A.2: Assure the appropriateness of proposed developments relative to existing and future noise levels by consulting the guidelines for noise-compatible land use (shown on Table NE-3) to minimize the effects on noise-sensitive land uses.

3. Policy NE-A.3: Limit future residential and other noise-sensitive land uses in areas exposed to high levels of noise.

4. Policy NE-A.4: Require an acoustical study consistent with Acoustical Study Guidelines (Table NE-4) for proposed developments in areas where the existing or future noise level exceeds or would exceed the "compatible" noise level thresholds as indicated on the Land Use -Noise Compatibility Guidelines (Table NE-3), so that noise mitigation measures can be included in the proposed project design to meet the noise guidelines.

5. Policy NE-A.5: Prepare noise studies to address existing and future noise levels from noise sources that are specific to a community when updating community plans.

In addition, the Noise Element includes Land Use - Noise Compatibility Guidelines which identify the limits for acceptable noise levels for different land use categories, as illustrated in Table 4-2, *City of San Diego Land Use Noise Compatibility Guidelines.*

Table 4-2
City of San Diego Land Use Noise Compatibility Guidelines[1]

Land Use Category	Exterior Noise Exposure (dBA CNEL)				
	<60	60-65	65-70	70-75	75+
Parks and Recreational					
Parks, Active and Passive Recreation					
Outdoor Spectator Sports, Golf Courses; Water Recreational Facilities; Indoor Recreation Facilities					
Agricultural					
Crop Raising & Farming; Community Gardens, Aquaculture, Dairies; Horticulture Nurseries & Greenhouses; Animal Raising, Maintain & Keeping; Commercial Stables					
Residential					
Single Dwelling Units; Mobile Homes		45			
Multiple Dwelling Units		45	45		
Institutional					
Hospitals; Nursing Facilities; Intermediate Care Facilities; K-12 Educational Facilities; Libraries; Museums; Child Care Facilities		45			

Land Use Category	Exterior Noise Exposure (dBA CNEL)				
	<60	60-65	65-70	70-75	75+
Other Educational Facilities including Vocational/Trade Schools and Colleges, and Universities)		45	45		
Cemeteries					
Retail Sales					
Building Supplies/Equipment; Groceries; Pets & Pet Supplies; Sundries, Pharmaceutical, & Convenience Sales; Apparel & Accessories			50	50	
Commercial Services					
Building Services; Business Support; Eating & Drinking; Financial Institutions; Maintenance & Repair; Personal Services; Assembly & Entertainment (includes public and religious assembly); Radio & Television Studios; Golf Course Support			50	50	
Visitor Accommodations		45	45	45	
Offices					
Business & Professional; Government; Medical, Dental & Health Practitioner; Regional & Corporate Headquarters			50	50	
Vehicle and Vehicular Equipment Sales and Services Use					
Vehicle Repair & Maintenance; Vehicle Sales & Rentals; Vehicle Equipment & Supplies Sales & Rentals; Vehicle Parking					
Wholesale, Distribution, Storage Use Category					
Equipment & Materials Storage Yards; Moving & Storage Facilities; Warehouse; Wholesale Distribution					
Industrial					
Heavy Manufacturing; Light Manufacturing; Marine Industry; Trucking & Transportation Terminals; Mining & Extractive Industries					
Research & Development				50	

	Compatible	Indoor Uses	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level.
		Outdoor Uses	Activities associated with the land use may be carried out.
45, 50	Conditionally Compatible	Indoor Uses	Building structure must attenuate exterior noise to the indoor noise level indicated by the number (45 or 50) for occupied areas.
		Outdoor Uses	Feasible noise mitigation techniques should be analyzed and incorporated to make the outdoor activities acceptable.
	Incompatible	Indoor Uses	New construction should not be undertaken.
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.

Source: City 2015b)

[1] Compatible noise levels and land use definitions reflect amendments to the City's General Plan Noise Element approved in 2015.

As shown, the "compatible" noise level for noise-sensitive receptors, including single- and multi-family residential, is 60 dBA CNEL. Compatibility indicates that standard construction methods will attenuate exterior noise to an acceptable indoor noise level, and people can carry out outdoor activities with minimal noise interference.

Exterior noise levels ranging between 60 and 65 dBA CNEL are considered "conditionally compatible" for single-family units, and between 65 and 70 dBA CNEL for multiple units. The Noise Element also states (Section B, Motor Vehicle Traffic Noise) that although not generally considered compatible, the City conditionally allows multi-family and mixed-use residential uses up to 75 dBA CNEL with a requirement to include attenuation measures to ensure an interior noise level of 45 dBA CNEL where a Community Plan allows multi-family and mixed-use.

Park uses are considered compatible in areas up to 70 dBA CNEL and conditionally compatible in areas between 70 and 75 dBA CNEL.

The Noise Element also addresses aircraft noise. Policy NE-D.4 discourages outdoor uses in areas where people could be exposed to prolonged periods of high aircraft noise levels greater than the 65 dBA CNEL airport noise contour. Policy NE-D.5 is to minimize excessive aircraft noise from aircraft operating at Brown Field Municipal Airport to surrounding residential areas. Lastly, Policy NE-D.7 limits future uses within AIAs when the noise policies in the compatibility plans are more restrictive for uses affected by aircraft noise than shown in Table 4-1.

4.9.3.2 City of San Diego Municipal Code Noise Abatement and Control Ordinance

SDMC Chapter 5 Article 9.5, Noise Abatement and Control, declares that the making, creation, or continuance of excessive noises are detrimental to the public health, comfort, convenience, safety, welfare, and prosperity of the residents of the City. Section 59.5.0401 establishes sound level limits. The exterior noise limits for each land use classification are summarized in Table 4-3, *City of San Diego Table of Applicable Noise Limits*. One-hour average sound levels are not to exceed the applicable limit. The noise subject to these limits is defined as that part of the total noise at the specified location that is due solely to the action of said person.

Per the SDMC Section 59.5.0404, construction noise levels measured at or beyond the property lines of any property zoned residential shall not exceed an average sound level greater than 75 dBA during the 12-hour period from 7:00 a.m. to 7:00 p.m. Further, construction activity is prohibited between the hours of 7:00 p.m. of any day to 7:00 a.m. of the following day, or on legal holidays as specified in SDMC Section 21.04. Exceptions are allowed and subject to a permit granted by the Noise Abatement and Control Administrator.

Table 4-3
CITY OF SAN DIEGO TABLE OF APPLICABLE NOISE LIMITS

Land Use Zone	Time of Day	One-hour Average Sound Level (dBA)
Single Family Residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multi-Family Residential (up to a maximum density of 1/2000)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45

Land Use Zone	Time of Day	One-hour Average Sound Level (dBA)
All other Residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Industrial or Agricultural	Anytime	75

Source: City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits

4.9.3.3 Brown Field Municipal Airport Land Use Compatibility Plan

Properties within and surrounding the AMP area are located within the AIA for SDM and are exposed to noise from aircraft operations at SDM. In addition to the policies and criteria addressing land use compatibilities, including building heights and densities, the ALUCP contains policies and criteria concerning noise. The adopted ALUCP contains policies that place conditions on residential uses at and above the 60 CNEL contour. Figures 4-1a and 4-1b, *SDM ALUCP Airport Noise Compatibility Criteria,* provide the allowable noise levels by land use for SDM. Section 3.3.6 of the ALUCP specifies that noise associated with aircraft ground operations, such as pre-flight engine run-ups and taxiing of aircraft to and from runways, is not subject to regulation under the ALUCP, but is rather addressed by the policies of local agencies, in this case the City.

4.10 Public Services and Facilities

4.10.1 Local

4.10.1.1 City of San Diego Municipal Code

The City requires payment of Development Impact Fees (DIFs) to collect a proportional fair share cost of capital improvements needed to offset the impact of the development (SDMC Section 142.0640). DIFs are based on community-specific financing plans completed when Community Plans are updated. Financing plans were formerly known as Public Facilities Financing Plans and are now referred to as Impact Fee Studies (IFS). The IFS sets community-level priorities for facility financing and ensures that new development pays the proportionate fair share of public facilities costs through the payment of DIFs.

4.10.1.2 City of San Diego General Plan

Public Facilities, Services, and Safety Element

The General Plan Public Facilities, Services, and Safety Element, most recently updated in January 2023, includes policies that address the financing, development, and management of public facilities and infrastructure, including transportation, storm drains, parks and recreation, fire-rescue, police, and libraries.

Table III-1

Noise Compatibility Criteria

Land Use Category [1]	Exterior Noise Exposure (dB ***CNEL)***			
Note: Multiple categories may apply to a project	60–65	65–70	70–75	75-80
Agricultural and Animal-Related				
horse stables; livestock breeding or farming	A	A	A	
nature preserves; wildlife preserves				
interactive nature exhibits	A			
zoos	A	A		
agriculture (except residences and livestock); greenhouses; fishing				A
Recreational				
children-oriented neighborhood parks; playgrounds	A			
campgrounds; recreational vehicle/motor home parks				
community parks; regional parks; golf courses; tennis courts; athletic fields; outdoor spectator sports; fairgrounds; water recreation facilities		A		
recreation buildings; gymnasiums; club houses; athletic clubs; dance studios		50	50	
Public				
outdoor amphitheaters	A			
children's schools (K-12); day care centers (>14 children)	45			
libraries	45			
auditoriums; concert halls; indoor arenas; places of worship	45	45		
adult schools; colleges; universities [2]	45	45		
prisons; reformatories		50		
public safety facilities (e.g., police, fire stations)		50	50	
cemeteries; cemetery chapels; mortuaries		45 A	45 A	
Residential, Lodging, and Care				
residential (including single-family, multi-family, and mobile homes); family day care homes (≤14 children)	45			
extended-stay hotels; retirement homes; assisted living; hospitals; nursing homes; intermediate care facilities	45			
hotels; motels; other transient lodging [3]	45	45	45	
Commercial and Industrial				
office buildings; office areas of industrial facilities; medical clinics; clinical laboratories; radio, television, recording studios		50	50	
retail sales; eating/drinking establishments; movie theaters; personal services		50	50 B	
wholesale sales; warehouses; mini/other indoor storage			50 C	

Source: Brown Field Airport Land Use Compatibility Plan, 2010

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SDM ALUCP Airport Noise Compatibility Criteria

Figure 4-1a

Table III-1 Continued

Noise Compatibility Criteria

Land Use Category [1] *Note: Multiple categories may apply to a project*	Exterior Noise Exposure (dB ***CNEL)*** 60–65	65–70	70–75	75-80
industrial; manufacturing; research & development; auto, marine, other sales & repair services; car washes; gas stations; trucking, transportation terminals			50 C	
extractive industry; utilities; road, rail rights-of-way; outdoor storage; public works yards;automobile parking; automobile dismantling; solid waste facilities				50 C
animal shelters/kennels	50	50	50	

Land Use	Acceptability	Interpretation/Comments
	Compatible	*Indoor Uses:* Standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor community noise equivalent level (*CNEL*) *Outdoor Uses:* Activities associated with the land use may be carried out with essentially no interference from aircraft noise
45 50	*Conditional* [4]	*Indoor Uses:* Building structure must be capable of attenuating exterior noise to the indoor *CNEL* indicated by the number; standard construction methods will normally suffice *Outdoor Uses:* *CNEL* is acceptable for outdoor activities, although some noise interference may occur.
A B C	*Conditional* [4]	*Indoor or Outdoor Uses:* A Caution should be exercised with regard to noise-sensitive outdoor uses; these uses are likely to be disrupted by aircraft noise events; acceptability is dependent upon characteristics of the specific use [5] B Outdoor dining or gathering places incompatible above 70 dB *CNEL* C Sound attenuation must be provided for associated office, retail, and other noise-sensitive indoor spaces sufficient to reduce exterior noise to an interior maximum of 50 dB *CNEL*
	Incompatible	Use is not compatible under any circumstances.

Notes:

1 Land uses not specifically listed shall be evaluated, as determined by the *ALUC*, using the criteria for similar uses.

2 Applies only to classrooms, offices, and related indoor uses. Laboratory facilities, gymnasiums, outdoor athletic facilities, and other uses to be evaluated as indicated for those land use categories.

3 Lodging intended for stays by an individual person of no more than 25 days consecutively and no more than 90 days total per year; facilities for longer stays are in the extended- stay hotel category.

4 An *avigation easement* is required for any project situated on a property lying within the projected 65 dB *CNEL* noise contour. See Policy 2.11.5 and Policy 3.3.3(d).

5 Noise-sensitive land uses are ones for which the associated primary activities, whether indoor or outdoor, are susceptible to disruption by loud noise events. The most common types of noise-sensitive land uses include, but are not limited to, the following: residential, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, child-care facilities, and certain types of passive recreational parks and open space.

Source: San Diego County Regional Airport Authority, October 2009.

Prepared by: Ricondo & Associates, Inc., January 2010.

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Source: Brown Field Airport Land Use Compatibility Plan, 2010

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SDM ALUCP Airport Noise Compatibility Criteria (cont.)

Figure 4-1b

Police Protection

As specified in the General Plan, Public Facilities, Services, and Safety Element, Policy PF-E.2, the City's goal is to maintain average response time goals as development and population growth occurs. Average response time guidelines are as follows:

- Priority E Calls (imminent threat to life) within 7 minutes
- Priority 1 Calls (serious crimes in progress) within 12 minutes
- Priority 2 Calls (less serious crimes with no threat to life) within 30 minutes
- Priority 3 Calls (minor crimes/requests that are not urgent) within 90 minutes
- Priority 4 Calls (minor requests for police service) within 90 minutes

Fire Protection

The SDFD has an active program that promotes the clearing of canyon vegetation away from structures in accordance with SDMC Section 142.0412 and the SDFD's Canyon Fire Safety guidelines and policies related to brush management. The City thins brush on City property within 100 horizontal feet of a previously conforming structure unless a site-specific report, which indicates that a greater distance is necessary, is approved by the SDFD (per SDMC Section 142.0412(i) or a previously recorded entitlement requires a width more or less than the standard 100 feet). Other fire prevention measures include adopting safety codes and an aggressive brush management program. Citywide fire service goals, policies, and standards are in the Public Facilities, Services, and Safety Element of the General Plan and the SDFD'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 (per Policy PF-D.1):

- 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 1-minute dispatch time, 1.5-minute company turnout time, and 5-minute drive time in the most populated areas.
- 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 five 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 (per Policy PF-D.2), fire unit deployment performance measures are established based on population density zones and are provided in Table 4-4, *Development Measures for San Diego City Growth by Population Density per Square Mile*.

Table 4-4
DEPLOYMENT MEASURES FOR SAN DIEGO CITY GROWTH BY POPULATION DENSITY PER SQUARE MILE

	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 Area Permanent Open Space Areas
1st Due Travel Time	5	12	20	10
Total Reflex Time	7.5	14.5	22.5	12.5
1st Alarm Travel Time	8	16	24	15
1st Alarm Total Reflex	10.5	18.5	26.5	17.5

Source: City 2023

The following population-based performance measures are used to plan for needed facilities (per Policy PF-D.2). Where more than one 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 4-5, *Deployment Measures to Address Future Growth by Population Clusters*) and the need for fire stations.

Table 4-5
DEPLOYMENT MEASURES TO ADDRESS FUTURE GROWTH BY POPULATION CLUSTERS

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 people	>15 minutes

Source: City 2008

4.11 Public Utilities

4.11.1 Federal

4.11.1.1 Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), passed by Congress in 1974, authorizes the federal government to set national standards for drinking water. These National Primary Drinking Water Regulations protect against both naturally occurring and man-made contaminants. Enforceable maximum contaminant levels for drinking water also resulted from the SDWA. All water providers in the United States, excluding private wells serving fewer than 25 people, must treat water to remove contaminants.

The 1986 amendments to the SDWA and the 1987 amendments to the CWA established the USEPA as the primary authority for water programs throughout the country. The USEPA is the federal agency responsible for providing clean and safe surface water, groundwater, and drinking water, and protecting and restoring aquatic ecosystems.

4.11.2 State

4.11.2.1 Senate Bills 221 and 610

SB 221 and SB 610 went into effect in January 2002 with the intention of linking water supply availability to land use planning by cities and counties. SB 610 requires water suppliers to prepare a Water Supply Assessment (WSA) report for inclusion by land use agencies during the CEQA process for new developments subject to SB 221. SB 221 requires water suppliers to prepare written verification that sufficient water supplies are planned to be available prior to approval of a large-scale subdivision of land under the State Subdivision Map Act. Large-scale projects include residential developments of more than 500 units; shopping centers or businesses employing more than 1,000 people; shopping centers or businesses having more than 500,000 SF of floor space; commercial office buildings employing more than 1,000 people; and/or commercial buildings having more than 250,000 SF of floor space or occupying more than 40 acres of land.

4.11.2.2 California Water Plan

The California Water Plan, updated every five years, is the State's strategic plan for sustainably and equitably managing and developing water resources for current and future generations. The California Water Plan was updated in 2023 to promote climate resilience across regions and water sectors with a statewide vision, clear goals, watershed planning framework and toolkit, and progress-tracking dashboard of indicators. It also includes updated resource management strategies, regional planning and performance tracking tools, water balances, future scenarios, and other technical and policy-related activities related to water resilience and sustainability.

SB 659, or the California Water Supply Solutions Act of 2023, was signed into law on October 8, 2023. It requires the California Department of Water Resources (DWR), as part of the 2028 update to the California Water Plan, and each subsequent update thereafter, to provide actionable recommendations to develop additional groundwater recharge opportunities that increase the recharge of the state's groundwater basins.

4.11.2.3 Senate Bil 606

SB 606 requires urban retail water suppliers to calculate an urban water use objective. The urban water use objective is an estimate of aggregate efficient water use from the previous year based on adopted water use efficiency service area characteristics for that year. New requirements for the urban water use objectives became effective after June 2022 when SWRCB adopted urban water use efficiency standards, performance measures, and variances. Urban water suppliers shall achieve the urban water use objective by January 1, 2027. An urban supplier that does not meet its objective may be required by the SWRCB to enact policies and projects that result in additional water savings.

4.11.2.4 Assembly Bill 341

In 2011, the state enacted AB 341, which established a policy goal for California of 75 percent recycling, composting, or source reduction of solid waste by 2020. AB 341 requires that commercial enterprises that generate four cubic yards or more of solid waste weekly and multi-family complexes comprised of five units or more arrange for recycling services. Businesses must provide organics and recycling containers at the front-of-house to collect waste generated from products purchased and consumed on the premises.

4.11.3 Local

4.11.3.1 Metropolitan Water District 2015 Regional Urban Water Management Plan

MWD's UWMP describes and evaluates sources of water supply, efficient uses of water, demand management measures, implementation strategies and schedules, and other relevant information and programs. The plan is updated every five years. Information from MWD's UWMP is used by local water suppliers in the preparation of their own plans. The information included in MWD's UWMP represents the district's most current planning projections of demand and supply capability developed through a collaborative process with the member agencies.

4.11.3.2 Metropolitan Water District 2015 Integrated Water Resources Plan

MWD's IWRP is a blueprint for long-term water supply reliability in Southern California. The fundamental goal of the plan is for Southern California to continue to have a reliable water system, considering future challenges related to prolonged droughts and changing climate.

4.11.3.3 San Diego County Water Authority 2020 Urban Water Management Plan

The SDCWA's 2020 UWMP was adopted by the SDCWA Board in May 2021 in accordance with state law and the RUWMP. The 2020 Plan contains a water supply reliability assessment that identifies a diverse mix of imported and local supplies necessary to meet demands over the next 25 years in average, single-dry year, and multiple-dry year periods.

4.11.3.4 City Council Policies

Council Policy 400-04 outlines the City's Emergency Water Storage Program. The policy mandates that the PUD store sufficient water in active, available storage to meet 7.2 months (three-fifths of the annual) of normal City water demand requirements, excluding conservation. Active, available storage is defined as the portion of water that is above the lowest usable outlet of each reservoir.

Council Policy 400-13 identifies the need to provide maintenance access to all sewers to reduce the potential for spills. The policy requires that environmental impacts from access paths in environmentally sensitive areas should be minimized to the maximum extent possible using sensitive access path design, canyon-proficient maintenance vehicles, and preparation of plans that dictate routine maintenance and emergency access procedures.

Council Policy 400-14 outlines a program to evaluate the potential to redirect sewage flow out of canyons and environmentally sensitive areas to an existing or proposed sewer facility located in City streets or other accessible locations. The policy includes an evaluation procedure that requires both a physical evaluation and a cost-benefit analysis. Based on the analysis, if redirection of flow outside the canyon is found infeasible, a Long-Term Maintenance and Emergency Access Plan is required. The plan would be specific to the canyon evaluated and would prescribe long-term access locations for routine maintenance and emergency repairs along with standard operating procedures identifying cleaning methods and inspection frequency.

City Council Policy 600-43 established a set of comprehensive guidelines for the review and processing of applications for the placement and design of Wireless Communication Facilities in accordance with the City of San Diego land use regulations. These guidelines are intended to prescribe clear, reasonable, and predictable criteria to assess and process applications in a consistent and expeditious manner, while reducing visual and land use impacts associated with Wireless Communication Facilities. For applicants seeking placement of a Wireless Communication Facility on City-owned land, this policy should be used in conjunction with applicable Council policies and LDC Section 141.0420.

City Council Policy 700-44 established a policy regarding flood control measures and the responsibility of implementation of the protection measures as they relate to private and public property. Individual property owners are primarily responsible for the prevention of flood damage to private property. The policy further states that the City's Office of Emergency Management shall offer a continuing program of educating the public on the techniques of flood damage prevention and will endeavor to maintain an up-to-date listing of commercial sources for sand, sandbags, pumps, and electrical generators and will make the listing available to the public upon request.

Per City Council Policy 800-04, private landowners/developers are responsible for providing adequate storm water drainage facilities, which are subject to review and approval by the City. Council Policy 800-04 states it is the basic responsibility of any owner or holder of land to accept and provide a suitable conveyance of storm water runoff, and that the cost of construction will be borne by the property owner or permittee. All continuing maintenance of such facilities becomes the responsibility of the property owner on whose land the facilities are located. The City's Transportation and Storm Water Department is only responsible for maintaining and upgrading public storm water drainage facilities that occur on City-owned land, and areas where easements have been granted to and accepted by the City.

4.11.3.5 City of San Diego Sewer Design Guidelines

The City's Sewer Design Guidelines set forth criteria to be used for the design of sewer systems, which may consist of pump stations, gravity sewers, force mains, and related appurtenances. It includes criteria for determining capacity and sizing of pump stations, gravity sewers and force mains, alignment of gravity sewers and force mains, estimating wastewater flow rates, design of bridge crossings, and corrosion control requirements.

4.11.3.6 City of San Diego Water Facility Design Guidelines

The City's Water Facility Design Guidelines identify general planning, predesign, and design details and approaches to be used for water infrastructure. The guidelines provide uniformity in key

concepts, equipment types, and construction materials on facilities built under the Water CIP. These design guidelines assist in providing professionally sound, efficient, uniform, and workable facilities, whether pipelines, pressure control facilities, pumping stations, or storage facilities.

4.11.3.7 City of San Diego Urban Water Management Plan

The City's 2020 UWMP serves as an overarching integrated water resources planning document for residents, businesses, interest groups, and public officials. This plan provides information on current and future water demands and supplies, discusses water resources challenges, and summarizes major initiatives that the City has proactively taken to ensure a safe, reliable water supply for its water customers. The 2020 UWMP is an update to the 2015 UWMP and was prepared in response to California Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act. Included in the 2020 plan is detailed information about the City's water demand, supply, and reliability projections for the next 20 years.

4.11.3.8 Climate Action Plan

The City's 2022 CAP aims to reduce landfill waste by promoting a Zero Waste by 2040 goal. The City implements the City Recycling Ordinance, the Construction and Demolition Debris Deposit Ordinance, and a variety of other waste diversion programs to position the City to achieve zero waste. In addition, the City has expanded its efforts to increase composting and prevent food waste in response to California State SB 1383, which requires the reduction of organic waste disposed of in landfills.

4.11.3.9 Waste Management Plans

Pursuant to the City's CEQA Significance Determination Thresholds, land development projects more than 40,000 SF that may generate approximately 60 tons of waste or more during construction and/or operation are required to prepare a project-specific Waste Management Plan (WMP) to address the disposal of waste generated during short-term project construction and long-term post-construction operation. The WMP is required to identify how the project would reduce waste and achieve target reduction goals.

4.12 Visual Effects and Neighborhood Character

4.12.1 State

4.12.1.1 California Scenic Highways Program

Recognizing the value of scenic areas and the value of views from roads in such areas, the California State Legislature established the California Scenic Highway Program in 1963. This legislation sees scenic highways as "a vital part of the all-encompassing effort to protect and enhance California's beauty, amenity and quality of life." Under this program, several state highways have been designated as eligible for inclusion as scenic routes. The one-mile portion of SR 163, known as the Cabrillo Freeway, between the north and south boundaries of Balboa Park, is an Officially

Designated State Scenic Highway. SR 52 to the north of the AMP area is an eligible state scenic highway, although not officially designated.

4.12.2 Local

4.12.2.1 City of San Diego General Plan

The General Plan includes a Citywide urban design strategy, goals, and policies regarding the physical features that define the character of a neighborhood or community. These goals complement the goals for pedestrian-oriented and walkable villages articulated in the City of Villages strategy.

Urban Design Element

The Urban Design Element of the General Plan establishes a set of design principles on which its policies are based and on which future public and private development physical design decisions can be based. Policy categories relevant to the AMP include natural features (wetland preservation), development adjacent to natural features and park lands, architecture, historic character, and landscape.

Conservation Element

The Conservation Element guides the sustainable management of the City's natural resources, with sections on open space and landform preservation, wetlands, and the urban forest. Policies call for the conservation of landforms, canyon lands, and open spaces that define the City's urban form, serve as core biological areas and wildlife linkages, or are wetland habitats. Policies related to wetlands require a watershed planning approach that preserves and enhances wetlands, and policies related to urban forestry call for the planting of large canopy shade trees where appropriate and with consideration of habitat and water conservation goals, as well as the retention of significant and mature trees.

4.12.2.2 City of San Diego Land Development Code

The City's LDC contains numerous provisions to guide the design of development throughout the City. Through zoning and development standards, such as specified maximum building heights, maximum lot coverage, FARs, and front, rear, and side yard setbacks, the LDC provides restrictions on land development and design that affect visual quality.

The LDC also contains development restrictions and guidelines to protect and enhance ESLs. Steep hillsides are defined as those with natural gradients equal to or exceeding 25 percent with a minimum elevation differential of 50 feet, or a natural gradient of 200 percent with a minimum elevation differential of 10 feet. The AMP area does not contain any steep hillsides meeting these criteria, and these regulations are not further discussed.

The LDC (Section 142.0101 et seq.) contains grading regulations to address (among other things) landform preservation and require that all grading be designed and performed in conformance with applicable City Council policies and the standards established in the LDM.

4.12.2.3 Otay Mesa Community Plan

The Urban Design Element of the OMCP includes urban design guidelines that are intended to preserve and enhance the physical environment, visual appearance, identify, and character of the Otay Mesa community. Guidelines relevant to the project include the following:

Airport District

The following policies from the OMCP directly apply to the proposed AMP:

- **Policy 4.1-11:** Ensure that urban design elements for the redevelopment of Brown Field help create an image for Brown Field while complementing adjacent industrial development along Otay Mesa Road.

- **Policy 4.1-12:** Use landscape screening for industrial areas adjacent to Brown Field and within the ALUCP safety zone where minimal development may occur.

- **Policy 4.1-13:** Create a unifying district theme for industrial development in the Airport District by incorporating design features, elements, and landscape themes from Brown Filed redevelopment.

Building Scale and Design

- New development should be consistent with the scale and character of surrounding development, and should use high quality design, materials, and workmanship. New buildings should provide a transition to older buildings by providing similar building setbacks. In addition, new buildings that are larger than existing structures should avoid abrupt differences in building height and mass though the use of step-back design techniques.

Natural Resources

- Employ sensitive design techniques when developing adjacent to Otay Mesa's natural canyon and open space systems. Relate development to the topography and natural features when grading to retain the character of the landform. Implement contour grading and bank undulation to avoid extreme slope faces. Maintain first floor setbacks and step-back additional stories along the public right-of way to enhance scenic opportunities.

Prime Viewshed Areas

- The orientation and design of new buildings should preserve and/or create view corridors.

5.0 ENVIRONMENTAL ANALYSIS

5.1 Air Quality

This section of the PEIR addresses potential impacts to air quality that could result from the construction and operation of improvements included within the proposed AMP. The analysis of construction and non-flight operations such as vehicular use and building energy use is based on the *Brown Field Municipal Airport Master Plan Update Air Quality Technical Report* (HELIX 2024a), which is included as Appendix B of this PEIR. Aircraft-related impacts are based on the *Airport Master Plan Study for Brown Field Municipal Airport – 2037 Forecast Noise and Air Quality Modeling Assumptions Technical Memorandum* (HMMH 2019), which is included as Appendix C.

5.1.1 Existing Conditions

The existing environmental setting, which includes a detailed discussion and description of existing air quality conditions within the SDAB is contained in Section 2.4.1 of this PEIR. Section 4.1 of this PEIR includes a summary of the regulatory framework relative to air quality.

5.1.2 Methodology and Assumptions

5.1.2.1 Air Emissions Modeling

Air emissions from area and energy sources were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1. CalEEMod is a computer model used to estimate air emissions resulting from land development projects throughout the state of California. CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air quality management and air pollution control districts. The calculation methodology, source of emission factors used, and default data are described in the CalEEMod User's Guide, and Appendices C, D, and G (CAPCOA 2022).

In brief, CalEEMod is a computer model that estimates criteria air pollutant and GHG emissions from mobile (i.e., vehicular) sources, area sources (fireplaces, woodstoves, and landscape maintenance equipment), energy use (electricity and natural gas used in space heating, ventilation, and cooling; lighting; and plug-in appliances), water use and wastewater generation, and solid waste disposal. Emissions are estimated based on land use information input to the model by the user.

In the first module, the user defines the specific land uses that will occur at the project site. The user also selects the appropriate land use setting (urban or rural), operational year, location, climate zone, and utility provider. The input land uses, size features, and population are used throughout CalEEMod in determining default variables and calculations in each of the subsequent modules. The input land use information consists of land use subtypes (such as the residential subtypes of single-family residential and multi-family medium-rise residential) and their unit or square footage quantities.

Subsequent modules include construction (including off-road vehicle emissions), mobile (on-road vehicle emissions), area sources (woodstoves, fireplaces, consumer products [cleansers, aerosols,

solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste. Each module comprises multiple components including an associated mitigation module to account for further reductions in the reported baseline calculations. Other inputs include trip generation rates, trip lengths, vehicle fleet mix (percentage autos, medium truck, etc.), trip distribution (i.e., percent work to home, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters.

In various places, the user can input additional information and/or override the default assumptions to account for project- or location-specific parameters. For this assessment, the default parameters were not changed unless otherwise noted. The CalEEMod output files for the project are included in Appendix A of the *Air Quality Technical Report* (HELIX 2019a).

5.1.2.2 Construction Phasing

Airport improvements identified in the AMP are proposed over the 20-year planning period (2017 to 2037) and are broken down into two 5-year periods (Phase I and Phase II) and one 10-year period (Phase III). Table 3-6 in Chapter 3, *Project Description*, lists the improvement tasks and the phasing. All tasks are assumed to occur sequentially (no overlap). Because a portion of the AMP planning period has already passed, for the purposes of this analysis, Phase I construction is assumed to commence in January 2025, followed by Phase II construction in January 2026 and Phase III in January 2030. Construction is assumed to occur 8 hours per day, 5 days per week. Some construction activities may occur at night. Please see Appendix B for additional details.

5.1.2.3 Construction Assumptions

5.1.2.4 Pavement Maintenance

AMP tasks identified as runway, taxiway, or ramp improvements are assumed to be pavement maintenance treatments in accordance with the PMMP (Atkins 2018). All pavement improvements are assumed to require re-application of runway and taxiway markings following paving activities. Pavement maintenance and improvements are broken into four categories:

Preventative Maintenance and Rehabilitation: Pavement preventative maintenance or rehabilitation would involve a combination of any of the following operations: crack sealing, shallow patching, deep patching, and/or surface treatment. To be conservative, preventative maintenance is assumed to require the same level of treatment as rehabilitation. Three inches of material are assumed to be removed during shallow patching, and six inches of material are assumed to be removed during deep patching. Surface treatment is assumed to be a spray application of a bituminous slurry (also known as a seal coat) without added aggregate. It is assumed that the rehabilitated areas would require new pavement markings. Approximately 450,760 SF of pavement is assumed to require rehabilitative maintenance. The rehabilitation work rate is assumed to be 10,000 SF per day. The percentage of each rehabilitation area affected by repair operations is assumed to be:

- Crack Sealing: 100%
- Shallow Patching: 5%
- Deep Patching: 2%

- Surface Treatment: 20%
- Marking: 10%

Reconstruction: Pavement reconstruction is assumed to require removing up to six inches of asphalt concrete using a pavement milling machine and exporting the ground asphalt from the site. A new layer of asphalt concrete would be placed by a paving machine followed by a roller. It is assumed that the rehabilitated areas would require new pavement markings. Approximately 686,910 SF of pavement is assumed to require reconstruction. The reconstruction work rate is assumed to be approximately 25,000 SF per day.

New Surface: The construction of new surfaces for runways, taxiways, aprons, and hangar/tiedown areas is assumed to require excavating to a depth of approximately 18 inches using a combination of rubber-tired dozers and graders and rubber-tired loader and exporting the material from the site. New surfaces are assumed to be typically 12 inches of subgrade compacted with a steel drum vibratory roller, followed by 6 inches of asphalt concrete laid by a paving machine and compacted with a steel drum vibratory roller. Approximately 1,239,175 SF of pavement is assumed to require new surfacing. The new surface work rate is assumed to be 12,000 SF per day.

Pavement Demolition: Pavement demolition is assumed to require the removal of the asphalt concrete layer (leaving any aggregate subgrade), grinding the removed asphalt, and exporting the material from the site. Approximately 483,140 SF of pavement is assumed to be demolished. The pavement demolition work rate is assumed to be approximately 10,000 SF per day.

Pavement Marking

For new or repaired runway or taxiway surfaces, 10 percent of the surface is assumed to require new marking. It is assumed that the area to be marked would be cleaned of rubber and old paint prior to marking using a self-propelled high-pressure blasting truck, followed by a self-propelled automated pavement marking machine with an assumed total of 712 hp (2 engines). For new or repaired runway or taxiway surfaces, 1,389,965 SF is assumed to require new marking. The marking work rate is assumed to be 35,000 SF per day.

Hangar Construction Assumptions

Hangars are assumed to be pre-fabricated and pre-painted panels assembled onto a welded frame with a crane and/or a forklift on a concrete slab foundation. For a series of hangars, the work rate is assumed to be approximately 500 SF per day.

Building Demolition Assumptions

Demolition of buildings and structures, including hangars and (conservatively) the terminal building rehabilitation, were modeled using the CalEEMod default equipment. The demolition schedule and crew size were estimated based on the building square footage from the proposed AMP.

Maintenance Building Construction and Terminal Building Rehabilitation

Construction of the proposed maintenance building and the rehabilitated terminal building were modeled using the CalEEMod default equipment and schedule, based on the building square

footage from the proposed AMP. Grid electrical power was assumed to be used for all small construction equipment (no diesel-powered generators, welders, or air compressors). The maintenance building construction and terminal building rehabilitation were conservatively assumed to require a crew of up to ten and one vendor deliveries per day.

Construction Equipment Assumptions

The construction equipment to be used for each improvement task in the proposed AMP has not been determined. A conservative (high) estimate from the *Air Quality Technical Report* of the maximum anticipated required equipment is shown in Table 5.1-1, *Construction Equipment Assumptions*.

Table 5.1-1
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity Type	Equipment	Quantity	Hours per Day
Pavement Maintenance/ Rehabilitation	Crack Sealing Truck	1	5
	Concrete Saw	1	2
	Tractors/Loaders/Backhoes	1	7
	Paving Equipment	1	2
	Roller	1	2
Pavement Reconstruction	Pavement Milling Machine	1	6
	Paving Machine	1	6
	Paving Equipment	1	6
	Roller	1	7
Pavement New Surface	Rubber Tired Dozer	1	4
	Rubber Tired Loader	1	4
	Grader	1	4
	Paving Machine	1	5
	Paving Equipment	1	5
	Roller	1	5
Pavement Demolition	Concrete Saw	1	2
	Rubber Tired Dozer	1	7
	Rubber Tired Loader	1	4
	Excavator	1	7
	Grinding/Crushing Machine	1	4
Pavement Marking	Blasting Truck	1	4
	Marking Machine	1	4
Hangar Construction	Rubber Tired Dozer	1	4
	Tractors/Loaders/Backhoes	1	4
	Crane	1	3
	Forklift	1	3
	Aerial Lift	1	3
	Welder	1	2
	Generator	1	6
Building Demolition	Concrete Saw	1	8
	Excavator	1	8
	Rubber Tired Dozer	1	8

Activity Type	Equipment	Quantity	Hours per Day
Building Construction/ Rehabilitation	Crane	1	4
	Forklift	1	6
	Tractors/Loaders/Backhoes	1	8
Fencing and Miscellaneous	Tractors/Loaders/Backhoes	1	7
Fuel Tank Excavation	Excavator	1	7
	Tractors/Loaders/Backhoes	1	7

Source: HELIX 2024a

5.1.2.3 Non-flight Operational Assumptions

For long-term operation, emissions resulting from the 14,000 SF terminal building, the new 10,000 SF maintenance building, and the 107 new hangars were modeled. Operational emissions were modeled for the first full year of operation following the earliest anticipated completion of all proposed improvements – 2031. The new hangars would be built, as needed, to meet demand during the AMP planning period. To be conservative in estimating the highest potential increase in operational emissions, all hangars were assumed to be completed by the end of 2030.

Mobile (Transportation) Sources

Operational emissions from mobile source emissions are associated with project-related vehicle miles traveled (VMT) (calculated in the model from trip generation and trip lengths). Project trip generation was analyzed in the *Brown Field Municipal Airport Transportation Impact Analysis and Local Mobility Analysis*. Project trip generation was based on vehicular counts for airport driveways during one week in March 2024, and on airport flight operations during the same week. Trips and employees per flight operation were calculated and used to estimate 231 new daily airport trips in 2037 (CR Associates 2024). The calculated net new project trips were used in the emissions modeling with CalEEMod default distances, purposes, and fleet mix.

Area Sources

Area sources include emissions from landscaping equipment, the use of consumer products, and the reapplication of architectural coatings for maintenance. Emissions associated with area sources were estimated using the CalEEMod default values.

Energy Sources

Development within the project site would use electricity for lighting, heating, cooling, and appliances. Electricity generation typically entails the combustion of fossil fuels, including natural gas and coal, which is then transmitted to end users. A building's electricity use is thus associated with the off-site or indirect emission of GHG at the source of electricity generation (power plant).

The terminal building and the maintenance building could use natural gas for heating, hot water, and appliances which would result in emissions from the combustion of natural gas. Energy use for the terminal building and the maintenance building were modeled using CalEEMod defaults. Hangars were assumed to use only CalEEMod default electricity not subject to Title 24 (e.g., lighting, plug-in appliances, and tools).

5.1.2.4 Aircraft-related Operational Assumptions

Sources of aircraft-related operational emissions include aircraft engines and auxiliary power units (APUs).[1] Future aircraft emissions under buildout of the AMP were assessed by HMMH (2019) in accordance with the FAA's *Aviation Emissions and Air Quality Handbook, Version 3, Update 1* (FAA 2015) and were estimated using the Aviation Environmental Design Tool (AEDT). Emissions were estimated for the proposed 2037 forecast conditions at SDM, incorporating aircraft type, aircraft operations, runway utilization, flight geometry and use, meteorological condition, and terrain data. Refer to Appendix C for additional detail on the aircraft noise assessment methodology.

Lead emissions are associated with leaded aviation fuel in general aviation aircraft piston engines. The AEDT does not estimate lead emissions directly; therefore, HMMH calculated these emissions separately based on fuel consumption and lead fuel content consistent with FAA/USEPA methodology described in the *Aviation Emissions and Air Quality Handbook* (FAA 2015).

5.1.2.5 Air Quality Plans

The SDAPCD and SANDAG are responsible for developing and implementing plans for the attainment and maintenance of the ambient air quality standards in the SDAB. These air quality plans provide an overview of the region's air quality and identify the pollution-control measures needed to attain and maintain air quality standards. The applicable plans for the SDAB, described below, accommodate emissions from all sources, including natural sources, through the implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the regional air quality plans and the State Implementation Plan (SIP).

5.1.2.6 Attainment Plan

The regional air quality plan addressing the NAAQS for ozone in the SDAB is SDAPCD's *2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County* (Attainment Plan). The Attainment Plan outlines SDAPCD's strategies and control measures designed to attain the NAAQS for ozone in the SDAB. Approved by the SDAPCD Board on October 14, 2020, and by CARB on November 19, 2020, the attainment plan was submitted to the USEPA on January 8, 2021, for consideration as a revision to the California SIP for attaining the ozone standards (SDAPCD 2020).

5.1.2.7 Regional Air Quality Strategy

To comply with State law, the SDAPCD must prepare an updated State Ozone Attainment Plan to identify possible new actions to further reduce emissions. Initially adopted in 1992, the RAQS identifies measures to reduce emissions from sources regulated by the SDAPCD, primarily stationary sources such as industrial operations and manufacturing facilities. The RAQS is periodically updated to reflect updated information on air quality, emission trends, and new feasible control measures, and was last updated in 2023 (SDAPCD 2023).

[1] APUs are devices on planes that provide energy for functions other than propulsion, such as electrical systems.

5.1.2.8 Sensitive Receptors

Analysis of impacts to sensitive receptors includes an evaluation of CO hot spots and exposure to toxic air emissions.

Localized Carbon Monoxide Hot Spots

A CO hot spot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hot spots have the potential to violate federal and state CO standards at intersections, even if the broader basin is in attainment for federal and state levels. Although the SDAB is currently a maintenance area for CO, exhaust emissions can potentially cause a direct, localized hot spot impact at or near the proposed development. Because increased CO concentrations are usually associated with roadways that are congested and with heavy traffic volumes, many agencies have established preliminary screening criteria to determine whether project-generated, long-term operational local mobile-source emissions of CO would result in, or substantially contribute to, emissions concentrations that exceed the state's 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9.0 ppm.

Toxic Air Contaminants

For SDAPCD-permitted stationary projects, the SDAPCD does not identify a significant impact if the potential health risks from the project would not exceed the health risk public notification thresholds specified by SDAPCD Rule 1210.

For operational impacts, the analysis considers whether the proposed AMP would be consistent with the siting distances recommended by CARB's Air Quality and *Land Use Handbook: A Community Health Perspective,* which provides guidance on land use compatibility with sources of TACs (CARB 2005). The handbook is not a law or adopted policy but offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help protect children and other sensitive members of the population.

5.1.2.9 Odors

Two situations increase the potential for odor problems. The first occurs when a new odor source is located near existing receptors. The second occurs when new receptors are developed near existing sources of odor. SDAPCD Rule 51 (Nuisance) prohibits the emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of the public. Projects required to obtain permits from the SDAPCD, typically industrial and some commercial projects, are evaluated by SDAPCD staff for potential odor nuisance and conditions, where necessary, to prevent the occurrence of public nuisance.

The occurrence and severity of odor impacts depend on numerous factors including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

5.1.3 Significance Determination Thresholds

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the state's CEQA Guidelines Appendix G, the City's CEQA Significance Determination Thresholds (2022), and applicable air district screening-level thresholds described below. Thresholds have been modified from the City's CEQA Significance Determination Thresholds to reflect a programmatic analysis for the proposed project. A significant air quality and/or odor impact could occur if the project would:

1. Conflict with or obstruct the implementation of the San Diego RAQS or applicable portions of the SIP;

2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;

3. Expose sensitive receptors (including, but not limited to, residences, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations; or

4. Create objectionable odors affecting a substantial number of people.

To determine whether the proposed project would: (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation; or (b) result in a cumulatively considerable net increase of PM_{10}, $PM_{2.5}$, or the ozone precursors NO_X and VOCs, the City has adopted screening criteria (City 2022a). These screening criteria are based on the SDAPCD trigger levels listed in Rules 20.2 and 20.3 established for the use in the permitting process for stationary sources of pollutants. Since the last revisions to the City's CEQA guidelines, the SDAPCD has added criteria for $PM_{2.5}$. The screening criteria were developed by SDAPCD for the preparation of Air Quality Impact Assessments (AQIAs; SDAPCD 2019; SDAPCD 2021b). The NAAQS and CAAQS identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. Therefore, for CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality or have an adverse effect on human health. The City has not adopted thresholds to determine the significance of exposure of sensitive to substantial TAC concentrations. In Rule 1210, the SDAPCD has adopted thresholds for the significance of cancer and non-cancer health effects for stationary sources of TACs which are required to prepare a health risk assessment (SDAPCD 2021c). The health risk thresholds can be used as screening criteria to determine the significance of a project's emissions of TACs.

The screening thresholds are shown in Table 5.1-2, *Screening-level Thresholds for Air Quality Impact Analysis.*

Table 5.1-2
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions
Construction Emissions (Pounds/Day)	
Respirable Particulate Matter (PM_{10})	100
Fine Particulate Matter ($PM_{2.5}$)	67

Pollutant	Total Emissions		
Oxides of Nitrogen (NO_X)	250		
Oxides of Sulfur (SO_X)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	137		
Operational Emissions			
	Pounds per Hour	**Pounds per Day**	**Tons per Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)	---	67	10
Oxides of Nitrogen (NO_X)	25	250	40
Oxides of Sulfur (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)	---	137	15
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-Cancer Hazard	1.0		

Source: City 2022a; SDPACD 2021b; SDAPCD 2021c; SDAPCD 2019
T-BACT = Toxics-Best Available Control Technology

SDAPCD Rule 51 (Nuisance) prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a "considerable" number of persons or businesses in the area would be considered to be a significant, adverse odor impact.

5.1.4 Impact Analysis

5.1.4.1 Issue 1: Conflicts with Air Quality Plans

Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

As discussed in Section 5.1.3, the thresholds of significance for the project's criteria pollutant and precursor emissions are based on the SDAPCD AQIA trigger levels. These significance thresholds have been established to assist lead agencies in determining whether a project may have a significant air quality impact during the initial study. A project with emissions lower than the thresholds would not conflict with or obstruct the implementation of the District's air quality plans for the attainment of the applicable NAAQS and CAAQS. As discussed in Section 5.1.5.2 below, the project would not exceed the construction operational-related thresholds of significance for criteria pollutants and precursor emissions.

The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for ozone. In addition, SDAPCD's Attainment Plan includes the SDAPCD's plans and control measures for attaining

the ozone NAAQS. These plans accommodate emissions from all sources, including natural sources, through the implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and the CARB, and the emissions and reduction strategies related to mobile sources are considered in the RAQS, Attainment Plan, and SIP.

The RAQS and Attainment Plan rely on information from CARB and SANDAG to propose strategies for the reduction of source emissions through regulatory controls. CARB's source emission projections and SANDAG's growth projections are based on population, vehicle trends, and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by these land use plans would be consistent with the RAQS and Attainment Plan. The applicable land use plans in relation to the proposed AMP are the City's General Plan and the OMCP.

The proposed AMP outlines a series of airside and landside improvements and modifications that would accommodate current aircraft and forecast demands. Collectively these improvements and modifications would provide for safer air travel as well as economic benefits by modernizing and expanding the useable spaces to meet the forecast demand. It is not anticipated that implementation of the proposed AMP would result in an increase in demand for use of the Airport airside or landside facilities beyond the forecast growth in aviation and aviation-related services in the San Diego region. The AMP does not include residential development. Therefore, the implementation of proposed AMP would not result in regional growth of population or employment beyond that anticipated in the General Plan and OMCP and would not result in growth beyond the assumptions utilized in developing the RAQS and Attainment Plan. As a result, the proposed project would not conflict with or obstruct the implementation of an applicable air quality plan and impacts would be less than significant.

5.1.4.2 Issue 2: Air Quality Standards

Would the proposed project result in a violation of any air quality standard or contribute substantially to an existing or projected air quality violation?

Implementation of the proposed AMP would generate criteria pollutants in the short-term during construction and the long-term during operation. To determine whether a project would result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, emissions associated with the improvement projects included in the proposed airport plan were evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 5.1-2).

Construction

Construction activities associated with the implementation of the airside and landside improvements under the proposed AMP would result in emissions of fugitive dust from demolition and site grading activities, heavy construction equipment exhaust, and vehicle trips associated with workers commuting to and from the site and trucks hauling materials. Improvement project task numbers 1 through 5 would establish or modify avigation easements and would not require any physical construction activity. Construction emissions were modeled by activity type and each modeled activity includes the combined emissions resulting from construction of the proposed

improvements listed in Table 3-6. The estimated maximum daily construction emissions are shown in Table 5.1-3, *Construction Criteria Pollutant and Precursor Emissions*. The emissions estimates assume compliance with the SDAPCD Rule 55 via watering exposed areas and demolition areas a minimum of twice per day.

Table 5.1-3
CONSTRUCTION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS

Improvement	Maximum Emissions (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase I Near-Term						
Pavement Demolition	1.5	20.7	16.2	<0.1	7.3	1.8
New Surface Grading	0.9	21.8	11.5	<0.1	4.9	2.0
New Surface Paving	10.7	6.3	4.9	<0.1	1.0	0.4
Pavement Rehabilitation	0.5	3.8	5.4	<0.1	0.3	0.2
Pavement Reconstruction	1.1	18.4	12.2	<0.1	2.5	1.0
Pavement Marking	14.9	5.4	4.9	<0.1	0.3	0.2
Fencing and Miscellaneous	0.1	1.0	1.8	<0.1	<0.1	<0.1
Fuel Tank Excavation	0.2	1.7	2.8	<0.1	0.1	<0.1
New Customs and Border Protection Building Construction	0.6	5.3	7.9	<0.1	0.4	0.2
New Customs and Border Protection Building Painting	7.1	0.9	1.5	<0.1	0.1	<0.1
Phase II Mid-Term						
Pavement Demolition	1.4	18.9	15.6	<0.1	6.8	1.7
New Surface Grading	1.1	25.6	14.5	<0.1	5.9	2.2
New Surface Paving	4.7	7.1	5.2	<0.1	1.2	0.4
Pavement Rehabilitation	0.5	3.5	5.2	<0.1	0.2	0.1
Pavement Reconstruction	1.0	13.4	10.5	<0.1	1.5	0.6
Pavement Marking	15.1	5.2	4.9	<0.1	0.3	0.2
Building Demolition	2.0	21.0	19.8	<0.1	4.5	1.3
Maintenance Building Construction	0.6	4.9	7.8	<0.1	0.4	0.2
Maintenance Building Painting	2.0	0.9	1.5	<0.1	0.1	<0.1
Terminal Building Construction/Renovation	0.6	4.9	7.7	<0.1	0.4	0.2
Terminal Building Painting	5.9	0.9	1.5	<0.1	0.1	<0.1
Hangar Construction	0.4	3.3	4.5	<0.1	0.3	0.1
Phase III Long-Term						
New Surface Grading	0.9	22.8	14.3	<0.1	6.0	2.2
New Surface Paving	5.5	5.2	4.6	<0.1	0.9	0.3
Hangar Construction	0.4	3.0	4.3	<0.1	0.3	0.1
Maximum Daily Emissions	**15.1**	**25.6**	**19.8**	**<0.1**	**7.3**	**2.2**
Screening Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold exceeded?	*No*	*No*	*No*	*No*	*No*	*No*

Sources: HELIX 2024a; City of San Diego 2022.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = oxides of sulfur; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns

As shown in Table 5.1-3, emissions of all criteria pollutants and precursors related to the implementation of the proposed AMP would be below the SDAPCD's screening thresholds. The maximum daily emissions shown assume all construction activities within each phase would occur sequentially (no overlap). If activities were to overlap, the maximum potential daily emissions would

be the sum of the activities within a phase, resulting in a maximum of 39 pounds per day ROG during Phase I (threshold is 137 pounds per day); 127 pounds per day NO_X during Phase II (threshold is 250 pounds per day); and 127 pounds per day CO during Phase II (threshold is 250 pounds per day). No combination of overlapping construction activities would have the potential to result in emissions exceeding the SDAPCD's maximum daily thresholds.

Non-flight Operations

Existing sources of non-aircraft related criteria pollutants and precursors associated with the operation of the Airport include mobile sources such as exhaust from visitor, pilot, employee, and vendor vehicles; area sources such as the use of landscape maintenance and aviation support equipment, and the use of consumer products and paint for cleaning and maintenance. The proposed rehabilitated terminal building, the new maintenance building, and new hangars could result in an increase in building energy and area sources of criteria pollutants and precursors. The potential increase in non-aircraft operational emissions resulting from the implementation of the AMP is shown in Table 5.1-4, *Operation Criteria Pollutant and Precursor Emissions (Non-Aircraft Related)*.

Table 5.1-4
OPERATION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (NON-AIRCRAFT RELATED)

Improvement	Maximum Emissions (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile	0.9	0.7	7.6	<0.1	2.0	0.5
Area	5.3	0.0	7.7	<0.1	<0.1	<0.1
Energy	0.0	0.2	0.2	<0.1	<0.1	<0.1
Total[1]	**6.2**	**0.9**	**15.5**	**<0.1**	**2.0**	**0.5**
Screening Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold exceeded?	*No*	*No*	*No*	*No*	*No*	*No*

Sources: HELIX 2024a; City of San Diego 2022.
[1] Totals may not sum due to rounding.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = oxides of sulfur; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns

As shown in Table 5.1-4, increases in non-aircraft operational emissions from the implementation of the AMP would not exceed the SDAPCD's screening thresholds. Therefore, the implementation of the proposed AMP would not result in any new violation of an air quality standard or contribute substantially to an existing or projected air quality violation and the impact would be less than significant.

Aircraft-related Operations

The potential increase in aircraft operational emissions resulting from the implementation of the AMP is shown in Table 5.1-5, *Operation Criteria Pollutant and Precursor Emissions (Aircraft Related)*.

Table 5.1-5
OPERATION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (AIRCRAFT RELATED)

Improvement	Maximum Emissions (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2017 Baseline Aircraft Total	99.6	40.5	2,766.1	8.8	3.5	3.5
2037 Forecast Aircraft Total	196.6	105.3	3,022.5	22.4	4.7	4.7
Net Change[1]	**97.1**	**64.8**	**256.3**	**13.6**	**1.2**	**1.2**
Screening Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold exceeded?	*No*	*No*	*No*	*No*	*No*	*No*

Sources: HMMH 2019; City of San Diego 2022.
[1] Totals may not sum due to rounding.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = oxides of sulfur; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns

As shown in Table 5.1-5, increases in aircraft operational emissions from implementation of the AMP would not exceed the SDAPCD's screening thresholds.

Combined Operational Emissions

The potential combined increase in non-aircraft and aircraft operational emissions resulting from the implementation of the AMP is shown in Table 5.1-6, *Combined Operation Criteria Pollutant and Precursor Emissions*.

Table 5.1-6
COMBINED OPERATION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS

Improvement	Maximum Emissions (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Non-Aircraft	6.2	0.9	15.2	<0.1	1.9	0.5
Aircraft	97.1	64.8	256.3	13.6	1.2	1.2
Total[1]	**103.3**	**65.7**	**271.5**	**13.6**	**3.1**	**1.7**
Screening Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold exceeded?	*No*	*No*	*No*	*No*	*No*	*No*

Sources: HELIX 2024a; HMMH 2019; City of San Diego 2022.
[1] Totals may not sum due to rounding.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = oxides of sulfur; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns

As shown in Table 5.1-6, the combined increase in non-aircraft and aircraft operational emissions from implementation of the AMP would not exceed the SDAPCD's screening thresholds. Therefore, the project would not result in any new violation of an air quality standard or contribute substantially to an existing or projected air quality violation, and the impact would be less than significant.

5.1.4.3 Issue 3: Sensitive Receptors

Would the proposed project expose sensitive receptors to substantial pollutant concentrations, including toxins?

This section includes an analysis of localized CO hotspots, as well as an assessment of TACs such as construction-related DPM emissions, construction-related asbestos and LBP emissions, and other operation-related TACs.

Localized Carbon Monoxide Hot Spots

A CO hotspot is an area of localized CO pollution in excess of the NAAQS concentration limit that is typically caused by severe vehicle congestion on major roadways. Transport of the criteria pollutant CO is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with high volume intersections that are projected to operate at unacceptable levels of service during the peak commute hours.

Neither the City nor the SDAPCD have adopted screening methods for CO hotspots. The Bay Area Air Quality Management District (BAAQMD) provides screening guidance in their CEQA Guidelines concerning the volume of traffic which could result in a CO hotspot: intersections which carry more than 44,000 vehicles per hour; or intersections which carry more than 24,000 vehicles per hour and where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway) (BAAQMD 2023).

The proposed AMP would not contribute traffic to a location where horizontal or vertical mixing of air would be substantially limited. All intersections affected by implementation of the AMP would include a mix of vehicle types that are not anticipated to be substantially different from the County average fleet mix, as identified in CalEEMod. According to the SANDAG Transportation Forecast Information Center, the busiest intersection in the Airport vicinity would be the intersection of Otay Mesa Road and Heritage Road, which is forecast to carry 31,900 vehicles per day, or approximately 3,910 vehicles during the peak hour in 2035 (SANDAG 2019). The proposed AMP's addition of 231 vehicles per day, or 23 vehicles during the peak hour, would result in the intersection carrying approximately 3,934 vehicles during the peak hour. This would be far below the screening level of 44,000 vehicles per hour. Therefore, the proposed AMP's contribution to future traffic would not result in CO hotspots and the impact would be less than significant.

Construction Diesel Particulate Matter Emissions

Implementation of the proposed AMP would result in the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These vehicles and equipment could generate TAC, including DPM. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive

phases such as grading, construction-related emissions would be higher than in other less equipment-intensive phases such as hangar construction.

Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB 2005). The dose (of TAC) to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has to the substance; a longer exposure period to a fixed amount of emissions would result in higher health risks. Given the highly dispersive nature of DPM, and the fact that construction activities would occur at various locations throughout the Airport over a 20-year phasing plan, it is not anticipated that implementation of the AMP would expose sensitive receptors to substantial construction-related DPM concentrations. Therefore, this impact would be less than significant.

Construction Asbestos and Lead-Based Paint Emissions

Asbestos dust and lead are known carcinogens classified as TACs by CARB. Both may be found in buildings constructed prior to 1979 when lead was used in LBP and asbestos was used as a component of building materials such as walls, ceilings, insulation, or fireproofing. Demolition and renovation of existing structures erected prior to 1979 could result in the disturbance of ACMs and LBP.

Airborne asbestos is regulated in accordance with the National Emission Standards for Hazardous Air Pollutants asbestos regulations. Federal and state regulations prohibit emissions of asbestos from demolition or construction activities. Following identification of friable ACMs, federal and state Occupational and Safety Health Administration (OSHA) regulations require that asbestos trained, and certified abatement personnel perform asbestos abatement and that all asbestos-containing materials removed from on-site structures must be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos. In accordance with the SDAPCD Rule 1206, *Asbestos Removal, Renovation, and Demolition*, prior to the commencement of renovation or demolition operations and prior to submitting the notifications required by Section (e) of Rule 1206, a facility survey shall be performed to determine the presence or absence of ACM, regardless of the age of the facility (SDAPCD 2017). USEPA's Lead Renovation, Repair and Painting Rule requires that firms performing renovation, repair, and painting projects that disturb LBP in structures built before 1978 have their firm certified by USEPA (or an authorized state), use certified renovators who are trained by USEPA-approved training providers, and follow lead-safe work practices. These regulations specify precautions and safe work practices that must be followed to minimize the potential for the release of asbestos fibers or lead dust and require notice to federal and/or local government agencies prior to beginning demolition or renovation that could disturb ACM. Therefore, compliance with established regulations would ensure that potential impacts associated with ACM and LBP would be less than significant.

Other Non-flight Operation-related TAC Emissions

Other long-term non-flight related operational emissions include toxic substances such as cleaning agents in use at the Airport. However, the use of these substances is not expected to increase beyond what is currently in use at the Airport. Compliance with state and federal handling regulations would ensure that emissions remain below a level of significance. The use of such substances such as cleaning agents is regulated by the 1990 Federal CAA Amendments as well as

state-adopted regulations for the chemical composition of consumer products. Therefore, the implementation of the AMP would not result in the exposure of sensitive receptors to substantial pollutant concentrations related to the operation of the Airport, and the impact would be less than significant.

Aircraft-related Operational Emissions

General aviation aircraft with piston engines use leaded fuel (avgas) that results in emissions of airborne lead. These emissions of airborne lead have the potential to affect sensitive receptors in the flight paths of aircraft. There are no sensitive receptors immediately surrounding the Airport that would be within the flight paths of aircraft when the aircraft are at low elevations during takeoff and landing. In addition, the analysis conducted by HMMH (2019) determined that a net decrease in lead emissions would occur with implementation of the AMP, resulting from the continued decrease in use of leaded avgas over time in accordance with federal regulations. As such, impacts to sensitive receptors from lead emissions would be less than significant.

5.1.4.4 Issue 4: Odors

Would the proposed project expose sensitive receptors to substantial pollutant concentrations, including toxins?

State of California H&SC Sections 41700 and 41705, and SDAPCD Rule 51, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Any unreasonable odor discernible at the property line of the project site will be considered a significant odor impact.

Emissions from construction equipment, such as diesel exhaust, and VOCs from architectural coatings and paving activities may generate odors; however, these odors would be temporary, intermittent, and not expected to affect a substantial number of people. Additionally, noxious odors would be confined to the immediate vicinity of construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials.

Existing operation of the Airport could be an occasional source of some odors, including from vehicle exhaust, aircraft refueling, and solid waste collection. Implementation of the proposed AMP would not substantially change existing sources of odors from existing Airport operations. The primary new facilities in the AMP (hangars, maintenance building, and administration uses) would not generate new sources of odor compared to existing facilities. Therefore, the long-term operation of the Airport under the proposed AMP would not create objectionable odors affecting a substantial number of people, and the impact would be less than significant.

5.1.5 Significance of Impacts

5.1.5.1 Conflicts with Air Quality Plans

The project would not conflict with or obstruct the implementation of the San Diego RAQS or applicable portions of the SIP. Therefore, impacts would be less than significant.

5.1.5.2 Air Quality Standards

Criteria pollutant and precursor pollutant emissions generated during construction, non-flight-related operational activities, and aircraft-related operational activities associated with the implementation of the proposed AMP would not exceed the SDAPCD screening thresholds. Therefore, the project would not result in any new violation of an air quality standard or contribute substantially to an existing or projected air quality violation, and the impact would be less than significant.

5.1.5.3 Sensitive Receptors

Construction of the proposed improvement tasks within the AMP would not expose sensitive receptors to substantial concentrations of CO, DPM, ACM, LBP, or other TACs. Long-term non-flight operations at the Airport as a result of the implementation of the AMP would not result in significant increased long-term emissions of other toxic substances. Lead emissions associated with aircraft operations would decrease compared to baseline conditions. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations, and the impact would be less than significant.

5.1.5.4 Odors

Potential construction-generated odors would be localized, temporary, intermittent, and not expected to affect a substantial number of people. Implementation of the proposed AMP would not substantially change existing sources of odors from Airport operations. Therefore, impacts associated with odors would be less than significant.

5.1.6 Mitigation Framework

Air quality impacts would be less than significant; therefore, no mitigation measures are required.

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5.2 Biological Resources

This section of the PEIR addresses potential impacts to biological resources that could result from implementation of the AMP. Information in this section is based on the *Brown Field Municipal Airport Master Plan Update Biological Technical Report* (HELIX 2024b), which is included as Appendix D of this PEIR.

5.2.1 Existing Conditions

The existing environmental setting, which includes a detailed discussion and description of existing biological resources within the AMP area is contained in Section 2.4.2 of this PEIR. Section 4.2 of this PEIR includes a summary of the regulatory framework relative to biological resources. Additional relevant information is provided below.

5.2.2 Methodology and Assumptions

As this PEIR addresses the proposed AMP at a programmatic level, rather than a specific project, the analysis of biological resources for the AMP area was performed at the plan level, using existing databases and literature. The baseline data was supplemented with a site visit by HELIX on June 6, 2017, to verify and update previous vegetation mapping, note the presence of any additional sensitive species observed, and conduct habitat assessments for sensitive species. Focused surveys were not conducted as part of the field effort for the proposed AMP, although results of biological surveys from various projects conducted within the AMP area over the past several years have been incorporated as part of the analysis of biological resources. Sources utilized for review included the following:

- Brown Field Redevelopment Biological Resources Constraints Analysis Letter Report (Merkel & Associates 2008)
- California Natural Diversity Data Base (CNDDB)
- CNPS Online Rare Plant Inventory
- USFWS sensitive species and critical habitat databases
- MSCP (County of San Diego Final MSCP Program; and City of San Diego MSCP SAP)
- Rare Plants of San Diego County (Reiser 2001)
- San Diego County Bird Atlas (Unit 2004)
- City of San Diego VPHCP (City 2019)
- Brown Field AMP Working Paper 4 – Environmental Review (Atkins 2017)
- MAP Project's Biological, Floristic, and Rare Plant Surveys (Sage Institute 2011b)
- MAP Project's Coastal California Gnatcatcher Surveys (ECORP Consulting, Inc. 2015)
- MAP Project's Vernal Pool Branchiopod Wet Season Survey 90-Day Report
- U.S. Department of Agriculture (USDA) Web Soil Service

5.2.2.1 Sensitive Plants

Sensitive plant species are those that are considered federal, state, or CNPS rare, threatened, or endangered; MSCP Covered Species; or MSCP NE species. Locations of sensitive plant species within the AMP area are derived from the sources listed above (note: City hard copy maps include MSCP species coded locations). The sensitivity status of plants is based on federal and state endangered, threatened, and sensitive status lists, as well as local sensitivity designations such as the MSCP covered species and CNPS rare species lists. See Section 2.5.2.3 in Chapter 2, *Environmental Setting*, for a discussion of sensitive plant species within or with the potential to occur within the AMP area.

5.2.2.2 Sensitive Wildlife

Sensitive animal species are those that are considered federal or state threatened or endangered, MSCP Covered Species, or MSCP NE species. The locations of sensitive wildlife species were derived from the sources listed above. The sensitivity status for animals is based on federal and state endangered, threatened, and sensitive status lists, as well as local sensitivity designated by the MSCP Covered Species and MSCP NE species lists, the CDFW Special Animals List, and animals mentioned in the City's Biology Guidelines. See Section 2.5.2.4 in Chapter 2, *Environmental Setting*, for a discussion of the sensitive wildlife species within or with the potential to occur within the AMP area.

5.2.2.3 Vegetation Communities

Vegetation mapping is primarily representative of the most recent available San Diego Geographic Information Source (SanGIS) data layer as well as the City's most recent MHPA vegetation layer. Where more current or detailed vegetation mapping exists from the sources listed above, the data was reviewed and incorporated into the vegetation discussion to provide further detail and updated information. Vegetation community descriptions follow Oberbauer et al. (2008) with habitat sensitivity/tier categories derived from wetland and upland mitigation ratio tables in the City's Biology Guidelines (City 2018). See Section 2.5.2.1 in Chapter 2, *Environmental Setting*, for a discussion of the existing vegetation communities within the AMP area.

5.2.3 Significance Determination Thresholds

Based on the City's CEQA Significance Determination Thresholds (City 2022a), which have been adapted to guide a programmatic analysis for the proposed project, impacts on biological resources would be significant if the proposed project would result in:

1. A substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies, or regulations, or by CDFW or USFWS;

2. A substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development Manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS;

3. A substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means;

4. Interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites; or

5. A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region.

5.2.4 Impact Analysis

Biological resources may be either directly or indirectly impacted by improvements associated with the proposed project. Furthermore, direct and indirect impacts may be either permanent or temporary in nature. Direct and indirect impacts are defined per the City's CEQA Significance Determination Thresholds (City 2022a).

Direct Impacts: A direct impact is a physical change in the environment that is caused by and immediately related to the project. An example of a direct physical change in the environment is the removal of vegetation due to brushing, grubbing, grading, trenching, or excavating.

Indirect Impacts: An indirect impact is a physical change in the environment that is not immediately related to the project, but is caused indirectly by the project. If a direct impact in turn causes another physical change in the environment, then the secondary change is an indirect impact. An indirect physical change is to be considered only if that change has a reasonably foreseeable impact that may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable. Potential indirect impacts may include the following:

- *Noise*: Elevated ambient noise levels that could result from development associated with the proposed AMP's implementation (construction), could impact species that rely on sound to communicate (e.g., birds). Elevated ambient noise levels have the potential to disturb species and/or cause direct habitat avoidance. The impact of noise on wildlife differs from species to species and is dependent on the source of the noise (e.g., vehicle traffic versus blasting) and the decibel level, duration, and timing.

- *Changes in Hydrology and Drainage*: Changes in surface or ground hydrology such as those related to runoff, salinity levels, and sedimentation resulting from the implementation of the proposed AMP could have indirect impacts on species dependent on surface water species.

- *Invasive Exotic and Predator Species*: Introduction of exotic plant and animal species to MHPA areas adjacent to the AMP area could be considered an indirect impact as such species have fewer natural predators, reduce habitat quality through reduced support of native species, and may aggressively outcompete native species.

- *Lighting*: Artificial night lighting associated with the implementation of the proposed AMP could impact habitat value for some species, particularly for nocturnal species, through potential modification of predation rates, obscuring of lunar cycles, and/or causing direct habitat avoidance. Nighttime lighting could also disturb diurnal species roosting in adjacent habitat.

- *Toxins and Fugitive Dust*: Increased use of chemical products including pesticides, herbicides, and machinery fluids along with fugitive dust generated during construction and operation of the Airport (i.e., from aerosolized soil, tire wear, and car exhaust) associated with the implementation of the proposed AMP could adversely impact plants and animals by coating the plant surfaces and disrupting various plant and animal lifecycle functions such as reproduction, photosynthesis, and respiration.

- *Unauthorized Access*: Development associated with the implementation of the proposed AMP could create or increase the use of habitats that otherwise were not easily accessible to humans. Disturbance from human activities (i.e., trampling of species from recreational activity) and trash left by human activities can adversely impact species and degrade habitat.

Permanent Impacts: Impacts that result in the irreversible removal or loss of biological resources are considered permanent.

Temporary Impacts: Per the City's Biology Guidelines, temporary disruptions of habitat and temporary staging areas that do not alter landform and that will be revegetated are generally not considered to be permanent habitat loss. Any impact that will last for only a limited amount of time and is considered to have reversible effects on biological resources can be viewed as temporary. This includes impacts related to construction activities. Temporary impacts would be revegetated in accordance with City revegetation guidelines.

5.2.4.1 Issue 1: Sensitive Species

Would the proposed project result in a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Sensitive Plant Species

As discussed in Chapter 2.5.2.3 of this PEIR, sensitive plant species are those that are considered federal, state, or CNPS rare, threatened, or endangered; MSCP Covered Species; or MSCP NE species.

A search of CNDDB, USFWS, and MSCP databases returned records of 39 sensitive plant species reported within 1,000 feet of the AMP area. These species, as well as MSCP NE species, were individually analyzed for potential to occur within the AMP area based on the presence of suitable habitat (e.g., vegetation communities, soils, elevation, and geographic range, life form, blooming period, etc.).

The results of a general biological survey, a review of previous surveys, and searches of the USFWS, CNDDB, and MSCP databases indicate eight sensitive plant species have been verified as occurring within the AMP area. Table 2-12 within Chapter 2 of this PEIR includes descriptions of these eight sensitive plant species and whether they are present within the AMP area.

Of these eight sensitive plant species, San Diego button-celery and Otay tarplant are federally and state listed. As noted in Table 2-12, approximately 90 individual button-celery plants were observed in association with a single known vernal pool in the southeast portion of the Airport boundary in 2011 (Sage Institute 2011b). This occurrence is outside the AMP area in the MAP development area. This species has not been documented in any other location on the Airport property. For the tarplant, the most recent observance of the species was in 1999, when the species was observed in the northwest corner of the AMP area near the canyons. During subsequent rare plant and biological surveys, the species were not detected.

In addition, six other sensitive plant species have been recorded in the AMP area: San Diego barrel cactus; San Diego bur-sage; variegated dudleya; ashy spike-moss; San Diego County needlegrass; and San Diego sunflower.

As noted in the Biological Technical Report (HELIX 2024b), although these species have a high likelihood of occurring within the northern canyons of the Airport site, the development activities associated with the AMP would occur within areas in the south that are mowed multiple times per year to control vegetation height in accordance with FAA regulations and are therefore not expected to affect these species. However, because it cannot be guaranteed that sensitive plant species would be absent when future improvements under the AMP are implemented, impacts are considered to be potentially significant.

Sensitive Wildlife Species

Sensitive wildlife species are those that are considered federal or state threatened or endangered; MSCP Covered Species; or MSCP NE species. A species is also considered to be sensitive if it is included on the CDFW's Special Animals List (CDFW 2018) as a candidate for federal or state listing, state Species of Special Concern (SSC), state WL (Watch List) species, state Fully Protected species, or federal Bird of Conservation Concern. Generally, the principal reason an individual taxon (species or subspecies) is considered sensitive is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

In addition, active nests of most bird species, regardless of sensitivity status, are protected by the federal MBTA and CFG Code. Note that development within the AMP is required to adhere to the MBTA and CFG Code statutes regarding the protection of avian nesting.

The general biological survey, a review of previous Airport surveys, and searches of the USFWS listed species database and CNDDB, indicate that there are 15 sensitive animal species documented or with a high potential to occur in the AMP area.

Three federally listed animal species and one state listed animal species have been documented in the AMP area. These include the federally listed coastal California gnatcatcher (*Polioptila californica californica*), Riverside fairy shrimp, San Diego fairy shrimp, and the state-listed American peregrine

falcon (*Falco peregrinus anatum*). These species, along with their respective status, distributions, habitats, and presence within the AMP area, are shown in Table 2-13 (in Section 2.5.2.4 of this PEIR).

Potential impacts to coastal California gnatcatcher associated with the implementation of the proposed AMP would be related to short-term noise effects during construction. However, these impacts are not considered significant as the noise levels would not be substantially greater than existing baseline conditions associated with ongoing Airport operations and the MHPA is greater than 500 feet from the AMP.

No direct impacts are expected to occur to San Diego fairy shrimp as this species has not been detected in the AMP's development footprint. The nearest documented occurrence is adjacent to existing pavement that would be used for construction staging and the next nearest record is over 300 feet away from AMP development impacts. Dust control and implementation of standard construction BMPs will prevent indirect impacts to this species, and biological monitoring during construction will help ensure the avoidance of edge effects. It should be noted that the two locations discussed above are within the impact area for the MAP project and may no longer be extant at the time of future projects implemented under the AMP.

Similar to San Diego fairy shrimp, no direct impacts are expected to occur to Riverside fairy shrimp, as this species has not been detected in the AMP development footprint. Dust control and implementation of standard construction BMPs will prevent indirect impacts to this species, and biological monitoring during construction will help ensure the avoidance of edge effects.

A review of the USFWS database for listed species occurrences indicates that a fourth listed species, the federally listed endangered Quino checkerspot was present in the AMP area in 1976 and 1977; however, focused surveys conducted in 1998, 2008, and 2011 failed to detect this species. Thus it is presumed absent from the AMP area.

Eleven other sensitive animal species have been documented in the AMP area: BUOW, California horned lark, grasshopper sparrow, golden eagle, loggerhead shrike, northern harrier, orange-throated whiptail, San Diego black-tailed jackrabbit, San Diego cactus wren, southern California rufous-crowned sparrow, and the yellow warbler.

Construction associated with the implementation of the project would affect 12.6 acres (7.2 acres of permanent impacts and 5.4 acres of temporary impacts) of non-native grassland with clearing, grubbing, and grading activities. This habitat is used, or potentially used, by BUOW, horned lark, grasshopper sparrow, loggerhead shrike, golden eagle, white-tailed kite, northern harrier, American peregrine falcon, San Diego black-tailed jackrabbit, and Crotch's bumble bee and the loss of habitat could result in direct injury or mortality to individuals. The 5.4 acres of temporary impacts within sensitive vegetation communities are limited to non-native grassland and would occur entirely outside of the MHPA.

Impacts to BUOW from the permanent removal of 7.2 acres of non-native grassland and temporary removal of 5.4 acres of non-native grassland (12.6 acres in total) are considered significant given the overall reduction in habitat for this species and downward population trend in the region over the last two decades. BUOW is a high-profile species for CDFW, USFWS, and the MSCP, and the City and CDFW have identified this population as important to the long-term survival of the species in San

Diego County (ESA and Sage Institute 2016). Significant impacts also would occur if nesting BUOW was directly or indirectly affected by project construction.

Crotch's bumble bee (*Bombus crotchii*), which is currently a state candidate endangered species and is therefore afforded protection under CESA, has low potential to use the airfield due to the limited presence of suitable floral resources combined with regular mowing of these areas, which removes the limited nectar resources that may be present. Regular mowing of the airfield is required for airport operation safety. This species is therefore presumed absent, and impacts are not anticipated. However, because it cannot be guaranteed that Crotch's bumble bee would be absent when future improvements under the AMP are implemented, impacts are considered to be potentially significant.

Impacts to 12.6 acres of non-native grassland foraging habitat for MSCP-covered white-tailed kite, northern harrier, American peregrine falcon, and golden eagle are not considered significant for these species due to the adequate species coverage and suitable habitats protected under the MSCP within the MHPA. Northern harrier (a medium-sized raptor) also has the potential to nest in the AMP area, and any impacts to nesting raptors would be considered significant.

Impacts to horned lark, loggerhead shrike, grasshopper shrike, and San Diego black-tailed jackrabbit (species not covered by the MSCP) by the removal of 12.6 acres of non-native grassland would be less than significant due to the small number of individuals potentially affected, the relatively small amount of habitat impacted, and the remaining suitable habitat in the project area and adjacent conserved lands.

Significant impacts also could occur if nesting birds were directly impacted by project implementation.

Short-term noise effects during construction are not considered significant as they (a) would not affect species within the MHPA given the project's distance from the MHPA (greater than 500 feet), (b) are not expected to substantially increase noise levels from the existing baseline condition of ongoing Airport operations, and (c) would avoid the BUOW breeding season.

Other sensitive wildlife species occurring in the AMP area or with high potential to occur in the AMP area are associated with sage scrub, vernal pool, or other habitats that would not be impacted by the implementation of the project.

5.2.4.2 Issue 2: Sensitive Habitats

Would the proposed project result in a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats, as identified in the Biology Guidelines of the Land Development Manual, or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

As described in Section 2.5.2 of this PEIR, a total of ten vegetation communities or land use types are mapped within the AMP area. They include four wetland habitat types (vernal pool, southern willow scrub, disturbed wetland, and open water) and six upland habitat/land use types (maritime succulent scrub, Diegan coastal sage scrub [including disturbed], baccharis scrub, non-native grassland, disturbed habitat, and developed land).

Of the 551.9 acres within the AMP area, approximately 37.5 acres (seven percent) would be directly impacted by the future implementation of individual projects under the AMP (Table 5.2-1, *AMP Impacts to Vegetation and Land Cover Types*, and Figure 5.2-1, *Vegetation and Sensitive Biological Resource Impacts*). These impacts, which are entirely outside of the MHPA, are composed of 17.1 acres of permanent impacts and 20.4 acres of temporary impacts (including 4.3 acres of construction staging areas). A total of 12.6 acres of sensitive uplands (i.e., Tier IIIB vegetation) and 24.9 acres of non-sensitive uplands would be affected.

Impacts to 12.6 acres of sensitive habitats are limited to upland communities consisting entirely of non-native grassland, of which 7.2 acres would be permanently impacted and 5.4 acres would be temporarily impacted during construction, including 2.2 acres of staging areas. The 5.4 acres of temporary impacts within sensitive vegetation communities are limited to non-native grassland and would occur entirely outside of the MHPA. Per the City's Biology Guidelines, temporary disruptions of habitat and temporary staging areas that do not alter landform and that will be revegetated are generally not considered to be permanent habitat loss. The 5.4 acres of temporarily impacted non-native grassland would not alter the landform and would be revegetated in accordance with City revegetation guidelines, as referenced in Attachment III of the City's 2018 Biology Guidelines. A revegetation plan will be prepared for the non-native grassland temporary impact areas and would include a seed palette of native species appropriate to the area, a 120-day plant establishment period, and a 25-month maintenance period, in accordance with the City's landscape guidelines.

Implementation of the project would not impact known vernal pools or other wetlands. Updated surveys to document vernal pools in the AMP area would be required per MM BIO-1 and MM BIO-5 prior to the implementation of projects identified in the AMP that would affect non-native grassland or disturbed habitat (i.e., non-developed lands). Impacts are considered potentially significant.

Table 5.2-1
AMP IMPACTS TO VEGETATION AND LAND COVER TYPES (acres)[1]

Vegetation Community or Land Cover Type	Tier	Baseline Acreage	Impacts Inside the MHPA[3]	Impacts Outside the MHPA[3]		Total Impacts
				Temporary[4]	Permanent	
Wetland						
Southern willow scrub	Wetland	2.04	--	--	--	--
Disturbed wetland	Wetland	0.20	--	--	--	--
Vernal pool	Wetland	3.53	--	--	--	--
Open water	Wetland	0.21	--	--	--	--
Wetland Subtotal		***5.98***	***--***	--	--	--
Sensitive Upland						
Maritime succulent scrub	I	7.7	--	--	--	--
Diegan coastal sage scrub–including disturbed	II	61.7	--	--	--	--
Baccharis scrub	II	1.0	--	--	--	--
Non-native grassland	IIIB	280.4	--	5.4[5]	7.2	12.6
Sensitive Upland Subtotal		***350.8***	***--***	***5.4***	**7.2**	**12.6**

Vegetation Community or Land Cover Type	Tier	Baseline Acreage	Impacts Inside the MHPA[3]	Impacts Outside the MHPA[3]		Total Impacts
				Temporary[4]	Permanent	
Non-Sensitive Upland						
Disturbed habitat	IV	43.8	--	0.6	2.9	3.5
Developed	--	151.3	--	14.4	7.0	21.4
Non-Sensitive Upland Subtotal		***195.1***	***--***	***15.0***	***9.9***	***24.9***
TOTAL		**551.9**	**--**	**20.4**	**17.1**	**37.5**

[1] Totals reflect rounding (0.1 for uplands and 0.01 for wetlands/riparian).
[2] Codes refer to Oberbauer 2008.
[3] Permanent and temporary
[4] Includes temporary construction impacts and construction staging areas.
[5] Temporary impacts within non-native grassland include 2.2 acre of staging areas and 3.2 acre of temporary disturbance during construction.

Implementation of the AMP would result in direct impacts to 12.6 acres of Tier IIIB habitats (non-native grassland); these impacts would be considered significant and would require mitigation at ratios prescribed by the City's Biology Guidelines.

Significant impacts also could occur if the AMP were to impact lands outside of the approved impact footprint, either directly through habitat removal, or indirectly through runoff, sedimentation, fugitive dust, or other edge effects.

5.2.4.3 Issue 3: Wetlands

Would the proposed project result in a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?

As described in the Biological Technical Report, the AMP area supports areas that could be considered jurisdictional waters or wetlands by the USACE, RWQCB, CDFW, and/or City. Potential jurisdictional waters and wetlands in the AMP area (including on the southwestern parcel) include vernal pools, southern willow scrub, disturbed wetland, open water, and drainage ditches (see Table 5.2-2, *Potentially Jurisdictional Waters and Wetlands*). The acreages of jurisdiction by habitat type were not available for this analysis; an updated jurisdictional delineation would be needed to determine the types and amounts of jurisdictional wetlands and waters present by the agency.

The areas presented in the Biological Technical Report are the currently known summary of these resources within the AMP area, and jurisdiction between agencies may overlap. The ditches may be considered non-wetland waters of the U.S. by the USACE/RWQCB and stream channel by CDFW. Vernal pools are expected to fall under the jurisdiction of the RWQCB and potentially USACE, but not CDFW. All portions of southern willow scrub, disturbed wetland, and open water would likely fall under CDFW jurisdiction, and portions of these habitats are expected to fall under USACE and RWQCB jurisdiction. Drainage ditches may be considered non-wetland waters of the U.S. by the USACE/RWQCB and streambed by CDFW. City wetlands are expected to include vernal pools, southern willow scrub, and disturbed wetland, but not open water or drainage ditches. Only the USACE, RWQCB, and CDFW can make a final determination of jurisdictional boundaries.

Table 5.2-2
POTENTIALLY JURISDICTIONAL WATERS AND WETLANDS

Jurisdictional Areas	Area[1] (Ac.)
Wetland	
Southern willow scrub	2.04
Disturbed wetland	0.20
Vernal pool	3.76
Wetland Subtotal	**6.00**
Waters	
Open water	0.21
Drainage ditch	TBD[2]
Waters Subtotal	**0.21**
TOTAL	**6.21**[3]

[1] Rounded to nearest 0.01.
[2] To be determined through a formal jurisdictional delineation prior to project implementation.
[3] Total does not include acreage of potentially jurisdictional drainage ditches.

The project would not impact known vernal pools or other wetlands, or open water habitat. The only potentially jurisdictional resource that may be affected by the AMP consists of a small area of drainage ditch (approximately 17 linear feet of ditch; Figure 5.2-2, *Potential Jurisdictional Waters and Wetland Impacts*). The ditch may be considered non-wetland waters of the U.S. by the USACE/RWQCB and stream channel by CDFW. This potential impact would occur from the addition of pavement at the outer edge of Taxiway D in the southeastern portion of the AMP area.

Impacts to the drainage ditch may require issuance of a CWA Section 404 permit from the USACE, a CWA Section 401 Water Quality Certification or State Porter-Cologne Water Quality Control Act Waste Discharge Requirements from the RWQCB, and/or a Streambed Alteration Agreement from CDFW. Only the USACE, RWQCB, and CDFW can make a final determination of jurisdictional boundaries.

The determination of exact impacts cannot be made at the programmatic level but will be made as future development/redevelopment occurs in accordance with the proposed AMP project implementation, per MM BIO-1. If impacts to wetlands or other jurisdictional areas would occur, they would be regulated by the USACE in accordance with Section 404 of the CWA, RWQCB in accordance with Section 401 of the CWA, CDFW under Section 1600 of CFG Code, the City in accordance with the Biology Guidelines, ESL Regulations, and MSCP SAP, and other agencies as applicable. Impacts to wetlands would be less than significant with the implementation of the existing regulatory framework.

5.2.4.4 Issue 4: Wildlife Movement

Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?

Wildlife corridors and linkages are linear spaces of undeveloped native habitats that connect both large and small natural open space and provide opportunities for wildlife movement on a local and regional scale. Wildlife corridors contribute to the sustainability of populations by providing access

AMP Area
Not A Part*
City of San Diego MHPA
Permanent Impacts
Temporary Impacts
Staging Area

SD Zoo Institute for Conservation Research (2018)
- Burrowing Owl Observation April 2018*(Athene cunicularia)*
- Burrowing Owl Observation May 2018*(Athene cunicularia)*
- Burrowing Owl Observation July 2018*(Athene cunicularia)*

HELIX (2017)
- Yellow Warbler*(Setophaga petechia)*

ECORP (2015)
- Coastal California Gnatcatcher*(Polioptila californica californica)*

ESA (2014)
- Burrowing Owl Breeding Pair*(Athene cunicularia)*
- Burrowing Owl Individual*(Athene cunicularia)*

Sage Institute (2011)
- San Diego Button-celery*(Eryngium aristulatum* var. *parishii)*
- San Diego Fairy Shrimp*(Branchinecta sandiegonensis)*

Vegetation
- Baccharis Scrub
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub - Disturbed
- Developed
- Disturbed Habitat
- Disturbed Wetland
- Maritime Succulent Scrub
- Non-Native Grassland
- Open Water
- Southern Willow Scrub
- Vernal Pool[1]

* Metropolitan Airpark Development Area – Not a Part of Airport Master Plan

[1] Source: Revised Final City of San Diego Vernal Pool Habitat Conservation Plan (2019).

Heritage Rd
Heritage Rd
Unnamed 36B St
Otay Valley Rd
Pogo Row
Datsun St
Innovative Dr
Curran St
Boeing St
Otay Mesa Rd
Pacific Rim Ct
Camino Maquiladora
Cactus Rd
Continental St
Britannia Blvd
Gailes Blvd
Ailsa Ct
Saint Andrews Ave
La Media Rd
Windsock St

0 800 Feet

Source: Aerial (SanGIS, 2023).

I:\PROJECTS\CCSEngineers_02373\CSE-07_AirportMasterPlans\Map\Brown\EIR\Fig5.2-1_VegetationImps.mxd 02373.7.1 12/13/2024 - SAB

HELIX Environmental Planning

Vegetation and Sensitive Biological Resource Impacts

Figure 5.2-1



I:\PROJECTS\CCSEngineers_02373\CSE-07_AirportMasterPlan\Map\Brown\EIR\Fig5.2-2_PotJurisImpacts.mxd 02373.7.1 4/9/2024 - SAB

Source: Aerial (SanGIS, 2023)

HELIX Environmental Planning

Project Impacts/ Potential Jurisdictional Waters and Wetlands

Figure 5.2-2

to larger areas of suitable habitat for dispersal, foraging, and mating. Linkages between wildlife corridors connect isolated blocks of habitat and allow movement or dispersal over a large scale and the mixing of genes between populations (i.e., gene pool diversity).

The AMP area contains areas mapped as MHPA under the City's SAP and VPHCP, as shown in Figure 5.2-1. A total of 133.2 acres of MHPA is mapped within the AMP area; it includes the canyons and associated habitats in the northernmost portions of the property, as well as a portion of the southwestern parcel. Although the AMP area does not act as a linkage, the northern MHPA areas help buffer the Otay River corridor and connect to a small portion of the Otay Valley Regional Park. These MHPA lands contain native habitat used by sensitive wildlife (e.g., coastal California gnatcatcher) and support sensitive plant species.

There are several undeveloped properties to the south of the AMP area, but they are separated from the AMP area by Otay Mesa Road and only provide small areas of low-quality habitat. Wetland habitat on the southwestern parcel is not contiguous with wetland habitat further off-site to the south, as SR 905 is a structural barrier between the two parcels. Connectivity between these two parcels would only be achieved if wildlife traveled along the area adjacent to Heritage Road, underneath an underpass, making it highly constrained.

Although much of the AMP area has been subject to repeated disturbances over many years and, apart from native scrub habitats in the northern canyons, supports a predominance of non-native plant species, these areas continue to provide low- to moderate-quality foraging and breeding habitat for several native species. The AMP area supports several wildlife species (i.e., birds, mammals, reptiles); and while large mammals such as deer are unlikely to use areas on the airfield, medium-sized mammals (i.e., coyotes) are frequently observed on the airfield. Coyotes gain access to the site by digging under the perimeter fence, particularly in the north. No specific regional movement corridors have been identified within the AMP area. Lands surrounding the AMP area to the east, west, and south are bounded by busy roads and have mostly been developed for commercial use.

There are no regionally identified wildlife corridors or habitat linkages within the AMP area. Development associated with the AMP, which are set back more than 500 feet from the MHPA, would entirely avoid impacts within the MHPA and would not create any barriers to wildlife movement within the MHPA or result in impacts to wildlife connectivity between the AMP area and the Otay Valley Regional Park or Otay Ranch Preserve located north of the AMP area. No impact would occur to wildlife corridors or linkages.

5.2.4.5 Issue 5: Conservation Planning

Would the proposed project result in a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?

Multiple Species Conservation Program

The MSCP is a long-term regional conservation plan established to protect sensitive species and habitats within San Diego County. The MSCP is separated into local SAPs that are implemented independently from each other. Projects in the City are reviewed for conformance with the MSCP

SAP guidelines and policies, including compatible land uses, general planning policies and design guidelines, land use adjacency guidelines, general management directives, and area specific directives.

Compatible Land Uses

Land uses deemed compatible with the goals and objectives of the MSCP are allowed within the MHPA. Such uses include passive recreation, utility lines and roads, limited water facilities and other essential public facilities, limited low density housing, Brush Management Zone 2, and limited agriculture.

Activities associated with the AMP are located outside of the MHPA; therefore, no further analysis is required.

General Planning Policies and Design Guidelines

MSCP SAP Planning Policies and Design Guidelines are established for the following actions within the MHPA: roads and utilities; fencing, lighting, and signage; materials storage; mining, extraction, and processing facilities; and flood control.

Activities associated with the AMP are located outside of the MHPA; therefore, no further analysis is required.

Land Use Adjacency Guidelines

To address the integrity of the MHPA and avoid/minimize indirect impacts to the MHPA, guidelines were developed to manage land uses adjacent to the MHPA during the construction and implementation of a project. These guidelines address the issues of drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading/land development. Per the City's SAP, projects that are within or adjacent to the MHPA must demonstrate compliance with the Land Use Adjacency Guidelines.

Lands within the northernmost portion of the AMP area are within and/or adjacent to the MHPA; therefore, implementation and compliance with the LUAGs are required. However, all project impacts associated with the AMP are located entirely outside of the MHPA and at a distance greater than 500 feet from the MHPA; thus, no direct or indirect impacts to the MHPA would occur, and project implementation would not conflict with Land Use Adjacency Guidelines for the MHPA. A discussion of consistency with each guideline is provided below in Table 5.2-3, *MHPA Land Use Adjacency Guidelines Consistency*.

Table 5.2-3
MHPA LAND USE ADJACENCY GUIDELINES CONSISTENCY

MHPA Land Use Adjacency Guideline	Consistency Determination
Drainage. All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must 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.	**Consistent.** All AMP development areas are set back more than 500 feet from the MHPA and would be designed to avoid drainage into the MHPA. Chemicals (i.e., fuel, oil, etc.) required for the operation of the Airport will be handled in a manner that is safe as required by the USEPA. Chemicals, toxins, and petroleum would be prevented from entering the MHPA.
Toxics. Land uses, such as recreation and agriculture, which use chemicals or generate by-products such as manure, which 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.	**Consistent.** No recreation or agriculture are included as part of the AMP. Existing Airport uses would continue, no changes in land use will result from AMP implementation that would cause impacts to the MHPA.
Lighting. Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA.	**Consistent.** The project does not include lighting adjacent to the MHPA.
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.	**Consistent.** The project does not propose development adjacent to the MHPA.
Invasives. No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.	**Consistent.** The project does not include impacts adjacent to the MHPA. Furthermore, the AMP would conform to the City's Landscape Guidelines prohibiting the planting of invasive species, as well as conforming to standard BMPs during construction to help avoid the introduction of invasive plants into the AMP area, and dispersal of invasive plants from the AMP area by equipment. Any revegetation that may occur in association with the AMP would not include invasive species.
Brush Management. New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zones 2 and 3 will be combined into one zone (Zone 2) and may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA.	**Consistent.** The project is not a residential development, does not propose brush management adjacent to the MHPA, and all AMP development impacts are greater than 500 feet from the MHPA.

MHPA Land Use Adjacency Guideline	Consistency Determination
Noise. Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should 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.	**Consistent.** All project components are set back at least 500 feet from the MHPA. No noise impact would occur to resources in the MHPA.
Grading/Land Development. Manufactured slopes associated with AMP area development shall be included within the development footprint for projects within or adjacent to the MHPA.	**Consistent.** The project would not construct manufactured slopes adjacent to the MHPA.

General Management Directives

The project has considered the general MSCP management directives in the overall design and has incorporated components as applicable. The only potentially applicable directive is mitigation, as summarized below.

- *Mitigation – Consistent with general management directives, biological mitigation required for the AMP will be performed in accordance with the City's ESL Ordinance and Biology Guidelines.*

The project would conform to the above directive by ensuring that mitigation is conducted in accordance with the City's Biology Guidelines and implemented through mitigation measures described herein.

Area Specific Management Directives (ASMD) for Lands

The three directives relating to Northeast Otay Mesa/Brown Field are listed below along with the project's consistency with the directives.

Priority 1 Directives:

1. *Delineate the MHPA boundaries along areas of the mesa and slopes north of Brown Field with markers and signs to inform Brown Field employees, contractors, and other people of the boundaries of the MHPA to prevent disturbance of the area. This area should be made off-limits to illegal tilling of the mesas (except where required for brush management), dumping, storage of materials, and other disturbances. Fencing or other protection mechanisms will only be necessary if continued disturbance of these areas is evident.*

Fencing and signs are installed along the MHPA boundary on SDM.

2. *Retain mesa areas which are currently non-native grasslands in order to allow regeneration or continue in their present state, thus providing needed raptor foraging area. If regeneration to coastal sage scrub or other native habitats appears to be unbalancing the need for grassland areas in the future, assess these areas for management that would maintain a grassland (preferably native) community.*

Impacts resulting from the project would avoid the grassland mesa north of Brown Field. Therefore, project activities would not conflict with this management directive. Evaluating potential management needs for this area are tasks that pertain to the City's ongoing San Diego Management and Monitoring Program (SDMMP) for the MSCP. Additionally, there are two ongoing restoration projects being implemented on the mesas in the northern area of the Airport. These sites are mitigation for the MAP project and will be passed on to the City for management after restoration goals have been met for five years or seven years depending on the site.

Priority 2 Directive:

1. The Priority 2 Management Directive for Otay Mesa is: *Evaluate the mesa north of Brown Field for potential research opportunities in studying natural regeneration. If regeneration is not possible, pursue restoration of disturbed habitats in this area*.

Impacts resulting from the project would avoid the mesa north of Brown Field. Therefore, AMP activities would not conflict with this management directive. Evaluating potential research opportunities and restoration for this area are tasks that pertain to the City's ongoing SDMMP for the MSCP. As noted above, active restoration of the mesa in the north is being implemented as required by mitigation for the MAP project.

ASMD for MSCP Covered Species

As noted in the Biological Technical Report (HELIX 2024b), there are 13 MSCP Covered Species detected or with high to moderate potential to occur in the AMP area, including seven species that occur or could occur within, or in proximity to, project development areas (San Diego button-celery, Otay tarplant, San Diego fairy shrimp, Riverside fairy shrimp, northern harrier, BUOW, and American peregrine falcon), and six species with the potential to occur only in the northern canyons, i.e., species whose habitat is sage scrub or maritime succulent scrub (variegated dudleya, San Diego barrel cactus, orange-throated whiptail, coastal cactus wren, coastal California gnatcatcher, and southern California rufous-crowned sparrow). Each of these species is listed below with the project's consistency for each species.

San Diego Button-Celery: *Area specific management directives must include specific measures to protect against detrimental edge effects.*

No direct impacts are expected to occur to San Diego button-celery, which is over 300 feet away from project development impacts. Dust control and implementation of standard construction BMPs would prevent indirect impacts to this species, and biological monitoring during construction would help ensure the avoidance of edge effects. It is noted that this species occurrence is within the impact area for the MAP project and may no longer be extant at the time of future projects implemented under the AMP.

Otay Tarplant: *MSCP coverage of this species requires avoidance of populations in the Otay River Valley through sensitive design and development of the active recreation areas as described in the Otay Ranch RMP and GDP. One of the seven major populations occurs within an amendment area (Proctor Valley). At the time permit amendments are proposed, strategies to provide protection for this species within the amendment area must be included (proposed take authorization amendments will be subject to public review through CEQA and NEPA processes and take*

authorization amendments require approval by CDFW and USFWS). Area specific management directives must include specific measures for monitoring of populations and adaptive management of preserves (taking into consideration the extreme population fluctuations from year to year), and specific measures to protect against detrimental edge effects to this species.

No direct impacts are expected to occur, as this species has not been documented within the airfield portion of the project and regular mowing and airport maintenance activities reduce the quality of potential habitat for this species. A population of this species currently occurs at Mitigation Site A for the MAP project, but it is north of the AMP development area by approximately 1,000 feet. The project will not impact any preserve lands. Dust control and implementation of standard construction BMPs will prevent indirect impacts to this species, and biological monitoring during construction will help ensure the avoidance of edge effects.

San Diego Barrel Cactus: *Area specific management directives must include measures to protect this species from edge effects, unauthorized collection, and include appropriate fire management/control practices to protect against a too frequent fire cycle.*

Implementation of the project is not expected to increase potential edge effects on San Diego barrel cactus given that the habitats in which this species is most likely to occur (sage scrub and maritime succulent scrub) are over 1,000 feet away from future projects proposed under the AMP. Nonetheless, future projects constructed under the AMP would implement dust control, site fencing, and other standard construction BMPs, to minimize the potential for indirect impacts to this species during construction. Biological monitoring also would be implemented during construction to help ensure adherence to BMPs. Further, the areas of potential habitat occur within the MHPA, which will continue to be monitored by the City per the monitoring and management components of the MSCP SAP. There is no public access to the MHPA on SDM, thus guarding against unauthorized collection of this species. Fire control would be implemented if a fire were to occur on-site, as the project site is a municipal airport with adjacent urban development.

Variegated Dudleya: *Area specific management directives must include species-specific monitoring and specific measures to protect against detrimental edge effects, including effects caused by recreational activities. Some populations now occur within a major amendment area (Otay Mountain) and at the time permit amendments are proposed, strategies to provide protection for this species within the amendment area must be included. (Proposed take authorization amendments will have public review through CEQA and NEPA processes and require approval by CDFW and USFWS.)*

The AMP area is not within an MSCP major amendment area. Implementation of the project is not expected to increase potential edge effects on variegated dudleya given that the habitats in which this species is most likely to occur (sage scrub and maritime succulent scrub) are over 1,000 feet away from future projects proposed under the AMP. Nonetheless, future projects constructed under the AMP would implement dust control, site fencing, and other standard construction BMPs, to minimize the potential for indirect impacts to this species during construction. Biological monitoring also would be implemented during construction to help ensure adherence to BMPs. Further, the areas of potential habitat occur within the MHPA, which will continue to be monitored by the City per the monitoring and management components of the MSCP SAP.

San Diego Fairy Shrimp: *Area specific management directives must include specific measures to protect against detrimental edge effects to this species.*

No direct impacts are expected to occur to San Diego fairy shrimp, as this species has not been detected in the project footprint. The nearest documented occurrence is adjacent to existing pavement that will be used for construction staging and the next nearest record is in the same pool as the San Diego button-celery discussed above. Dust control and implementation of standard construction BMPs will prevent indirect impacts to this species, and biological monitoring during construction will help ensure the avoidance of edge effects. It is noted that the two locations discussed above are within the impact area for the MAP project and may no longer be extant at the time of future projects implemented under the AMP.

Riverside Fairy Shrimp: *Area specific management directives must include specific measures to protect against detrimental edge effects to this species.*

No direct impacts are expected to occur to Riverside fairy shrimp, as this species has not been detected in the AMP development footprint. Dust control and implementation of standard construction BMPs will prevent indirect impacts to this species, and biological monitoring during construction will help ensure the avoidance of edge effects.

Orange-throated Whiptail: *Area specific management directives must address edge effects.*

Implementation of the AMP is not expected to increase potential edge effects on orange-throated whiptail given that the habitats in which this species is likely to occur (sage scrub and maritime succulent scrub) are over 1,000 feet away from future projects proposed under the AMP. Nonetheless, the AMP would incorporate measures during construction and post-construction to minimize potential detrimental edge effects to this species, per MM BIO-7. Specifically, work-limits perimeter fencing would be installed, and its accuracy would be verified prior to construction impacts. Biological monitoring also would be implemented during construction to help ensure adherence to BMPs.

American Peregrine Falcon: *No area specific management directives are provided for this species in the MSCP conditions for coverage. It is noted in the document that "This species has very low population numbers in the County, being primarily a rare fall and winter visitor. All three nest sites occur outside of the MHPA: one on Coronado Bridge, one on a crane in Port Authority jurisdiction, and one on Pt. Loma federal lands. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands."*

This species does not have ASMDs, and implementation of projects identified under the AMP would not impact nesting habitat for this species. The AMP would conform to City guidelines and ordinances.

Burrowing Owl: *During the environmental analysis of proposed projects, burrowing owl surveys (using appropriate protocols) must be conducted in suitable habitat to determine if this species is present and the location of active burrows. If burrowing owls are detected, the following mitigation measures must be implemented: within the MHPA, impacts must be avoided; outside of the MHPA, impacts to the species must be avoided to the maximum extent practicable; any impacted*

individuals must be relocated out of the impact area using passive or active methodologies approved by the wildlife agencies; mitigation for impacts to occupied habitat (at the Subarea Plan specified ratio) must be through the conservation of occupied burrowing owl habitat or conservation of lands appropriate for restoration, management and enhancement of burrowing owl nesting and foraging requirements.

Management plans/directives must include enhancement of known, historical and potential burrowing owl habitat; and management for ground squirrels (the primary excavator of burrowing owl burrows). Enhancement measures may include creation of artificial burrows and vegetation management to enhance foraging habitat. Management plans must also include monitoring of burrowing owl nest AMP areas to determine use and nesting success; predator control; establishing a 300-foot-wide impact avoidance area (within the preserve) around occupied burrows.

Protocol BUOW surveys will be conducted prior to the construction of individual projects implemented under the AMP. Locations of active burrows would be noted so that appropriate avoidance measures and buffers can be implemented. Construction activities during the BUOW breeding season (February 1 to August 31) will require biological monitors on-site to detect the presence of BUOW. Impacts to BUOW burrows will require mitigation and monitoring as outlined in the ASMD. Mitigation for loss of occupied habitat will be implemented to offset these impacts.

Coastal Cactus Wren: *The restoration of maritime succulent scrub habitat as specified in the Otay Ranch RMP and GDP must occur at the specified 1:1 ratio. Area specific management directives must include restoration of maritime succulent scrub habitat, including propagation of cactus patches, active/adaptive management of cactus wren habitat, monitoring of populations within preserves and specific measures to reduce or eliminate detrimental edge effects. No clearing of occupied habitat may occur from the period February 15 through August 15.*

The project would not clear occupied habitat for this species; potential habitat is not present within the proposed future work areas. Additionally, implementation of the AMP is not expected to increase potential edge effects on coastal cactus wren given that the habitats in which this species is likely to occur (sage scrub and maritime succulent scrub) are over 1,000 feet away from future projects proposed under the AMP. All areas of potential habitat for this species occur within the MHPA, which will continue to be monitored by the City per the monitoring and management components of the MSCP SAP, with the restoration of maritime succulent scrub and propagation of cactus patches conducted at the discretion of the City as part of the overall SDMMP for the MSCP.

Coastal California Gnatcatcher: *Area specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. Additionally, no clearing of occupied habitat within the City MHPA or County's Biological Core Resource Areas between March 1 and August 15.*

The AMP would not clear occupied habitat for this species; potential habitat is not present within the proposed future work areas. Additionally, implementation of the AMP is not expected to increase potential edge effects on coastal California gnatcatcher given that the habitats in which this species is likely to occur (sage scrub and maritime succulent scrub) are over 1,000 feet away from future projects proposed under the AMP. Fire control would be implemented if a fire were to occur on-site,

as the project site is a municipal airport with adjacent urban development. All areas of potential habitat for this species occur within the MHPA, which will continue to be monitored by the City per the monitoring and management components of the MSCP SAP, with management activities to maintain or improve habitat quality conducted at the discretion of the City as part of the overall SDMMP for the MSCP.

Northern Harrier: *Area specific management directives must: manage agricultural and disturbed lands within four miles of nesting habitat to provide foraging habitat; include an impact avoidance area (900 foot or maximum possible within the preserved) around active nests; and include measures of maintaining winter foraging habitat in preserve areas in Proctor Valley, around Sweetwater Reservoir, San Miguel Ranch, Otay Ranch east of Wueste Road, Lake Hodges, and San Pasqual Valley.*

The AMP would not impact any preserve lands and impacts to foraging habitat would be mitigated according to the City's biology guidelines and the MSCP SAP.

Southern California Rufous-crowned Sparrow: *Area specific management directives must include maintenance of dynamic processes, such as fire, to perpetuate some open phases of coastal sage scrub with herbaceous components.*

Fire would not be used to aid in maintaining dynamic processes due to the site being part of the airport property and presence of adjacent development. Potential habitat for this species occurs on-site only within the MHPA, which is maintained by the City as part of the overall SDMMP for the MSCP. If SDMMP monitoring of the habitat identifies a need to create or perpetuate open phases of coastal sage scrub, it would be conducted through means other than the use of fire (e.g., selective thinning with the use of hand tools).

Future development in accordance with the AMP would be subject to the MHPA Land Use Adjacency Guidelines and thus, implementation of the proposed AMP would be consistent with applicable guidelines as presented in Table 5.2-3. Therefore, impacts related to conflicts with the City's MSCP SAP would be less than significant.

Vernal Pool Habitat Conservation Plan

The VPHCP is a comprehensive plan to provide conservation of vernal pool habitats and seven sensitive vernal pool species where the City relinquished federal coverage under the City's MSCP SAP. The VPHCP serves to expand the City's MHPA, with a focus on the management and conservation of vernal pool habitats and their associated species; particularly, the seven covered species of the VPHCP. Projects in the City are reviewed for conformance with the VPHCP guidelines and policies.

Minor Amendments to the VPHCP

Per Section 8.4.3 of the VPHCP, the Minor Amendment Process has been identified for SDM, from which the following information is taken. The Minor Amendment Process would allow impacts to vernal pool habitat and VPHCP covered species located within the legal boundaries of the airport property while meeting the health and safety requirements of the airports. Any proposed Minor

Amendment requires approval from the USFWS and CDFW. Details of the approval process are described in the following paragraphs.

A Minor Amendment requires a project submittal by the Permittee (Real Estate Assets, Airports Division) to the Wildlife Agencies (USFWS Field Office Supervisor and CDFW's Natural Community Conservation Planning [NCCP] Program Manager) for a consistency determination with the VPHCP. The consistency determination would be based on the VPHCP; the Vernal Pool Management and Monitoring Plan (VPMMP [City 2020]); funding for the required management, monitoring, and reporting activities; and the City's ESL and Biology Guidelines. If a project is consistent with the VPHCP, the Wildlife Agencies will provide a Letter of Concurrence, and the project will proceed in accordance with the VPHCP.

Projects processed via a Minor Amendment that are issued a Letter of Conformance would be afforded the VPHCP benefits of a streamlined environmental and permit process, including:

- Wetland deviation is not required for impacts outside the MHPA;
- Mitigation ratios are set to ensure consistent standards;
- Includes associated VPMMP;
- Covered Activities include all required airport maintenance and operations activities; and
- If Section 7 consultation is required, USFWS issues a streamlined consultation (generally 1-2 pages).

If a project is determined to be not in conformance, or if the Minor Amendment Process is not used, then the VPHCP benefits of the streamlined environmental and permitting process would not apply. Projects would be evaluated on a case-by-case basis consistent with the existing regulations for wetlands not covered by the VPHCP.

Covered Airport Activities

Section 4.2.7 of the VPHCP includes a discussion of the Airport. Federal aviation regulations require the Airport to be maintained and operated in a manner that promotes the health, safety, and welfare of airport users, and the surrounding community. The following are covered airport activities listed in Table 4-7 of the VPHCP: maintenance and inspections of all existing safety areas, runway protection zones, critical areas, infields, runway and taxi shoulders, and storm water conveyances; maintenance, access, inspections, and operation of all existing equipment and infrastructure for public safety and normal airport operations; Capital Improvement Program rehabilitation and/or maintenance of existing airport infrastructure; and maintenance and inspection of existing public right of way access.

While the AMP does not propose impacts to previously documented vernal pools, it is important to note that the covered airport activities for ongoing airport maintenance and operations that are identified in the VPHCP and summarized in the preceding paragraph would apply to future projects constructed under the AMP.

Compliance with Avoidance and Minimization Measures

The project's compliance with the specific avoidance minimization measures contained within the VPHCP are listed below in Table 5.2-4, *VPHCP Consistency*.

Table 5.2-4
VPHCP CONSISTENCY

VPHCP Minimization Measure	Project Compliance
Development adjacent to the MHPA shall slope away from avoided pools.	AMP development areas are not adjacent to the MHPA.
Temporary fencing with silt fencing shall be required	Construction limits would be demarcated with construction and silt fencing
Impacts from fugitive dust would be avoided and minimized through watering and other appropriate measures.	Routine dust control via watering truck would be implemented throughout ground disturbing activities.
A qualified biologist shall be on-site during project construction activities to ensure compliance with all mitigation requirements.	Biological monitoring by a qualified biologist would be implemented during project construction with potential to impact sensitive biological resources.
Employees shall limit activities to the fenced project footprint, and the site shall be kept free of debris and food-related trash items.	A qualified biologist would monitor construction, including verifying that construction activities do not exceed the authorized work limits, and that good housekeeping is adhered to during construction.
Equipment maintenance, staging, and disposal of fuel, oil coolant shall occur within designated areas within the fenced project impact limits.	Designated equipment staging/maintenance/ fueling/etc. shall be demarcated on the final construction plans. Additionally, a qualified biologist would monitor project compliance regarding equipment.
Permanent fencing along the interface with development areas and/or other use other measures approved by the City to deter human and pet access.	The Airport property is fenced and access to the airfield is restricted and controlled.

In summary, the AMP conforms to the provisions of the City's VPHCP and would implement avoidance and minimization measures identified in Section 5.2.1 of the VPHCP. Future development in accordance with the proposed AMP would be subject to compliance with the City's VPHCP Sections 5.2.1 and 5.3.1. Biological surveys will be conducted, per MM BIO-1 and MM BIO-5, prior to each specific project implemented under the AMP. If future surveys identify vernal pools within the AMP impact area, appropriate measures to comply with the VPHCP would be implemented. Therefore, impacts related to conflicts with the City's VPHCP would be less than significant.

5.2.5 Significance of Impacts

5.2.5.1 Sensitive Species

Sensitive Plant Species

Development in accordance with the AMP would not occur in areas that support or are presumed to support sensitive plant species. However, because it cannot be guaranteed that sensitive plant species would be absent when future improvements are implemented, impacts are considered to be

potentially significant. To verify the lack of sensitive species, biological surveys will be conducted for each specific project carried out within the AMP project area. If any sensitive plant species are detected or identified to have a high occurrence potential, then required avoidance or mitigation measures will be implemented.

Sensitive Wildlife Species

Given the overall regional reduction in habitat for the BUOW and population declines, the habitat modification resulting from the permanent removal of 7.2 acres of non-native grassland and the temporary removal of 5.4 acres of non-native grassland (12.6 acres in total) would be considered a significant impact to this species. Moreover, the BUOW is a high-profile species for CDFW, USFWS, and the MSCP, and the City and CDFW have identified this particular BUOW population as important to the long-term survival of the species in San Diego County (ESA and Sage Institute 2016).

Crotch's bumble bee is presumed absent from the AMP area, and impacts are not anticipated. However, because it cannot be guaranteed that Crotch's bumble bee would be absent when future improvements under the AMP are implemented, impacts are considered to be potentially significant.

Based on the adequate species coverage and suitable habitats protected under the MSCP within the MHPA for white-tailed kite, northern harrier, American peregrine falcon, and golden eagle, the loss of 12.6 acres of non-native grassland outside the MHPA is not considered to be a significant habitat modification for these species. As previously discussed, impacts to coastal California gnatcatcher, San Diego fairy shrimp, and Riverside fairy shrimp would be less than significant.

Due to the small number of individuals potentially affected, the relatively small amount of habitat impacted, and the remaining suitable habitat in the AMP area and adjacent conserved lands, impacts to horned lark, loggerhead shrike, grasshopper sparrow, and San Diego black-tailed jackrabbit (species not covered by the MSCP) by the removal of 12.6 acres of non-native grassland would be less than significant. In addition to the direct impacts to the BUOWs from the loss of habitat, indirect impacts to the BUOW could occur if nesting owls are affected by construction. Northern harrier also has the potential to nest in the AMP area, and any impacts to nesting raptors would be considered significant. Significant impacts also could occur if nesting birds were directly impacted by AMP implementation. Short-term noise effects during construction are not considered significant as they (a) would not affect species within the MHPA given the AMP's distance from the MHPA (greater than 500 feet), (b) are not expected to substantially increase noise levels from the existing baseline condition of ongoing Airport operations, and (c) would avoid the BUOW breeding season.

5.2.5.2 Sensitive Habitats

Implementation of the AMP would result in direct impacts to 12.6 acres of Tier IIIB habitats (non-native grassland); these impacts would be considered significant and would require mitigation at ratios prescribed by the City's Biology Guidelines. Significant impacts also could occur if the AMP were to impact lands outside of the approved impact footprint, either directly through habitat removal, or indirectly through runoff, sedimentation, fugitive dust, or other edge effects. Therefore, impacts are considered potentially significant.

5.2.5.3 Wetlands

The AMP would not impact known vernal pools or other wetlands, or open water habitat. The only potentially jurisdictional resource that may be affected by the AMP consists of a small area of drainage ditch (approximately 17 linear feet of ditch). The ditch may be considered non-wetland waters of the U.S. by the USACE/RWQCB and stream channel by CDFW; however, impacts to this non-wetland channel would not be significant under this threshold. Permits from the regulatory agencies would be required if the ditch is determined to be jurisdictional.

5.2.5.4 Wildlife Movement

There are no regionally identified wildlife corridors or habitat linkages on the AMP area. The AMP would entirely avoid impacts within the MHPA and would not create any barriers to wildlife movement. Therefore, no impact would occur to wildlife corridors or linkages.

5.2.5.5 Conservation Planning

Future development in accordance with the proposed AMP would be subject to compliance with applicable current and future local, state, and federal policies, guidelines, directives, and regulations, including but not limited to the FESA, the CESA, the City's ESL Regulations, the regional MSCP, the City's MSCP SAP, and the City's VPHCP. Adherence to the above policies, guidelines, directives, and regulations would avoid future significant impacts. Therefore, the proposed project would not result in a conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan, either within the MSCP Plan area or in the surrounding region. The project conforms to the City's VPHCP and the City's MSCP SAP; therefore, impacts would be less than significant.

5.2.6 Mitigation Framework

5.2.6.1 Sensitive Species

MM BIO-1 **Project-specific Biological Resource Surveys**. Prior to the construction of any improvement project sited within or adjacent to an undeveloped open space area (i.e., an area supporting naturalized habitat, sensitive habitat, and/or habitat potentially suitable for special-status species), the City shall retain a qualified biologist to perform a reconnaissance survey to verify existing biological resources on and adjacent to the project construction areas. The City shall provide the biologist with a copy of project plans that clearly depict the construction work limits, including construction staging, storage, and access areas, to determine which specific portion(s) of the project will require inspection of adjacent open space areas. The survey shall verify whether the planned construction activities would occur on or in the immediate vicinity of habitat suitable for special-status species. The surveys shall also verify whether the construction activities may result in direct or indirect impacts to special-status species. The survey results shall be submitted to the City to determine the need to implement additional mitigation measures to avoid, minimize, and mitigate impacts to such resources, as applicable. If suitable habitat for special-status plant species is confirmed within or immediately adjacent to potential impact

areas of the project, then the City shall retain a qualified biologist to conduct focused presence/absence surveys for rare plants prior to project construction. Surveys shall follow protocols and guidelines approved by the USFWS, CDFW, and CNPS and shall be conducted by qualified biologists. Mitigation for impacts to sensitive plant species with CNPS California Rare Plant Rank 1A, 1B, 2A, or 2B shall be determined by the City in consultation with the CDFW and/or USFWS, as applicable. If suitable habitat for special-status wildlife species is confirmed within or adjacent to potential impact areas of the project, then the City shall retain a qualified biologist to conduct focused, protocol-level surveys for special-status wildlife species prior to commencement of construction activities. Surveys shall follow protocols and guidelines approved by the USFWS and/or CDFW and shall be conducted by qualified biologists permitted by the USFWS and the CDFW, as applicable. Mitigation for impacts to sensitive wildlife species shall be determined by the City in consultation with the CDFW and/or USFWS, as applicable.

MM BIO-2 **Burrowing Owl Pre-construction Survey** The following species-specific mitigation shall be implemented to meet the MSCP SAP Conditions of Coverage for potential impacts to BUOW and associated habitat located outside of the MHPA:

PRE-CONSTRUCTION SURVEY ELEMENT

Prior to Permit or Notice to Proceed Issuance:

1. As this project has been determined to be BUOW occupied or to have BUOW occupation potential, the Applicant Department or Permit Holder shall submit evidence to the Assistant Deputy Director (ADD) of Entitlements and Multiple Species Conservation Program (MSCP) staff verifying that a Biologist possessing qualifications pursuant "Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency Department of Fish and Game. March 7, 2012 (hereafter referred as CDFG 2012, Staff Report), has been retained to implement a BUOW construction impact avoidance program.

2. The qualified BUOW biologist (or their designated biological representative) shall attend the pre-construction meeting to inform construction personnel about the City's BUOW requirements and subsequent survey schedule.

Prior to Start of Construction:

1. The Applicant Department or Permit Holder and Qualified Biologist must ensure that initial pre-construction/take avoidance surveys of the project "site" are completed between 14 and 30 days before initial construction activities, including brushing, clearing, grubbing, or grading of the project site; regardless of the time of the year. "Site" means the project site and the area within a radius of 450 feet of the project site. The report shall be submitted and approved by the Wildlife Agencies and/or City MSCP staff prior to construction or BUOW eviction(s) and shall include maps of the project site and BUOW locations on aerial photos.

2. The pre-construction survey shall follow the methods described in CDFG 2012, Staff Report, Appendix D.

3. Twenty-four hours prior to the commencement of ground-disturbing activities, the Qualified Biologist shall verify the results of pre-construction/take avoidance surveys. Verification shall be provided to the City's Mitigation Monitoring and Coordination (MMC) and MSCP Sections. If results of the pre-construction surveys have changed and BUOW are present in areas not previously identified, immediate notification to the City and Wildlife Agencies shall be provided prior to ground-disturbing activities.

During Construction:

1. **Best Management Practices shall be employed as** BUOWs are known to use open pipes, culverts, excavated holes, and other burrow-like structures at construction sites. Legally permitted active construction projects that are BUOW occupied and have followed all protocol in this mitigation section, or sites within 450 feet of occupied BUOW areas, should undertake measures to discourage BUOWs from recolonizing previously occupied areas or colonizing new portions of the site. Such measures include, but are not limited to, ensuring that the ends of all pipes and culverts are covered when they are not being worked on, and covering rubble piles, dirt piles, ditches, and berms.

2. **On-going BUOW Detection** - If BUOWs or active burrows are not detected during the pre-construction surveys, Section "A" below shall be followed. If BUOWs or burrows are detected during the pre-construction surveys, Section "B" shall be followed. NEITHER THE MSCP SAP NOR THIS MITIGATION SECTION ALLOWS FOR ANY BUOWs TO BE INJURED OR KILLED OUTSIDE **OR** WITHIN THE MHPA; in addition, IMPACTS TO BUOWs WITHIN THE MHPA MUST BE AVOIDED.

   A. Post Survey Follow-Up if Burrowing Owls and/or Signs of Active Natural or Artificial Burrows Are Not Detected During the Initial Pre-Construction Survey - Monitoring the site for new burrows is required using CDFW Staff Report 2012 Appendix D methods for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete *(NOTE - Using a projected completion date (that is amended if needed) will allow the development of a monitoring schedule).*

   1) If no active burrows are found but BUOWs are observed to occasionally (one to three sightings) use the site for roosting or foraging, they should be allowed to do so with no changes in the construction or construction schedule.

   2) If no active burrows are found but BUOWs are observed during follow-up monitoring to repeatedly (four or more sightings) use the site for roosting or foraging, the City's MMC and MSCP Sections shall be notified, and any portion of the site where owls have been sites and that has not been graded or otherwise disturbed shall be avoided until further notice.

3) If a BUOW begins using a burrow on the site at any time after the initial pre-construction survey, procedures described in Section B must be followed.

4) Any actions other than these require the approval of the City and the Wildlife Agencies.

B. Post Survey Follow-Up if Burrowing Owls and/or Active Natural or Artificial Burrows are detected during the Initial Pre-Construction Survey - Monitoring the site for new burrows is required using Appendix D CDFG 2012, Staff Report for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete *(NOTE - Using a projected completion date (that is amended if needed) will allow development of a monitoring schedule which adheres to the required number of surveys in the detection protocol).*

1) This section (B) applies only to sites (including biologically defined territory) wholly outside of the MHPA – **all direct and indirect impacts to BUOWs within the MHPA SHALL be avoided.**

2) If one or more BUOWs are using any burrows (including pipes, culverts, debris piles, etc.) on or within 300 feet of the proposed construction area, the City's MMC and MSCP Sections shall be contacted. The City's MSCP and MMC Section shall contact the Wildlife Agencies regarding eviction/collapsing burrows and enlist an appropriate City biologist for ongoing coordination with the Wildlife Agencies and the qualified consulting BUOW biologist. No construction shall occur within 300 feet of an active burrow without written concurrence from the Wildlife Agencies. This distance may increase or decrease, depending on the burrow's location in relation to the site's topography, and other physical and biological characteristics.

a) **Outside the Breeding Season** - If the BUOW is using a burrow on-site outside the breeding season (i.e., September 1 - January 31), the BUOW may be evicted after the qualified BUOW biologist has determined via fiber optic camera or other appropriate device, that no eggs, young, or adults are in the burrow. Eviction requires the preparation of an Exclusion Plan, prepared in accordance with CDFW Staff Report 2012, Appendix E (or the most recent guidance available) for review and submittal to Wildlife Agencies. Written concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation.

b) **During Breeding Season** - If a BUOW is using a burrow on-site during the breeding season (Feb 1- Aug 31), construction shall not occur within 300 feet of the burrow until the young have fledged and are no longer dependent on the burrow, at which time the BUOWs can be evicted. Eviction requires the preparation of an Exclusion Plan, prepared in accordance with CDFW Staff Report 2012, Appendix E (or the most recent guidance available) for review and submittal to Wildlife Agencies. Written

concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation.

3. Survey Reporting During Construction - Details of construction surveys and evictions (if applicable) carried out shall be immediately (within five working days or sooner) reported to the City's MMC, and MSCP Sections, and the Wildlife Agencies and must be provided in writing (as by e-mail) and acknowledged to have been received by the required Agencies and DSD Staff member(s).

Post Construction:

Details of all surveys and actions undertaken on-site with respect to BUOWs (i.e., occupation, eviction, locations, etc.) shall be reported to the City's MMC Section and the Wildlife Agencies within 21 days post-construction and prior to the release of any grading bonds. This report must include summaries of all previous reports for the site; and maps of the project site and BUOW locations on aerial photos.

MM BIO-3 Burrowing Owl Occupied Habitat

Impacts to non-native grassland occupied by BUOW will be mitigated in-kind at ratios identified in BIO-4 and such mitigation lands must be through the conservation of occupied BUOW habitat or conservation of lands appropriate for restoration, management, and enhancement of BUOW nesting and foraging requirements. Such lands will either be within the MHPA, contiguous with MHPA lands or other preserve lands, or in another location with long-term viability that is acceptable to the City, CDFW, and USFWS. The search for potential mitigation land will focus first on lands within Otay Mesa. If mitigation land cannot be located within Otay Mesa, suitable lands within the City's MSCP SAP boundary will be considered.

A BUOW Mitigation Plan shall be prepared and approved by the City, CDFW, and USFWS prior to the issuance of any construction permits associated with the AMP.

5.2.6.2 Sensitive Habitats

MM BIO-4 Sensitive Habitat Mitigation Ratios. Impacts to 12.6 acres of non-native grassland (Tier IIIB) habitat (composed of 7.2 acres of permanent impact and 5.4 acres of temporary impact) shall be mitigated through a minimum of 1:1 preservation if mitigation occurs outside the MHPA or 0.5:1 preservation if mitigation occurs within the MHPA (Table 5.2-5 *Mitigation for Impacts to Sensitive Habitats*). Mitigation for temporary impacts may occur through on- or off-site preservation or through on-site restoration of the temporary impact areas.

Table 5.2-5
MITIGATION FOR IMPACTS TO SENSITIVE HABITATS (acres)[1]

Habitat	Tier	Impact		Mitigation Ratio[2] Outside MHPA/ Inside MHPA	Required Mitigation
		Permanent	Temporary		
Sensitive Uplands Habitat					
Non-native grassland	IIIB	7.2	5.4	1:1/0.5:1	12.6 / 6.3[3]
	TOTAL	**7.2**	**5.4**	**--**	**12.6 / 6.3**

[1] All data is in acres rounded to the nearest 0.1 acre.
[2] Mitigation ratios per City Biology Guidelines and all mitigation is inside the MHPA.
[3] A total of 12.6 acres of mitigation required if mitigation occurs outside the MHPA, 6.3 acres if inside the MHPA.

MM BIO-5 **Vernal Pool Surveys.** Updated surveys to map vernal pools will be conducted prior to the implementation of AMP projects that would affect non-developed lands (i.e., non-native grassland or disturbed habitat).

MM BIO-6 **Biological Monitoring During Construction.** Construction monitoring will be required during project construction. A qualified biologist will verify the limits of construction and provide biological monitoring during the installation of construction fencing, as well as during clearing and grubbing.

5.2.6.3 Biological Resource Protection

The following biological resource protection measures will be implemented during construction to help ensure the avoidance of indirect impacts to sensitive habitat and species, and such measures will be shown on the construction plans:

MM BIO-7 **Construction Plan Requirements.** Prior to the issuance of any grading permit, the City Manager (or appointed designee) shall verify that the following AMP requirements are shown on the construction plans:

I. Prior to Construction

A. Biologist Verification – The owner/permittee shall provide a letter to the City's MMC section stating that a project Biologist (Qualified Biologist), as defined in the City Biological Guidelines (2012), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. Pre-construction Meeting – The Qualified Biologist shall attend the pre-construction meeting, discuss the project's biological monitoring program, and arrange to perform any follow-up mitigation measures and reporting, including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

C. Biological Documents – The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports,

including but not limited to, maps, plans, surveys, survey timelines, or buffers, are completed or scheduled per City Biology Guidelines, MSCP, ESL Ordinance, project permit conditions; CEQA; ESAs; and/or other local, state or federal requirements.

D. Biological Construction Mitigation/Monitoring Exhibit (BCME)– The Qualified Biologist shall present a BCME that includes the biological documents in C above. In addition, include restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, BUOW exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME shall include a site plan, a written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.

E. Avian Protection Requirements – To avoid direct impacts to avian species identified as a listed, candidate, sensitive, or special status species (BUOW, coastal cactus wren, northern harrier, white-tailed kite, horned lark, grasshopper sparrow, loggerhead shrike, coastal California gnatcatcher, southern California rufous-crowned sparrow, and yellow warbler), no clearing, grubbing, or grading shall occur during the general avian breeding season (February 1 to September 15) without a pre-construction nesting bird survey. If grubbing, clearing, or grading would occur during the general avian breeding season, a qualified biologist shall survey the project area no more than seven days prior to the commencement of the activities to determine if active bird nests belonging to listed, candidate, sensitive, or special status species are present in the affected areas. If the qualified biologist determines that no active nests occur, the activities shall be allowed to proceed. If the qualified biologist determines that an active nest is present, appropriate setbacks shall be implemented as determined by the biologist. No impacts shall occur until the young have fledged the nest and the nest is confirmed to no longer be active, as determined by the qualified biologist. The results of the pre-construction nesting bird survey shall be reported to the City in a brief memorandum.

F. BUOW Protection Requirement – No clearing, grubbing, grading, or other construction activities shall occur in occupied burrowing habitat between February 1 and August 31, the breeding season of the BUOW.

G. Resource Delineation – Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species,

including nesting birds) during construction. Appropriate steps/care should be taken to minimize the attraction of nest predators to the project site.

H. Education – Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site area educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

II. During Construction

A. Monitoring – All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be e-mailed to MMC on the first day of monitoring, the first week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

B. Subsequent Resource Identification – The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on-site (e.g., flag plant specimens for avoidance during access, etc.). If active nests, burrows, or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species-specific local, state, or federal regulations have been determined and applied by the Qualified Biologist.

III. Post-Construction Measures

A. In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, State CEQA, and other applicable local, state, and federal laws. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

5.2.7 Significance of Impacts after Mitigation

5.2.7.1 Sensitive Species

Implementation of mitigation measures BIO-1, BIO-2, and BIO-3 would reduce impacts to below a level of significance.

5.2.7.2 Sensitive Habitats

Implementation of mitigation measures BIO-4, BIO-5, and BIO-6 would reduce impacts to below a level of significance.

5.2.7.3 Biological Resource Protection

Implementation of mitigation measure BIO-7 would reduce impacts to below a level of significance.

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5.3 Geology and Soils

This section of the PEIR addresses potential impacts related to geological conditions that could result from the implementation of the AMP.

5.3.1 Existing Conditions

The existing environmental setting, which includes a detailed description of existing geologic conditions within the AMP area is contained in Section 2.4.3 of this PEIR. Section 4.3 of this PEIR includes a summary of the regulatory framework relative to geology and soils.

5.3.2 Methodology and Assumptions

Potential impacts resulting from the implementation of the proposed AMP were evaluated based on relevant information from the CDWR, MAP (MAP FEIR 2013 [SCH 2010071054]), and the Otay Mesa Community Plan Update (OMCPU FEIR 2013 [SCH 2004651076]). Based on a review of relevant maps and geologic documentation, the analysis presents the potential for geological impacts to occur within the AMP area.

Site conditions may change, and additional data may become available. Data reported and conclusions drawn in this section are limited to current conditions and may not be relied upon at a substantially later date or if changes have occurred in the AMP area. Reasonable efforts were made to identify geologic hazards. “Reasonable efforts” are limited to information gained from readily accessible public data. Such methods may not identify geologic or geotechnical issues that are not listed in these sources.

5.3.3 Significance Determination Thresholds

Based on the City’s CEQA Significance Determination Thresholds (City 2022a), a significant impact related to geology and soils would occur if the proposed project would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides;

2. Result in substantial soil erosion or the loss of topsoil; or

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

5.3.4 Impact Analysis

5.3.4.1 Issue 1: Seismic Hazards

Would the proposed project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides?

Fault Rupture and Seismic Ground Shaking

Implementation of the proposed project could result in the exposure of people, buildings, and infrastructure to seismic hazards. Ground shaking during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and the type of geologic material underlying the area. The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill or unconsolidated alluvial fill.

While the AMP area is not underlain by active or potentially active earthquake faults, the AMP area could be subject to ground shaking in the event of an earthquake along faults in the Southern California/Northern Baja California region. The nearest active fault capable of causing ground rupture and strong seismic shaking is the Rose Canyon fault zone, located approximately nine miles west of the AMP area.

Future development under the proposed AMP would be required to conform to applicable regulatory/industry and code standards related to geologic hazards, including pertinent elements of the Seismic Hazards Mapping Act, Alquist-Priolo Earthquake Fault Zoning Act, CBC, and related City standards. Structural design in accordance with current building codes would reduce the impact associated with seismic ground shaking on buildings to an acceptable risk.

Liquefaction and Seismically Induced Settlement

Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluid-like behavior of the soil. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. Research and historical data indicate that loose granular soils and non-plastic silts that are saturated by a relatively shallow groundwater table are susceptible to liquefaction. Among the potential hazards related to liquefaction is seismically induced settlement. Seismically induced settlement is caused by the reduction of shear strength due to loss of grain-to-grain contact during liquefaction and may result in dynamic settlement on the order of several inches to several feet. Other factors such as earthquake magnitude, distance from the earthquake epicenter, the thickness of the liquefiable layers, and the fines content and particle sizes of the liquefiable layers also affect the amount of settlement.

The AMP area contains areas of unmapped artificial fill, which could be susceptible to liquefaction during a seismic event. Future development activities would be required to conform to applicable

regulatory/industry and code standards related to liquefaction and associated hazards. Specifically, this would involve compliance with pertinent elements of the CBC and related City standards via ground improvement or foundation design. Implementation of appropriate measures would reduce potential impacts related to seismic liquefaction and associated settlement from the proposed project to an acceptable risk.

Landslides

Landslides and other slope failures may occur in hillside areas due to a number of factors, including seismic ground shaking or substantial rainfall. Structures, engineered slopes, roadways, utilities, and people located on or below unstable areas could be subject to severe damage or injury. Landslide, debris flows, and surficial material failures affect the area where the material originates, as well as downslope areas where the landslide debris accumulates.

According to the OMCPU EIR, the proposed AMP is not located within a mapped landslide zone (OMCPU EIR 2013). The AMP area is predominantly characterized by previously graded land and associated airport facilities. While there are exposed slopes in the northern portion of the AMP area, this area is not proposed for development. Nevertheless, future development implemented under the proposed AMP would be required to complete a geotechnical investigation and comply with the SDMC and CBC to mitigate potential landslide hazards.

Tsunamis, Seiches, and Dam Failures

A tsunami is a sea wave generated by a submarine earthquake, landslide, or volcanic action. Submarine earthquakes are common along the edge of the Pacific Ocean, thus exposing all Pacific coastal areas to the potential hazard of tsunamis. However, no portion of the proposed AMP lies within a mapped tsunami inundation zone due to its inland location (DOC 2019).

A seiche is an earthquake-induced wave in a confined body of water, such as a lake, reservoir, or bay. The proposed AMP is not located in proximity to water features that are capable of generating substantial seiche-related hazards.

An earthquake-induced dam failure can result in a severe flood event. When a dam fails, a large quantity of water is suddenly released with a great potential to cause human casualties, economic loss, lifeline disruption, and environmental damage. The proposed AMP is not located within a mapped dam inundation zone (CDWR 2019).

Summary

Building construction in accordance with the SDMC and CBC would reduce potential seismic hazards to an acceptable level of risk. Therefore, while the proposed AMP area would be subject to seismic events, potential hazards associated with ground shaking and seismically induced hazards such as ground failure; liquefaction and seismically induced settlement; or landslides would be reduced through the implementation of site-specific geotechnical requirements associated with future development under the proposed project.

5.3.4.2 Issue 2: Erosion and Sedimentation

Would the proposed project result in substantial soil erosion or loss of topsoil?

Erosion hazards can be increased through development-related activities such as excavation/ grading and removal of stabilizing structures and vegetation. Developed areas would be most susceptible to erosion between the beginning of grading/construction and the installation of pavement or the establishment of permanent cover in landscaped areas. Erosion and sedimentation are not considered to be long-term concerns in the AMP area, as developed areas would be stabilized through the installation of structures, hardscape, and landscaping. The AMP area is characterized by relatively flat terrain with developed spaces occupying the southern and central portions of the property. Natural spaces occur on the periphery of the property, particularly the northern and western portions.

Future development in the AMP area could involve grading activities that remove existing pavement and ground cover, thereby exposing soils to potential runoff and erosion during construction if protective measures are not taken. Compliance with City grading requirements would ensure that future construction operations would avoid significant soil erosion impacts. SDMC Section 142.0146 requires 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 require the implementation of 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 the development's potential erosion and sedimentation impacts.

Future development in the AMP area that would disturb less than one acre of land would require the implementation of a Water Pollution Control Plan (WPCP), which would include (among other things) erosion and sedimentation control BMPs. Similarly, future development within the AMP area involving clearing, grading, or excavation that causes soil disturbance that would result in soil disturbance of one or more acres, would be subject to the requirements of the NPDES Construction General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). This requires the implementation of a SWPPP (refer to Section 4.7.2.2) and associated BMPs, including appropriate measures to address erosion and sedimentation. Compliance with NPDES and City requirements would reduce the potential for substantial erosion or topsoil loss to occur in the AMP area. Thus, with adherence to existing regulations, impacts would be less than significant.

5.3.4.3 Issue 3: Geologic Instability

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

Landslides and Slope Instability

According to the OMCPU, the proposed AMP area is not located within a mapped landslide zone. The AMP area is predominantly characterized by previously graded land and associated airport facilities. While there are exposed slopes in the northern portion of the AMP area, this area is not proposed for development. Nevertheless, future development implemented under the proposed AMP would be required to complete a geotechnical investigation and comply with the SDMC and CBC to prevent potential landslide hazards.

Liquefaction and Lateral Spreading

Liquefaction occurs when loose, saturated granular materials undergo matrix rearrangement, develop high pore water pressure, and lose shear strength. Manifestations of soil liquefaction can include loss of bearing capacity below foundations, surface settlements and tilting in level ground, and instabilities in areas of sloping ground. Soil liquefaction can also result in increased lateral and uplift pressures on buried structures. Lateral spreading occurs on slopes in areas characterized by liquefaction-prone soil.

The AMP area contains unmapped artificial fill, which could be susceptible to liquefaction during a seismic event. Future development in the AMP area would be required to conform to applicable regulatory/industry and code standards related to liquefaction and associated hazards, including lateral spreading. Specifically, this would involve pertinent elements of the Seismic Hazards Mapping Act, CBC, and related City standards. Implementation of appropriate measures in conformance with applicable regulatory/industry standards would reduce potential impacts related to liquefaction and lateral spreading to an acceptable risk.

Subsidence and Collapse

Non-seismic soil subsidence is most typically associated with conditions such as karst/limestone terrain (i.e., the formation of subsurface cavities by dissolution of soluble rocks), subsurface mining, large-scale groundwater or oil and gas withdrawal, or decomposition of thick organic (peat) layers. Settlement of unconsolidated soil (fill or alluvium) may occur locally where new loads are imposed on previously un-compacted fill, compacted fill on unconsolidated alluvium, or on unconsolidated alluvium. Subsidence can result in a loss of support capability within the associated soil or formational materials, potentially resulting in damage to surface and subsurface structures such as buildings, pavement, and utilities.

Soil collapse, or near-surface subsidence, is generally associated with: (1) hydroconsolidation, the tendency of unsaturated soils to rapidly lose fine material upon saturation; and (2) water table depression (lowering) due to groundwater withdrawal. Collapse associated with hydroconsolidation is most common in arid and semi-arid areas, with the associated effects generally localized but potentially substantial. Collapse related to groundwater withdrawal generally occurs over a wide

region and a longer timeframe (i.e., decades), with less noticeable short-term effects. Soil collapse can result in settlement and related effects to overlying foundations or other improvements.

Although there are no mapped limits of artificial fill, it generally underlies portions of the AMP area associated with the construction of buildings or infrastructure (MAP EIR 2013). Where artificial fill may have been placed without proper engineering controls and inspections, the material may be susceptible to dynamic consolidation and subsidence, especially where thick artificial fills have been placed against denser old alluvium or bedrock materials. Future development would be subject to site-specific geotechnical review per applicable regulatory/industry standards (including City and CBC criteria), with associated remedial requirements potentially including efforts such as removal of unstable or unsuitable materials, use of properly engineered fill, and provision of appropriate foundations and/or soil improvements (e.g., deep soil mixing) to provide support to ensure stability.

Expansive Soils

Expansive soils generally contain fine-grained clays susceptible to expansion under wetting conditions and contraction under drying conditions. This swelling and shrinking of the soil can cause damage to slabs, foundations, and concrete flatwork. Very Old Paralic Deposits underlie the AMP area (OMCPU EIR 2013). The deposits consist of clay (mudstone) overlying sandstone that grades to a gravel and cobble conglomerate. According to the OMCP, geotechnical tests previously performed in the area indicate that the mudstone is highly expansive. As a result, future development activities may be subject to potentially significant impacts related to expansive soils.

Future development under the proposed AMP would be required to conform to applicable regulatory/industry and code standards related to expansive soil hazards. Specifically, this would involve pertinent elements of the CBC and related City standards and the implementation of associated potential standard remedial efforts to remedy the effects of expansive soil in susceptible areas. A development-specific geotechnical investigation would be required in accordance with the SDMC to identify the presence of expansive soils and provide recommendations to be implemented during grading and construction to ensure that potential hazards associated with expansive soils are minimized. Typical remediation measures include removal/replacement or, if applicable, the mixing of unsuitable materials with engineered and non-expansive fill; capping expansive materials with engineered fill in applicable areas; and use of appropriate foundation and/or footing design per development-specific geotechnical recommendations.

Shallow Groundwater

According to the MAP EIR, groundwater in the area is typically greater than 50 feet deep but can fluctuate with time and season from year to year (MAP EIR 2013). Groundwater at the Airport site was not encountered in the borings that were drilled for the geotechnical investigation for the MAP project. Site-specific information on groundwater depth is not available for the AMP area. However, near-surface groundwater (less than 20 feet deep) is unlikely to occur in the geologic formations underlying the AMP area (OMCPU EIR 2013). The permanent groundwater table is expected to be too deep to affect geologic and soil conditions associated with future development within the AMP area. If groundwater is encountered during future development, temporary dewatering to accommodate grading and excavation would be subject to associated requirements under the appropriate NPDES Groundwater Permit.

5.3.5 Significance of Impacts

5.3.5.1 Seismic Hazards

Future development activities under the proposed AMP would be required to comply with applicable regulatory/industry standards and codes, including the CBC and SDMC to reduce potential seismic hazards to an acceptable level of risk. Thus, while the project would be subject to seismic events, potential hazards associated with ground shaking and seismically induced hazards such as ground failure, liquefaction, or landslides would be reduced through the implementation of site-specific geotechnical requirements associated with future development within the AMP area. Therefore, impacts related to seismic hazards would be less than significant.

5.3.5.2 Erosion and Sedimentation

Future development projects implemented under the proposed AMP would be required to comply with applicable regulatory/industry standards and codes, including the SDMC (grading requirements), the City's Storm Water Program, and NPDES requirements to reduce potential impacts related to erosion and sedimentation hazards to an acceptable level of risk. Therefore, impacts would be less than significant.

5.3.5.3 Geologic Instability

Future development projects implemented under the proposed AMP would be required to comply with applicable regulatory/industry standards and codes, including the SDMC and CBC to reduce potential impacts related to geologic instability to an acceptable level of risk. Potential hazards associated with instability would be addressed by the site-specific recommendations contained within geotechnical investigations as required by the SDMC. Therefore, impacts would be less than significant.

5.3.6 Mitigation Framework

Implementation of the proposed project would result in less than significant impacts to geology and soils. No mitigation is required.

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5.4 Greenhouse Gas Emissions

This section of the PEIR addresses potential impacts to GHG emissions that could result from the construction and operation of improvements included within the proposed AMP. The analysis of non-flight operations, such as vehicular use and building energy use, is based on the *Brown Field Municipal Airport Master Plan Update GHG Emissions Technical Report* (HELIX 2024c), which is included as Appendix E of this PEIR. Aircraft-related GHG impacts are based on the *Airport Master Plan Study for Brown Field Municipal Airport – 2037 Forecast Noise and Air Quality Modeling Assumptions Technical Memorandum* (HMMH 2019), which is included as Appendix C.

5.4.1 Existing Conditions

The existing environmental setting, which includes a discussion of existing GHG emissions and inventories, is contained in Section 2.4.4 of this PEIR. Section 4.4 of this PEIR includes a summary of the regulatory framework relative to GHG emissions.

5.4.2 Methodology and Assumptions

GHG emissions from the AMP's proposed construction activities and non-aircraft operational sources were calculated using CalEEMod, Version 2022.1. Non-operational sources of GHG emissions include mobile (transportation sources), area sources, water and wastewater sources, solid waste sources, and refrigerants. GHG emissions from the AMP's proposed aircraft activity were assessed by HMMH (2019) in accordance with the FAA's *Aviation Emissions and Air Quality Handbook, Version 3, Update 1* (FAA 2015) and were estimated using the AEDT. Additional information pertaining to methodology and assumptions for emissions modeling is contained in Section 5.1, Air Quality, of this PEIR.

5.4.3 Significance Determination Thresholds

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual development projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change. Thus, the potential for a significant GHG impact is limited to cumulative impacts.

Based on the City's CEQA Significance Determination Thresholds (City 2022a), a significant GHG emissions impact would occur if the implementation of the proposed project would:

1. Generate GHG emissions, 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.

The City Council approved an amendment to the LDC that incorporated a revised CAP consistency checklist (Consistency Regulations), which replaced the CAP Consistency Checklist as the measures

that could be implemented on a project-by-project basis pursuant to CEQA Guidelines Section 15183.5(b)(1)(D). The environmental analysis for public infrastructure projects should include a discussion of overall consistency with each of the strategies of the 2022 CAP: Strategy 1: Decarbonization of the Built Environment; Strategy 2: Access to Clean and Renewable Energy; Strategy 3: Mobility and Land Use; Strategy 4: Circular Economy and Clean Communities; Strategy 5: Resilient Infrastructure and Healthy Ecosystems; and Strategy 6: Emerging Climate Action (City 2022b).

5.4.4 Impact Analysis

5.4.4.1 Issue 1: Greenhouse Gas Emissions

Would the proposed project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction

Construction activities associated with the implementation of the proposed AMP would result in emissions of GHGs from the use of construction equipment, from worker and vendor vehicles, and from haul trucks. For the purposes of disclosing the increase in GHG emissions that would occur as a result of the implementation of the proposed AMP, the analysis within the *Greenhouse Gas Technical Report* developed an inventory of construction emissions using CalEEMod (HELIX 2024c). Table 5.4-1, *Maximum Annual Construction GHG Emissions*, shows the estimated maximum annual construction GHG emissions through the horizon of the proposed AMP. These maximum annual emissions estimates assume that construction of each improvement task listed in Table 3-6 would occur sequentially without gaps for each construction period, starting in 2025. Actual annual emissions would be lower if construction of improvement tasks were spread throughout each construction period.

Table 5.4-1
MAXIMUM ANNUAL CONSTRUCTION GHG EMISSIONS

Construction Period	Annual Emissions (MT CO_2e/year)
Near-Term (maximum in 2025)	419.6
Mid-Term (maximum in 2026)	431.6
Long-Term (maximum in 2030)	209.4
Maximum Annual	**419.6**

Source: HELIX 2024c
MT = metric tons; CO_2e = carbon dioxide equivalent

Non-Flight Operations

Existing sources of non-aircraft related GHG emissions associated with the operation of the Airport include: mobile sources such as exhaust from visitor, pilot, employee, and vendor vehicles; area sources such as the use of landscape maintenance and aviation support equipment; the use of consumer products and paint for cleaning and maintenance; indirect emissions from off-site generation of electric used by project buildings; direct emissions from the use of natural gas in

project buildings; indirect emissions from the treatment and transport of water and wastewater, indirect emissions from the disposal of solid waste; and direct emission from leaks of refrigerants from building HVAC systems and appliances. For the purposes of disclosing the increase in GHG emissions that would occur as a result of implementation of the proposed AMP, the potential increase in non-aircraft operational emissions resulting from implementation of the project is shown in Table 5.4-2, *Unmitigated Annual Operation GHG Emissions (Non-Aircraft)*.

Table 5.4-2
UNMITIGATED ANNUAL OPERATION GHG EMISSIONS (NON-AIRCRAFT)

Source	Annual Emissions (MT CO_2e/year)
Mobile	285.9
Area	2.6
Energy	87.8
Water and Wastewater	9.1
Solid Waste	12.7
Refrigerants	0.4
Total Annual	**398.6**

Source: HELIX 2024c.
MT = metric tons; CO_2e = carbon dioxide equivalent

Aircraft-related Operations

Existing sources of aircraft-related GHG emissions associated with the operation of the Airport include aircraft engines and APUs. For the purposes of disclosing the increase in GHG emissions that would occur from the implementation of the proposed AMP, the potential increase in aircraft operational emissions resulting from the implementation of the project is shown in Table 5.4-3, *Annual Operation GHG Emissions (Aircraft)*.

Table 5.4-3
ANNUAL OPERATION GHG EMISSIONS (AIRCRAFT)

Source	Annual Emissions (MT CO_2e/year)
2017 Baseline Aircraft Total	4,202.9
2037 Forecast Aircraft Total	10,821.7
Net Change	**6,608.8**

Source: HMMH 2019.
MT = metric tons; CO_2e = carbon dioxide equivalent

CAP Consistency

To determine the significance of GHG emissions attributable to the implementation of the proposed AMP, the project was evaluated for consistency with the City's CAP consistency regulations utilizing the City's Implementation Strategies and guidance memo for Plan- and Policy-Level Environmental Documents and Public Infrastructure Projects (2022). These Strategies outline how the City will achieve GHG reductions through the following:

Strategy 1: Decarbonization of the Built Environment

The City has adopted a goal to achieve zero emissions in municipal buildings and operations by 2035. If any new project building or renovation of existing buildings were to utilize natural gas, the project would be inconsistent with the City's 2022 CAP, resulting in a potentially significant impact.

Strategy 2: Access to Clean & Renewable Energy

Similar to Strategy 1, above, if any new project building or renovation of existing buildings were to utilize natural gas, the project would be inconsistent with State goals and City 2022 CAP goals for 100 percent renewable energy, resulting in a potentially significant impact.

Strategy 3: Mobility & Land Use

The Airport is not within a TPA designated by the City. The project would not conflict with City plans for bicycle, pedestrian, or transit infrastructure improvement projects, or conflict with Strategy 3 of the City's 2022 CAP.

Strategy 4: Circular Economy & Clean Facilities

The City ordinance Article 6, Division 6, Construction and Demolition Debris Diversion Deposit Program, requires all applicants for a Building Permit or a Demolition/Removal Permit to submit a Waste Management Form and divert 75 percent by weight of the total construction and demolition debris to a certified recycling facility. Because some construction and demolition activities associated with the implementation of the AMP may not be subject to the City's Construction and Demolition Debris Diversion Deposit Program ordinance, if a minimum of 75 percent of all project construction and demolition debris (including pavement) would not be diverted to a certified recycling facility, the project would be inconsistent with Strategy 4 of the City's 2022 CAP, resulting in a potentially significant impact.

Strategy 5: Resilient Infrastructure and Healthy Ecosystems

The project does not include the removal of existing trees or the planting of new trees on streets within the public right-of-way of streets. The project would not conflict with Strategy 5 of the City's 2022 CAP.

Strategy 6: Emerging Climate Action

The project would not conflict with or obstruct the implementation of any State of City emerging CAP, goal, or strategy (e.g., carbon capture). The project would not conflict with Strategy 6 of the City's 2022 CAP.

5.4.4.2 Issue 2: Conflict with GHG Reduction Plans or Policies

Would the proposed project conflict with the City's CAP or another applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?

The project was analyzed for conflicts with the City's 2022 CAP, the Regional Plan; and the CARB 2022 Scoping Plan.

City of San Diego 2022 Climate Action Plan

As discussed above, without requiring all new or renovated project buildings to be all electric and requiring a 75 percent construction and demolition debris diversion rate, the project would be inconsistent with the City's 2022 CAP resulting in a potentially significant impact.

San Diego Association of Governments Regional Plan

The purpose of the Regional Plan is to provide direction and guidance on future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout San Diego County as stipulated under SB 375. Implementation of the project would not result in regional residential growth and the Airport is not within a TPA identified in the Regional Plan. Therefore, the proposed project would not conflict with the goals and measures of the Regional Plan for the reduction of transportation-related GHGs.

California Air Resources Board 2022 Scoping Plan

There are numerous state plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The principal overall state plan and policy is AB 32, the California Global Warming Solutions Act of 2006. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. SB 32 requires further reductions of 40 percent below 1990 levels by 2030. Beyond 2030, AB 1279 aims to achieve carbon neutrality in the state by 2045. The 2022 Scoping Plan lays out a path for achieving the regulatory requirements of AB 32, SB 32, and AB 1279. Statewide plans and regulations such as GHG emissions standards for vehicles (AB 1493), the LCFS, and regulations requiring an increasing proportion of electricity to be generated from renewable sources are being implemented at the statewide level; as such, compliance at the project level is not addressed. Therefore, the proposed project would not conflict with state GHG reduction plans and regulations.

5.4.5 Significance of Impacts

5.4.5.1 Greenhouse Gas Emissions

Without requiring all new or renovated project buildings to be all electric and requiring a 75 percent construction and demolition debris diversion rate, the project would be inconsistent with the City's 2022 CAP requirements for infrastructure projects. Therefore, the impact would be potentially significant.

5.4.5.2 Conflict with GHG Reduction Plans or Policies

Without requiring all new or renovated project buildings to be all electric, and requiring a 75 percent construction and demolition debris diversion rate, the project would be inconsistent with the City's 2022 CAP. Therefore, the project could conflict with the City's CAP, and the impact would be potentially significant.

5.4.6 Mitigation Framework

The following mitigation measures would ensure consistency with the City's 2022 CAP:

MM GHG-1 **Prohibition of Natural Gas Use in City Facilities**. To facilitate the City's goal of achieving zero carbon emissions for municipal buildings and operations by 2035, the City shall require and verify the specification on the applicable plans that no natural gas appliances or natural gas plumbing are included in new City-owned and operated buildings prior to project design approval. Further, for existing City-owned buildings, the City shall replace existing fossil-fuel energy sources with electric or renewable energy sources as those buildings are scheduled for upgrades. For the existing terminal building or other facilities identified as historically significant, such upgrades would need to comply with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties.

MM GHG-2 **Construction and Demolition Waste Diversion**. Prior to issuing building or demolition permits, or approving construction contracts that include building or pavement demolition for any AMP implementation project, the City shall require completion of a Waste Management Form Part I, and all debris diversion and verification requirements specified in the City of San Diego Municipal Article 6, *Collection, Transportation and Disposal of Refuse and Solid Waste*; Division 6, *Construction and Demolition Debris Diversion Deposit Program.*

Designing new and renovated project buildings to be all-electric would replace natural gas energy use with electric energy use. The effect of MM GHG-1 is shown in Table 5.4-4, *Mitigated Annual Operation GHG Emissions (Non-Aircraft)*.

Table 5.4-4
MITIGATED ANNUAL OPERATION GHG EMISSIONS (NON-AIRCRAFT)

Source	Annual Emissions (MT CO_2e/year)
Mobile	285.9
Area	2.6
Energy	84.7
Water and Wastewater	9.1
Solid Waste	12.7
Refrigerants	0.4
Total Annual	**395.8**

Source: HELIX 2024c.
MT = metric tons; CO_2e = carbon dioxide equivalent

As shown in Table 5.4-4, the calculated mitigated GHG emissions would result in 395.8 MT CO_2e per year, a decrease of 3.1 MT CO_2e per year. The mitigated modeling replaced the natural gas energy use with the equivalent quantity of electrical energy, and the modeling does not account for the increased energy efficiency of electric appliances (e.g., hot water heaters and furnaces/heat pumps) compared to natural gas appliances. In addition, the calculated GHG emissions are for the year 2031. Beyond 2031, the indirect GHG emissions from electricity use would decrease and eventually approach zero GHG emissions as the state's electricity supply is decarbonized.

5.4.7 Significance of Impacts After Mitigation

With the implementation of MM GHG-1 and MM GHG-2, the project would be consistent with the City's 2022 CAP and would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Impact would be less than significant with mitigation incorporated.

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5.5 Historical, Archaeological, and Tribal Cultural Resources

This section of the PEIR addresses potential impacts related to historical, archaeological, and tribal cultural resources that could result from the implementation of the AMP. This analysis in this section is based on the *Brown Field Municipal Airport Master Plan Cultural Resources Technical Report* (HELIX 2024d; Appendix F) and the *Historical Resource Technical Report for Brown Field Municipal Airport* (IS Architecture 2024; Appendix G).

5.5.1 Existing Conditions

The existing environmental setting, which includes a detailed discussion of the cultural background of the San Diego region and Otay Mesa area is contained in Section 2.5.5 of this PEIR. Section 4.5 of this PEIR includes a summary of the regulatory framework relative to historical and Tribal cultural resources. Additional relevant information is provided below.

5.5.2 Methodology and Assumptions

A Cultural Resources Technical Report was prepared for the proposed AMP that describes the prehistory, ethnohistory, and history of the Otay Mesa area, describes the importance of the AMP area to the local Kumeyaay community, and identifies known existing archaeological (prehistoric and historic periods) and built-environment resources within the AMP area. The report summarizes the archival research and fieldwork conducted to identify any known eligible historical resources within the AMP area. Archival research included a literature review, specialized studies, and historic aerial and terrestrial photography. The Historic Resources Technical Report provides information regarding contributing resources to the Brown Field Historic District.

The Area of Potential Effect (APE) for the AMP encompasses 551 acres and consists of the approximately 880-acre SDM property, excluding the approximately 329 acres that are being leased to the private developers of the MAP and the new customs facility within airport property that was previously evaluated and determined to be exempt pursuant to CEQA. Typically, the APE for archaeological resources is defined as the area of potential direct effects to properties. As such, the direct effects APE for the AMP consists of 45 acres and encompasses the areas included in the ALP that are proposed for development as part of the AMP and that would be subject to impacts. The direct effects APE also includes a 25-foot buffer around these areas or areas where staging/access would occur outside of the MAP development area.

5.5.2.1 Prehistoric and Historic Archaeological Resources

A record search of the CHRIS, on file at the SCIC and provided to the City under contract, was conducted by the City; a supplemental search of in-house records and searches of site records and reports on file at the SCIC was conducted by HELIX staff on June 19, 2019 and January 31, 2024. The record searches covered a half-mile radius around the Airport property and included the identification of previously recorded cultural resources and locations and citations for previous cultural resources studies. A review of the state OHP historic properties directory and the local

register of historical resources (CHRID) was also conducted. Historic maps and aerial photographs were reviewed to assess the potential for historic archaeological resources to be present.

Also reviewed and compiled were baseline cultural resources information from several sources, including the *Metropolitan Airpark Project Final Environmental Impact Report* (ESA 2013), the Brown Field Master Plan Update Environmental Baseline Report (City 2010), associated cultural resource reports for these documents (Bray and Brewster 2012; Robbins-Wade and Van Wormer 1998, 1999), and various other available relevant cultural resource reports (Cooley et al. 1996; Price and Zepeda-Herman 2013; Robbins-Wade and Shultz 1996).

HELIX initiated a Native American Contact Program with local tribes and tribal representatives to identify Tribal cultural resources considered significant to the local Native American community. The NAHC was contacted for a search of their Sacred Lands Files on August 22, 2017. A response was received from the NAHC on August 28, 2017; a search of their Sacred Lands File was completed with negative results for the airport property. Tribal entities identified by the NAHC were contacted regarding the proposed AMP study on August 30, 2017; one response has been received. On September 7, 2017, the Viejas Band of Kumeyaay Indians responded that the AMP area may contain many sacred sites to the Kumeyaay people. They requested that these sacred sites be avoided with adequate buffer zones. Additionally, they requested that all applicable federal and state laws be followed and that they are immediately contacted on changes or inadvertent discoveries. On May 29, 2024, HELIX Cultural Resources Group Manager contacted Viejas to inquire about any new concerns or questions that The Band may have. Viejas responded on May 30, 2024, noting that The Band had no additional thoughts.

Per AB 52, a CEQA lead agency must consult with any California Native American tribe that requests consultation and that is traditionally and culturally affiliated with the geographic area of a proposed project to identify resources of cultural or spiritual value to the tribe, even if such resources are already eligible as historical resources as a result of cultural resources studies.

Tribal consultation notices in accordance with AB 52 were delivered by the City of San Diego to representatives from the Iipay Nation of Santa Ysabel, the Jamul Indian Village, and the San Pasqual Band of Mission Indians on July 12, 2024. The Cultural Resources Technical Report, as well as confidential data, was provided to all representatives to assist with their review in determining if the AMP area contains any Tribal Cultural Resources or areas of tribal importance that would require further evaluation or special consideration during the environmental review process. The City received one response requesting to consult from the San Pasqual Band of Mission Indians on July 12, 2024. Upon attempting to schedule an AB 52 consultation meeting, the tribe did not respond to two follow-up communications (July 16, 2024, and August 14, 2024). Therefore, the City considers the consultation concluded.

5.5.2.2 Historical Resources

The Historical Resource Technical Report (HRTR) prepared by IS Architecture focused on the evaluation of the contributing resources to the National Register eligible Auxiliary Naval Air Station Brown Field Historic District; the terminal building, including the original ATCT (Building 2002) and the nose end hangars (Buildings 2003, 2004, 10, and 2005). The HRTR did not include an evaluation of the other built resources within the AMP area that are significant but were not determined to be evaluators to the National Register eligible district. Several cultural resource reports and research

efforts that have been previously conducted for the Airport property are on file with the City and were reviewed in conjunction with this analysis (HELIX 2024d; Appendix F). In addition, the research included reviews of historic aerial photography to place the surrounding area's development in a visual context. A reconnaissance-level pedestrian survey was completed by IS Architecture personnel on February 27, 2019. Building 2002 was thoroughly examined and photographed. The nose-end hangars, which constitute the remainder of the District, were informally surveyed to evaluate whether or not their historic integrity remains since the date of the last evaluation.

5.5.3 Significance Determination Thresholds

Historical resources significance determination, pursuant to the City of San Diego's CEQA Significance Determination Thresholds (City 2022a), 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 CEQA Significance Determination Thresholds, impacts to historical, archaeological, and tribal cultural resources would be significant if the proposed project would result in any of the following:

1. An alteration, including the adverse physical or aesthetic effects and/or the destruction of a historic building (including an architecturally significant building), structure, object, or site;

2. A substantial adverse change in the significance of a prehistoric or historic archaeological resource, a religious or sacred use site, or the disturbance of any human remains, including those interred outside of formal cemeteries; or

3. A substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or 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 CRHR, or in a local register of historical resources as defined in PRC 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The City of San Diego's CEQA Significance Determination Thresholds define a significant historical resource as one that qualifies for the CRHR or is listed in a local historic register or deemed significant in a historical resource survey, as provided under Section 5024.1(g) of the PRC, although even a resource that is not listed in or determined eligible for listing in the CRHR, not included in a local register, or not deemed significant in a historical resource survey may nonetheless be historically significant for the purposes of CEQA. The City's Historical Resources Guidelines state the significance of a resource may be determined based on the potential for the resource to address

important research questions as documented in a site-specific technical report prepared as part of the environmental review process.

Research priorities for the prehistoric, ethnohistoric, and historic periods of San Diego's history are discussed in Appendix A to the City's Historical Resources Guidelines. As a baseline, the City of San Diego has established the following criteria to be used in the determination of significance under CEQA:

- An archaeological site must consist of at least three associated artifacts/ecofacts (within a 50-square meter area) or a single feature and must be at least 45 years of age. Archaeological sites containing only a surface component are generally considered not significant, unless demonstrated otherwise. Such site types may include isolated finds, bedrock milling stations, sparse lithic scatters, and shellfish processing stations. All other archaeological sites are considered potentially significant. The determination of significance is based on a number of factors specific to a particular site, including site size, type and integrity; presence or absence of a subsurface deposit, soil stratigraphy, features, diagnostics, and datable material; artifact and ecofact density; assemblage complexity; cultural affiliation; association with an important person or event; and ethnic importance.

- The determination of significance for historic buildings, structures, objects, and landscapes is based on age, location, context, association with an important person or event, uniqueness, and integrity.

- A site will be considered to possess ethnic significance if it is associated with a burial or cemetery; religious, social, or traditional activities of a discrete ethnic population; an important person or event as defined by a discrete ethnic population; or the mythology of a discrete ethnic population.

5.5.4 Impact Analysis

5.5.4.1 Issue 1: Historic Structures, Objects, or Sites

Would the proposed project result in an alteration, including the adverse physical or aesthetic effects and/or the destruction of a historic building (including an architecturally significant building), structure, object, or site?

The records search of the CHRIS, on file at the SCIC, indicated that eight previously recorded built-environment historic-period resources are within, or partially within, the APE of the proposed AMP. Of these, six resources have the potential of being directly affected by the improvements associated with the AMP, and two are within APE but would not be affected by the implementation of the AMP.

Table 5.5-1, *Built Environment Resources That May Be Affected by AMP Improvements*, lists the six previously recorded built-environment historic-period resources that may be directly affected. Five of the resources are buildings that are proposed for demolition as part of the AMP; all five resources (P-37-018248, P-37-018249, P-37-018251, P-37-018257, and P-37-018261) have been evaluated as not eligible for listing in the NRHP as part of a previous airport master plan update (Robbins-Wade and Van Wormer 1998), and assessed as non-significant under CEQA in the 1999 San Diego Air

Commerce Center at Brown Field Airport Master Plan EIR/Environmental Assessment (EA) (SCH No. 97111029) due to a lack of integrity and architectural or engineering distinction. According to the San Diego Air Commerce Center at Brown Field Airport Master Plan EIR/EA, the documentation of the buildings in the accompanying historic structures report (Robbins-Wade and Van Wormer 1999) is considered appropriate mitigation for the adverse but less than significant loss of the buildings.

The sixth resource, the Auxiliary Naval Air Station Brown Field Historic District (P-37-018246), is the most substantial built historic resource that would be affected by the implementation of the AMP. As shown in Figure 2-10, approximately 2.5 acres within the AMP are also within the Auxiliary Naval Air Station Brown Field Historic District (District). The District was evaluated for eligibility to the NRHP and was found to meet the significance standards set forth in Criteria A and C (refer to the Historic Resources Technical Report [IS Architecture 2024; Appendix G]), in that it played an important role as a repair and training facility in support of the Navy during WWII, and that the buildings within the District embody distinctive architectural designs and methods of construction unique to the naval air station during WWII. Additionally, the existing District exhibits all seven aspects of integrity.

Similarly, the District was found eligible for listing on the CRHR under Criteria 1 and 3 (which are analogous to the NRHP's criteria). The period of significance was determined to be 1940-1945. Given that the District has been determined to be eligible for both the NRHP and CRHR, it meets the SDRHR significance standard under Criterion E.

In general, historic districts typically consist of both contributing and non-contributing elements. Contributors are those buildings or other features that help constitute the historic character of the district. Largely, district contributors were constructed within the district's period of significance, related to historic contexts and themes defined for the district, and retained enough of their historical appearance to convey their historic appearance. In the case of the District, the contributing structures include the terminal building and attached ATCT (Building 2002) and the four nose end hangars on the western boundary of the District (Buildings 2003, 2004, 10, and 2005). These contributors were analyzed for their significance to the historic District in the report prepared by IS Architecture (2024).

Buildings 2003, 2004, 10, and 2005 – Nose End Hangars

The four nose-end hangars are located along the southern edge of the concrete flight deck tie-down area. These three-story, rectangular, wood-framed hangars measure approximately 81 feet by 72 feet and are T-shaped in cross-section. The central portion of the buildings contain offices and mechanic shops, while the cross of the "T" consists of a moderately-pitched, asphalt shingle-clad, gabled roof that shelters the open-air work areas. The building is supported by two parallel rows of wooden piers placed approximately twenty feet apart. Wooden cross braces tie the rows of piers together. Triangular, wood roof trusses extend approximately 40 feet to the east and west of each pier row. Although the nose-end hangars are contributors to the District, they would not be affected by the proposed improvements as part of the AMP.

Building 2002 –Terminal Building/ATCT

Constructed as a part of the original 1943 Naval Air Station construction, Building 2002 (the terminal facility) is located to the north and east of the main complex of buildings. The facility has always been highly visible and strongly associated with Brown Field. It is a single-story, roughly rectangular,

wood-framed building with a concrete slab foundation. The building features a flat roof with rolled asphalt roofing on both the lower building and the ATCT. The building and tower are sided with vertically oriented plywood panels scored into the approximation of vertical wood boards. See Figure 2-5 for a photograph of the terminal facility.

The building has a variety of window types that include vertical one-over-one lite sliding aluminum frame windows, fixed aluminum framed windows, and horizontal sliding aluminum framed windows. They are placed in various combinations along all four elevations. Later additions on the east and west ends of the building project beyond the original façades on the north and south sides. They exhibit large, fixed-pane, picture windows on the north side. Additional doors and windows are similar to those present in the remainder of the building.

A four-story control tower rises from the center of the roof. This was the original ATCT for Brown Field. The top-story control room flares slightly outward from the lower sections on all sides. It has a flat roof and a narrow exterior catwalk. Long knee braces support the catwalk on the south side of the tower. A series of five fixed picture windows on the north, east, and west sides provide viewing areas for the control room. Two of these windows on the east side are covered with plywood. Several different types of communication antennae are located on the roof and sides of the tower. Building 2002 is a keystone feature of the District and represents 20 percent of the District's contributing resources.

The rehabilitation of Building 2002 would occur in Phase II (Mid-Term; 6-10 years) of the 20-year AMP. Details regarding the rehabilitation scope, design, and construction are not available at the programmatic level, but for the purposes of this analysis, it is assumed that the rehabilitation of Building 2002 would address deficiencies identified in the AMP as part of the scope to rehabilitate the existing building for use and forecasted demand.

This rehabilitation scope will consist of remediation of environmental concerns, such as lead paint, hazardous materials in the ceiling and floors, pest infestations, and repairs of damage to the structure such as cracks in the foundation. While Building 2002 has been identified as being outdated, with administrative offices and conference rooms of inadequate size to handle the day-to-day operations of SDM personnel, the Facility Demand Forecast of the terminal space analysis found the "existing size of the facility is adequate over the 20-year planning period." Therefore, the rehabilitation scope is assumed to include interior rehabilitation but not alteration of the building's footprint.

Because details regarding the scope, design, and construction are not available at the programmatic level, it is not possible to conclude that the plans for the rehabilitation of Building 2002 comply with the Secretary of the Interior's Standards. As such, impacts are considered potentially significant.

Table 5.5-1
BUILT ENVIRONMENT RESOURCES THAT MAY BE AFFECTED BY AMP IMPROVEMENTS

Primary (P-37-)	Trinomial (CA-SDI-)	Description	Recorder(s), Date	Location	Significance Status
018246*	--	Auxiliary Naval Air Station Brown Field Historic District; composed of five separate buildings consisting of Naval airfield control tower and four nose end hangar repair docks.	Van Wormer, 1997; Brewster, 2010	APE	Determined eligible for listing in the NRHP under Criterion A and C; City of San Diego Historic Landmark #405-409.
018248*	--	Single story rectangular buildings (line shacks).	Van Wormer, 1997	APE	Evaluated as not eligible for listing in the NRHP; one has been demolished.
018249*	--	Single story rectangular store houses.	Van Wormer, 1997	APE	Evaluated as not eligible for listing in the NRHP; all have been demolished.
018251*	--	Wood framed, single story store house.	Van Wormer, 1997	APE	Evaluated as not eligible for listing in the NRHP
018257*	--	Naval airfield fire station.	Van Wormer, 1997	APE	Evaluated as not eligible for listing in the NRHP.
018261*	--	Storage locker/building of curved corrugated steel resembling a small Quonset hut.	Van Wormer, 1997	APE	Evaluated as not eligible for listing in the NRHP.

Source: HELIX 2024d.
* Resource situated within direct effects APE

Table 5.5-2, *Built Environment Resources That Would Not Be Affected by AMP Improvements*, lists other built-environment historic-era resources that are within the APE of the AMP, but are not within areas that would be directly disturbed by the implementation of the AMP.

The resource documented as P-37-018252 consists of naval airfield barracks that were evaluated as not eligible for listing in the NRHP and were demolished. The building recorded as P-37-018256 in 1997, was a naval airfield latrine. It was evaluated as not eligible for listing in the NRHP but has been designated and added to the City of San Diego's Historical Resources Register (HRB Site #410) under HRB Criterion B (Important Event) for its association with the World War II effort.

Table 5.5-2
BUILT ENVIRONMENT RESOURCES THAT WOULD NOT BE AFFECTED BY AMP IMPROVEMENTS

Primary (P-37-)	Trinomial (CA-SDI-)	Description	Recorder(s), Date	Location	Significance Status
018252	--	Naval airfield barracks. Narrow, rectangular, single-story buildings.	Van Wormer, 1997	APE & MAP	Evaluated as not eligible for listing in the NRHP; demolished.
018256	--	Naval airfield latrine. Rectangular single-story building.	Van Wormer, 1997	APE	Evaluated as not eligible for listing in the NRHP; City of San Diego Historic Landmark #410.

Source: HELIX 2024d.

5.5.4.2 Issue 2: Prehistoric and Historic Archaeological Resources, Sacred Sites, and Human Remains

Would the proposed project result in a substantial adverse change in the significance of a prehistoric or historic archaeological resource, a religious or sacred use site, or the disturbance of any human remains, including those interred outside of formal cemeteries?

Previously Recorded Archaeological Resources

The Cultural Resources Technical Report prepared by HELIX (HELIX 2024d) identified nine previously recorded archaeological resources within the APE area, as listed in Table 5.5-3, *Previously Recorded Archaeological Resources within the AMP Area*.

The prehistoric resources (P-37-010186 [CA-SDI-10186], P-37-010196 [CA-SDI-10196], P-37-010622 [CA-SDI-10622], P-37-015976 [CA-SDI-14559], P-37-015977, P-37-015978, P-37-015979, and P-37-034480) documented within the Airport include lithic and/or shell scatters, representing lithic reduction or resource processing areas. Artifacts documented within the sites consist of a light density of lithic debitage and tools. Many of the prehistoric resources within the Airport have been documented along the perimeter of the property, in the northern region, in or near the canyons that lead into the Otay River Valley that still contain native habitats. However, it is likely that the construction of airport runways and Naval airfield facilities destroyed much of the light-density lithic scatter that undoubtedly existed throughout much of the airport area. None of the previously recorded prehistoric resources are in the direct APE, and no impacts to these resources would occur.

Two of the historic-era archaeological resources recorded within the APE are late nineteenth-century farms (P-37-015981 and P-37-015982) that were documented based on information on the 1903 USGS Cuyamaca topographic map, a land ownership map of Otay Mesa (Roll et al. 1985), and an aerial photograph from 1928. There are no standing structures associated with the farmstead locations, and no surface features or artifacts have been observed at the resource locations. While it was determined by the FAA that these sites are not eligible for listing on the NRHP due to insufficient proof of eligibility, the sites contain the potential for subsurface features or artifacts to be present,

and it was recommended that evaluation of the resources be conducted in conjunction with specific project plans (Robbins Wade and Van Wormer 1999).

Other historic-era archaeological resources include the Alta School Site (CA-SDI-10628/H [P-37-010628]); a historic component of CA-SDI-10623 (P-37-010623), comprised of a trash scatter and a historic olive grove; and a historic trash deposit (P-37-034481). The Alta School site is listed locally as HRB Site #411 under HRB Criterion A for its archaeological significance exemplifying Otay Mesa's unique history. Alta School was constructed in approximately 1885 and was in use until the 1950s. CA-SDI-10623 (P-37-010623) is located adjacent to P-37-015981 and may represent constituents of the farmstead. Because implementation of the AMP would not affect these resources, impacts would be less than significant.

Resource (P-37-031954) consists of the remnants of one of the diagonal runways constructed in 1943 as part of the Naval Auxiliary Air Station. All that remains of the resource in this location are remnants of pavement. The resource is also situated within the MAP development area; as part of the EIR process for that project, the resource was recommended as not eligible for listing in the CRHR, NRHP, or local registers (Bray and Brewster 2012; ESA 2013).

Table 5.5-3
PREVIOUSLY RECORDED ARCHAEOLOGICAL RESOURCES WITHIN THE AMP APE

Primary (P-37-)	Trinomial (CA-SDI-)	Description	Recorder(s), Date	Location	Significance Status
Archaeological Sites					
010186	10186	Prehistoric lithic scatter with two loci. Most of the site has been destroyed by construction of SR 905.	Van Wormer and Winterrowd, 1983; Bray, 2011	APE	Determined not eligible for listing on the NRHP.
010196	10196	Prehistoric lithic and shell scatter, extending into CA-SDI-10186. One grinding element on a low-lying boulder also documented.	Winterrowd and Van Wormer, 1983; Bray, 2011	APE	Determined not eligible for listing on the NRHP.
010622	10622	Prehistoric lithic scatter.	Van Wormer, 1986; Bray, 2010	APE	Recommended as not eligible for listing in the CRHR, NRHP, or local registers.
010623	10623	Prehistoric lithic and shell scatter; historic trash scatter, and a historic olive grove.	Van Wormer, 1986; Smith, 1996; James, Briggs, and Cooley, 1996; Dietler and Luhnow, 1998	APE	Determined not eligible for listing on the NRHP.

Primary (P-37-)	Trinomial (CA-SDI-)	Description	Recorder(s), Date	Location	Significance Status
010628	10628/H	Foundations and historic debris associated with the historic Alta School site, as well as a prehistoric lithic scatter.	Hector, Wade, Van Wormer, Eighmey, 1986; Robbins-Wade, 1996; Kyle, Ni Ghabhlain, and Tift, 1996	APE & MAP	Determined not eligible for listing on the NRHP; a portion of the site is considered significant; City of San Diego Historic Landmark #411.
015976	14559	Prehistoric lithic scatter.	Shultz and Robbins-Wade, 1997; Bray, 2010	APE	Not evaluated.
015981	--	Historic farmstead site as shown on historic maps and aerials. No surface features or artifacts observed; however historic artifacts identified within neighboring site (CA-SDI-10623).	Robbins-Wade, 1997	APE	Determined not eligible for listing on the NRHP under Criteria A, B, and C; not evaluated under Criteria D.
015982	--	Historic farmstead site as shown on historic maps and aerials. No surface features or artifacts observed.	Robbins-Wade, 1997	APE	Determined not eligible for listing on the NRHP under Criteria A, B, and C; not evaluated under Criteria D.
031954*	--	Two segments of the diagonal runways and a segment of a taxiway constructed in 1943 as part of the WWII-era Naval Auxiliary Air Station.	Tietjen, 2010	APE & MAP	Recommended as not eligible for listing in the CRHR, NRHP, or local registers.
034481	--	Likely a secondary trash deposit containing historic materials that appear to date the mid-twentieth century.	Vader, 2014	APE & MAP	Recommended as not eligible for listing in the CRHR, NRHP, or local registers.
Archaeological Isolates					
015977	--	Prehistoric lithic flake.	Robbins-Wade and Shultz, 1997	APE	Not eligible for NRHP, CRHR, or local register.
015978	--	Two prehistoric lithic flakes.	Shultz and Robbins-Wade, 1997	APE	Not eligible for NRHP, CRHR, or local register.
015979	--	Prehistoric core.	Robbins-Wade and Shultz, 1997	APE	Not eligible for NRHP, CRHR, or local register.
034480	--	Prehistoric lithic scraper.	Vader, 2014	APE	Not eligible for NRHP, CRHR, or local register.

* Resource situated within direct effects APE

Archaeological Resources Within the Direct Effects APE

As discussed above, only one previously recorded archaeological resource (P-37-031954) has been documented within the direct effects APE, which encompasses the areas included in the ALP that are proposed for development as part of the AMP and that would be subject to impacts. P-37-031954 consists of the remnants of one of the diagonal runways constructed in 1943 as part of the Naval Auxiliary Air Station. The resource is also situated within the MAP development area, evaluated as part of the EIR process for that project, and was recommended as not eligible for listing in the CRHR, NRHP, or local registers (Bray and Brewster 2012; ESA 2013).

During the pedestrian field survey of the direct effects APE, three previously unrecorded prehistoric archaeological resources were observed: an isolate consisting of two lithic tools (P-37-038734); an isolate consisting of a scraper tool (P-37-038735); and a lithic artifact scatter (P-37-038736). These newly recorded resources are described below, and summarized in Table 5.5-4, *Previously Unrecorded Cultural Resources Within the Direct Effects APE*. The resources were recorded on appropriate State of California Department of Parks and Recreation (DPR) 523 forms and evaluated for significance. The completed DPR site forms were submitted to the SCIC.

Table 5.5-4
ARCHAEOLOGICAL RESOURCES WITHIN THE DIRECT EFFECTS APE

Resource Number	Age	Description	Location and Significance Status
P-37-031954	Historic	Two diagonal runways and a segment of a taxiway constructed in 1943 as part of the Naval Auxiliary Air Station	Previously recorded.
P-37-038734	Prehistoric	Scraper tool and core	Newly identified within the direct effects APE; recommended as not eligible for listing in the CRHR, NRHP, or local registers.
P-37-038735	Prehistoric	Scraper tool	Newly identified within the direct effects APE; recommended as not eligible for listing in the CRHR, NRHP, or local registers.
P-37-038736	Prehistoric	Lithic artifact scatter	Newly identified within the direct effects APE; recommended as not eligible for listing in the CRHR, NRHP, or local registers.

P-37-038734

P-37-038734 is a prehistoric isolate consisting of two lithic artifacts: a core and a scraper tool, both of metavolcanic material. One of the artifacts was found in a dirt road, the other in the field approximately 15 meters to the southwest. Marine shell fragments were observed in the confluence of two dirt roads approximately 50 meters to the west of the artifacts; however, the shell is in a disturbed context and may not be prehistoric in origin. As with site P-37-038736, as described in further detail below, a review of historic aerial photographs shows that the resource area has been graded and heavily disturbed since at least 1953, likely from the development of Brown Field by the Navy in the 1940s and early 1950s.

P-37-038735

P-37-038735 is a prehistoric isolate consisting of a green, metavolcanic scraper tool observed in a highly disturbed area next to a taxiway sign in the central portion of the airport property.

P-37-038736

P-37-038736 is a prehistoric site consisting of a scatter of prehistoric lithic artifacts in a densely vegetated field in the southwestern portion of the airport property. The artifacts observed include three flakes of metavolcanic material, one of which may have been used as a tool. A review of historic aerial photographs shows that the site area, located in the southwest portion of the SDM property, has been heavily disturbed since at least 1953, likely from the Naval Auxiliary Air Station development in the 1940s and early 1950s. The 1953 aerial photograph shows the location of the artifacts as being graded and cleared of vegetation, with several dirt roadways surrounding the area. Similar conditions illustrating continuous episodes of disturbance in the site vicinity can be observed on subsequent aerial photographs from the 1960s through the 1990s. The roads surrounding the resource location can also be observed on the 1971 Otay (1:24,000) USGS topographic map and the City of San Diego 800' Scale Map.

As discussed in further detail in the Cultural Resources Technical Report (HELIX 2024d), P-37-038736 does not have the potential to yield information important to our understanding of prehistory and is recommended ineligible for listing in the CRHR or NRHP. Likewise, the site also does not meet the City's criteria to be considered a significant resource; significant sites that have been identified on Otay Mesa are typically habitation sites with intact subsurface deposits. Following the programmatic treatment guidelines presented in the Management Plan for Otay Mesa Prehistoric Resources, no further work is recommended.

The other two resources, P-37-038734 and P-37-038735, are both archaeological isolates. As a general rule, isolates are not eligible for inclusion in the CRHR or NRHP, and are considered non-significant resources, per the City's Historical Resources Guidelines. As with site P-37-038736, subsurface deposits are unlikely to be present based on the results of the extensive amount of testing that has occurred in the vicinity and due to the past disturbances at the isolate locations.

As such, no significant archaeological resources would be affected by the AMP, and no additional investigation or evaluation efforts are recommended for project-specific development activities associated with the AMP. However, due to this overall cultural sensitivity of Otay Mesa, the potential exists for buried resources to be encountered within the APE. Future development and related construction activities could result in the alteration or destruction of prehistoric archaeological resources and could impact religious or sacred sites, or disturb human remains. Therefore, impacts associated with the alteration or destruction of prehistoric archaeological resources are considered potentially significant.

The disposition of human remains and burial-related artifacts that cannot be avoided or are inadvertently discovered is governed by the state (i.e., Assembly Bill 2641 [Coto] and California Native American Graves Protection and Repatriation Act of 2001 [Health and Safety Code 8010–8011]) and federal (i.e., Native American Graves Protection and Repatriation Act [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 would be turned over to the appropriate Native American group for repatriation. However, since human remains may be discovered and affected during ground-disturbing activities, impacts are considered potentially significant.

5.5.4.3 Issue 3: Tribal Cultural Resources

Would implementation of the proposed project result in 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

HELIX initiated a Native American Contact Program with local tribes and tribal representatives to identify tribal cultural resources considered significant to the local Native American community. The NAHC was contacted for a search of their Sacred Lands Files on August 22, 2017. A response was received from the NAHC on August 28, 2017; a search of their Sacred Lands File was completed with negative results for the airport property. Tribal entities identified by the NAHC were contacted regarding the proposed AMP study on August 30, 2017; one response has been received. On September 7, 2017, the Viejas Band of Kumeyaay Indians responded that the AMP area may contain many sacred sites to the Kumeyaay people. They requested that these sacred sites be avoided with adequate buffer zones. Additionally, they requested that all applicable federal and state laws be followed and that they are immediately contacted on changes or inadvertent discoveries. On May 29, 2024, HELIX Cultural Resources Group Manager contacted Viejas to inquire about any new concerns or questions that The Band may have. Viejas responded on May 30, 2024, noting that The Band had no additional thoughts.

Pursuant to AB 52, a CEQA lead agency must consult with any California Native American tribe that requests consultation and that is traditionally and culturally affiliated with the geographic area of a proposed project to identify resources of cultural or spiritual value to the tribe, even if such resources are already eligible as historical resources as a result of cultural resources studies. Therefore, since the implementation of the project could result in adverse impacts to tribal cultural resources, impacts are considered potentially significant.

Tribal consultation notices in accordance with AB 52 were delivered by the City of San Diego to representatives from the Iipay Nation of Santa Ysabel, the Jamul Indian Village, and the San Pasqual Band of Mission Indians on July 12, 2024. The Cultural Resources Technical Report, as well as confidential data, was provided to all representatives to assist with their review in determining if the

AMP area contains any Tribal Cultural Resources or areas of tribal importance that would require further evaluation or special consideration during the environmental review process. The City received one response requesting to consult from the San Pasqual Band of Mission Indians on July 12, 2024. Upon attempting to schedule an AB-52 consultation meeting, the tribe did not respond to two follow-up communications (July 16, 2024, and August 14, 2024).

5.5.5 Significance of Impacts

5.5.5.1 Historic Structures, Objects, or Sites

As discussed in Section 3.4.2.1 of this PEIR, the size of the existing terminal facility is adequate to serve the projected needs of the Airport. However, due to the age of the facility, there are a number of configurations and other environmental issues for the existing building. The terminal building, including the original ATCT, has been determined to be eligible for listing in the SDRHR, the CRHR, and the NRHP, and the currently proposed AMP includes rehabilitation of the existing building. Because details regarding the scope, design, and construction are not available at the programmatic level, it is not possible to conclude that the plans for the rehabilitation of Building 2002 comply with the Secretary of the Interior's Standards. As such, impacts are considered potentially significant.

5.5.5.2 Prehistoric and Historic Archaeological Resources, Sacred Sites, and Human Remains

Due to the overall cultural sensitivity of Otay Mesa, the potential remains for buried resources to be encountered within the APE. Implementation of the project could adversely impact prehistoric archaeological resources, including religious or sacred sites and human remains. These impacts would be potentially significant.

5.5.5.3 Tribal Cultural Resources

Implementation of the project could adversely impact tribal cultural resources. These impacts would be potentially significant.

5.5.6 Mitigation Framework

5.5.6.1 Historic Structures, Objects, or Sites

MM HIST-1 **Secretary of the Interior's Standards for the Treatment of Historic Properties.** Development of the Building 2002 rehabilitation project for use and forecasted demand shall be done in compliance with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties. These are:

Standards for Rehabilitation

1. *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

2. *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.*
3. *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.*
4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*
5. *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*
6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*
7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*
8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*
9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.*
10. *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

The City shall engage a qualified historic architect and/or architectural historian (pursuant to the Secretary of the Interior's Professional Qualifications in 36 CFR Part 61) to consult on the project's development and analyze the final project scope for Compliance with Secretary of the Interior's Standards for the Treatment of Historic Properties.

MM HIST-2 **Evaluation of Historic Resources.** In accordance with the City of San Diego's Historical Resources Regulations (SDMC Chapter 14, Article 3, Division 2), prior to the issuance of any permit for a development project implemented under the AMP that would directly or indirectly affect any unevaluated buildings or structures, or those that will be 45 years or older at the time of specific improvements implemented under the AMP, 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.

Preferred mitigation for historic buildings or structures shall be to avoid the resource through project redesign. If the resource cannot be entirely avoided, the required permit(s) will be processed and all prudent and feasible measures to minimize harm to the resource shall be taken. Depending upon project impacts, measures may include, but are not limited to:

a. Conducting a Historic American Building Survey and Historic American Engineering Record;
b. Preparing a historic resource management plan;
c. 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);
d. Repairing damage according to the Secretary of the Interior's Standards for Rehabilitation;
e. 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;
f. Shielding historic properties from noise generators through the use of sound walls, double glazing, and air conditioning; and
g. Removing industrial pollution at the source of production.

Specific types of historical resource reports, outlined in Section III of the Historical Resources Guidelines, are required to document the methods to be used to determine the presence or absence of historical resources, to identify potential impacts from a proposed project, and to evaluate the significance of any historical resources identified. 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. If required, mitigation programs can also be included in the report.

5.5.6.2 Prehistoric and Historic Archaeological Resources, Sacred Sites, and Human Remains

MM HIST-3 **Archaeological Monitoring Program.** The following monitoring program shall be implemented to protect unknown prehistoric and historic archaeological resources, sacred sites, and human remains that may be identified during any construction-related activities:

I. Prior to Permit Issuance or Bid Opening/Bid Award

A. Entitlements Plan Check

1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Environmental Designee shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification have been submitted to Environmental Designee

1. Prior to Bid Award, the applicant shall submit a letter of verification to MMC identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resource Guidelines. If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.

2. MMC will provide a letter to the applicant confirming the qualifications of the PI and that all persons involved in the archaeological monitoring of the project meet the qualifications established in the Historical Resource Guidelines.

3. Prior to the start of work, the applicant must obtain written approval from MMC for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to MMC that a site-specific records search (1/4-mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.

2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.

3. The PI may submit a detailed letter to MMC requesting a reduction to the 1/4-mile radius.

B. PI Shall Attend Preconstruction Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a preconstruction meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation-related preconstruction meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the CM and/or Grading Contractor.

    a. If the PI is unable to attend the preconstruction meeting, the Applicant shall schedule a focused preconstruction meeting with MMC, the PI, RE, CM, or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects)

    The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the archaeological monitoring program.

3. Identify Areas to be Monitored

    a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.

    b. The AME shall be based on the results of a site-specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances, and/or any known soil conditions (native or formation).

    c. MMC shall notify the PI that the AME has been approved.

4. When Monitoring Will Occur

    a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.

b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information, such as a review of final construction documents, which indicate site conditions such as depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

5. Approval of AME and Construction Schedule

After approval of the AME by MMC, the PI shall submit to MMC written authorization of the AME and Construction Schedule from the CM.

III. During Construction

A. Monitor(s) Shall be Present During Grading/Excavation/Trenching

1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities that could result in impacts to archaeological resources as identified on the AME. **The CM is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances, OSHA safety requirements may necessitate modification of the AME.**

2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and MMC. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop, and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.

3. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.

4. The archaeological and Native American consultant/monitor shall document field activity via the CSVR. The CSVRs shall be faxed by the CM to the RE on the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil-disturbing activities, including but not limited to digging, trenching, excavating, or grading activities in the area of

discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.

2. The Monitor shall immediately notify the PI (unless the Monitor is the PI) of the discovery.

3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by email with photos of the resource in context, if possible.

4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource, specifically if Native American resources are encountered.

C. Determination of Significance

1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow the protocol in Section IV below.

   a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.

   b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) which has been reviewed by the Native American consultant/monitor, and obtain written approval from MMC, CM, and RE. ADRP and any mitigation must be approved by MMC, RE, and/or CM before ground-disturbing activities in the area of discovery will be allowed to resume. **Note: If a unique archaeological site is also a historical resource as defined in CEQA, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.**

      (1). Note: For pipeline trenching and other linear projects in the public Right-of-Way, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."

   c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.

      (1). Note: For Pipeline Trenching and other linear projects in the public Right-of-Way, if the deposit is limited in size, both in length and depth; the information value is limited and is not associated with any other resource; and there are no unique features/artifacts associated with the deposit, the discovery should be considered not significant.

(2). Note, for Pipeline Trenching and other linear projects in the public Right-of-Way, if significance cannot be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching and other Linear Projects in the Public Right-of-Way

The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities or for other linear project types within the Public Right-of-Way including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance:

1. Procedures for documentation, curation, and reporting

   a. One hundred percent of the artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered, photographed after cleaning, and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact.

   b. The PI shall prepare a Draft Monitoring Report and submit it to MMC via the RE as indicated in Section VI-A.

   c. The PI shall be responsible for recording (on the appropriate State of California DPR forms-DPR 523 A/B) the resource(s) encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines. The DPR forms shall be submitted to the South Coastal Information Center for either a Primary Record or SDI Number and included in the Final Monitoring Report.

   d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area, and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California PRC (Section 5097.98) and State Health and Safety Code (Section 7050.5) shall be undertaken:

A. Notification

1. Archaeological Monitor shall notify the RE or BI, as appropriate, the MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the City Planning Department or Development Services Department to assist with the discovery notification process.

2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate Discovery Site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenance of the remains.

2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenance.

3. If a field examination is not warranted, the Medical Examiner will determine, with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains ARE Determined to be Native American

1. The Medical Examiner will notify the NAHC within 24 hours. By law, ONLY the Medical Examiner can make this call.

2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.

3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.

4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.

5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:

a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being granted access to the site, OR;

b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94(k) by the NAHC fails to provide measures acceptable to the landowner, the landowner shall reinter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance, THEN

c. To protect these sites, the landowner shall do one or more of the following:

(1) Record the site with the NAHC;

(2) Record an open space or conservation easement; or

(3) Record a document with the County. The document shall be titled "Notice of Reinterment of Native American Remains" and shall include a legal description of the property, the name of the property owner, and the owner's acknowledged signature, in addition to any other information required by PRC 5097.98. The document shall be indexed as a notice under the name of the owner.

d. Upon the discovery of multiple Native American human remains during a ground-disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from a review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and items associated and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are **NOT** Native American

1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.

2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).

3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for the internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

V. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the preconstruction meeting.

2. The following procedures shall be followed.

a. No Discoveries: In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit it to MMC via fax by 8:00 AM of the next business day.

b. Discoveries: All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.

c. Potentially Significant Discoveries: If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction and IV-Discovery of Human Remains shall be followed.

d. The PI shall immediately contact the MMC, or by 8:00 AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction

1. The CM shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.

2. The RE, or BI, as appropriate, shall notify the MMC immediately.

C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

A. Preparation and Submittal of Draft Monitoring Report

1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring. **It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe resulting from delays with analysis, special study results or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.**

a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.

b. Recording Sites with State of California DPR: The PI shall be responsible for recording (on the appropriate State of California DPR forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.

2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.

3. The PI shall submit a revised Draft Monitoring Report to MMC via the RE for approval.

4. MMC shall provide written verification to the PI of the approved report.

5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts

1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued.

2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.

C. Curation of artifacts: Accession Agreement and Acceptance Verification

1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing, and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.

2. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection C.

3. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.

4. The RE or BI, as appropriate shall obtain a signature on the Accession Agreement and shall return to PI with a copy submitted to MMC.

5. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)

1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC that the draft report has been approved.

2. The RE shall, in no case, issue the Notice of Completion and/or release of the Performance Bond for grading until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

5.5.6.3 Tribal Cultural Resources

Implementation of mitigation measure HIST-3 would address potential impacts to tribal cultural resources.

5.5.7 Significance of Impacts after Mitigation

5.5.7.1 Historic Buildings, Structures, Objects, or Sites

Implementation of mitigation measures MM HIST-1 and MM HIST-2 would ensure that improvements associated with the proposed project would conform to the Secretary of the Interior's Standards and would therefore reduce potential impacts to below a level of significance, pursuant to CEQA Guideline §15064.5[b][1], which states:

> *Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant.*

5.5.7.2 Prehistoric and Historic Archaeological Resources, Sacred Sites, and Human Remains

Development implemented in accordance with the project would potentially result in ground-disturbing activities located near culturally sensitive areas and, therefore, would require the implementation of measure MM HIST-3 that addresses measures to minimize impacts to prehistoric and historic archaeological resources, sacred sites, and human remains. This mitigation, in addition to compliance with CEQA and PRC Section 21080.3.1 requiring tribal consultation early in the development review process, and the City's Historical Resources Regulations (SDMC Section 143.0212), which requires review of permit applications for any parcel identified as sensitive on the Historical Resources

Sensitivity Maps, would reduce potential impacts related to prehistoric or historical archaeological resources, sacred sites, and human remains to below a level of significance.

5.5.7.3 Tribal Cultural Resources

Development implemented in accordance with the project would potentially result in impacts to tribal cultural resources and, therefore, would require implementation of measure MM HIST-3 implementation of measure MM HIST-3 that addresses measures to minimize impacts to tribal cultural resources. This mitigation, in addition to compliance with CEQA and PRC Section 21080.3.1 requiring tribal consultation early in the development review process, and the City's Historical Resources Regulations (SDMC Section 143.0212), which requires review of permit applications for any parcel identified as sensitive on the Historical Resources Sensitivity Maps, would reduce potential impacts related to tribal cultural resources to below a level of significance.

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5.6 Human Health, Public Safety, and Hazardous Materials

The section of the PEIR addresses potential impacts related to health and safety that could result from the implementation of the AMP. Portions of this section are based on information from the *Hazardous Materials Technical Study* prepared by The Bodhi Group, Inc. (The Bodhi Group 2019), which is included as Appendix I of this PEIR.

5.6.1 Existing Conditions

The existing environmental setting, which includes a description of existing conditions relative to hazardous materials sites, wildfire hazards, emergency preparedness, and aircraft hazards with and adjacent to the AMP area, is contained in Section 2.4.6 of this PEIR. Section 4.6 of this PEIR includes a summary of the regulatory framework associated with health and safety.

5.6.2 Methodology and Assumptions

The analysis of wildfire risk is based on a review of the City's VHFHSZ Maps. State law requires local jurisdictions to identify very high fire hazard severity zones within their areas of responsibility. Inclusion within these zones is based on vegetation density, slope severity, and other relevant factors that contribute to fire severity. These maps, which were last updated in 2009, are maintained by the City's Fire-Rescue Department.

The *Hazardous Materials Technical Study* prepared for the proposed AMP (see Appendix I) includes a search of pertinent federal, state, and local regulatory agency database records; a search of regulatory records; and historical land use information from readily available public records. Although the search identified known sites and locations where hazardous materials have been stored, dispensed, conveyed, or spilled, only sites with documented hazardous material releases and oversight by a regulatory agency (local or state agency) are considered to have conditions that could present a risk to human health or the environment.

5.6.3 Significance Determination Thresholds

Based on the City's Significance Determination Thresholds (City 2022a), as modified to guide a programmatic analysis of the proposed project, impacts related to human health, public safety, and hazardous materials would be significant if the implementation of the proposed project would:

1. Expose people or structures to a significant loss, injury, or death involving wildland fires, including when wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands;

2. Result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter mile of an existing or proposed school;

3. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan;

4. Be located on a site that 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;

5. Be located on or near known contamination sources or meet one or more of the following criteria:

    - Be located within 1,000 feet of a known contamination site;
    - Be located within 2,000 feet of a known "border zone property" (also known as a "Superfund" site) or a hazardous waste property subject to corrective action pursuant to the H&SC;
    - Be located on a site with a closed Department of Environmental Health case file;

6. Create a significant hazard to the public or environment through the reasonably foreseeable upset or accidental conditions involving the release of hazardous materials into the environment.

7. Result in a safety hazard for people residing or working in a designated airport influence area?

8. Result in a safety hazard for people residing or working within two miles of a private airstrip or a private airport or heliport facility that is not covered by an adopted Airport Land Use Compatibility Plan?

Threshold 8 is not applicable to the proposed project as the Airport is covered by an adopted Airport Land Use Compatibility Plan. Potential safety hazards associated with the project are discussed under Threshold 7.

5.6.4 Impact Analysis

5.6.4.1 Issue 1: Wildland Fire Risk

Would implementation of the proposed project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including when wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The potential for wildland fires represents a hazard, particularly on undeveloped properties or where development exists adjacent to open space or within proximity to wildland fuels. State law requires that all local jurisdictions identify VHFHSZs within their areas of responsibility (California Government Code Sections 51175–51189). These maps, which are prepared by the City in collaboration with the California Department of Forestry and Fire Protection, determine fire hazards zones based on vegetation density, slope severity, and other relevant factors that contribute to fire severity.

As discussed in Chapter 2.0, the AMP area is located within a Very High Fire Hazard Severity Zone (City 2009). Future development or activity under the proposed AMP could potentially be at risk from

exposure to wildland fires. Such development, however, would be subject to applicable state and City regulatory requirements related to fire hazards and prevention, as outlined in Section 4.6. Specifically, these encompass standards associated with vegetative (brush) management, such as selective removal/thinning and fire-resistant plantings to create appropriate buffer zones around development, as well as incorporating applicable fire-related design elements, including fire-resistant building materials, fire/ember/smoke barriers, automatic alarm and sprinkler systems, and provision of adequate fire flow and emergency access. These requirements would be implemented as part of individual improvements associated with the AMP. Overall, the improvements proposed under the AMP would not substantially increase the risk of wildland fires at the Airport over existing conditions based on the similarity of the proposed uses to existing uses. In addition, the AMP area would continue to be serviced by SDFD Station 43, which is located within the Airport boundary. Therefore, impacts associated with wildfire hazards would be less than significant.

5.6.3.2 Issue 2: Hazardous Emissions and Materials in Proximity to Schools

Would implementation of the proposed project result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter mile of an existing or proposed school?

There are no existing schools within one-quarter mile of the AMP area. The nearest school is San Ysidro High School, which is approximately two miles to the west of the Airport. Thus, while implementation of the improvement projects in the AMP may involve the use of hazardous materials, these activities would not occur within one-quarter mile of a school facility. Additionally, future discretionary projects located within the AIA for SDM would be submitted to the ALUC for a consistency determination.

As described in the Airport Land Use Planning Handbook prepared by the Caltrans Division of Aeronautics, public and private schools are incompatible land uses within the AIA, and California Education Code Section 17215 requires that before acquiring title to or leasing property for a new school site within two miles of an airport runway, a school district must notify the Department of Education. The Department of Education then notifies Caltrans. If Caltrans does not favor the acquisition of the site for a school, no state or local funds can be used for site acquisition or building construction on that site. Education Code Section 81033 establishes similar requirements for community college sites. Finally, PUC Section 21655 also prescribes similar requirements for any proposed property acquisition or construction by a state agency within two miles of an airport runway. Thus, given that there are no existing schools within a quarter mile and any future school sites would be required to undergo an investigation if proposed within two miles of the Airport, implementation of the project would have a less than significant impact in relation to this issue.

5.6.3.3 Issue 3: Emergency Response Plans

Would implementation of the proposed project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

As discussed in Section 2.5.6.4 of this PEIR, the City is a participating entity in the MHMP (County 2023), which is generally intended to provide compliance with regulatory requirements associated with emergency response efforts. As part of this effort, the San Diego Office of Homeland Security

oversees emergency preparedness and response services for disaster-related measures, including administration of the Emergency Operations Center (EOC) and alternate EOC. For emergency evacuation, the EOP identifies I-805, SR-125, and SR-905 as emergency evacuation routes in the vicinity of the AMP.

As shown in Figure 3-3, Staging Areas and Haul Routes, construction of the individual improvement tasks within the AMP would generally not involve haul truck routes outside of the boundaries of the Airport and no temporary road closures or diversions that could affect vehicular or aircraft circulation are anticipated. Implementation of the AMP would occur entirely within the boundaries of the existing Airport, and the AMP would not introduce any land uses not already considered in the current emergency response plans. Additionally, the construction and operation of the facility improvements within the AMP would not place any temporary or permanent physical barriers on any existing public streets. Thus, it is not anticipated that the construction or operation of the improvements proposed within the AMP would interfere with or diminish the capacity of programs and facilities to continue to provide effective emergency response or allow for sufficient emergency evacuation within the Airport and surrounding areas.

Lastly, in accordance with FAA AC 150/5200-31, airports maintain an Airport Emergency Plan (AEP). The AEP addresses essential emergency-related and deliberate actions planned to ensure the safety of, and emergency services for, the airport populace and the community in which the airport is located. The AEP document should be functionally oriented, comprehensive in the assignment of responsibilities, and coordinated at all levels. Improvements occurring as part of the AMP, such as demolition and reconfiguration of taxiways, would not substantially impair the implementation of the AEP or other emergency response in the AMP area because the improvements would be phased (i.e., not all occurring at once) and each would occur over a relatively small area. As such, emergency access routes would be maintained within the AMP area. Required adherence to the AEP further assures that implementation of the project would not impair or interfere with an adopted emergency response plan or evacuation plan. Impacts would be less than significant.

5.6.3.4 Issue 4: Hazardous Materials Sites

Would the improvement projects within the proposed project 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?

As discussed in Section 2.5.6 of this PEIR, the Bodhi Group conducted a review of federal, state, regional, and local environmental regulatory databases, which revealed 17 records of potential environmental concern, of which 14 record locations are located within the boundaries of the Airport, and 3 locations are within a one-eighth of a mile of the Airport.

The Bodhi Group conducted site reconnaissance to identify areas within the AMP area of potential environmental concern. Ms. Brianne Cortright conducted the reconnaissance on March 22, 2019, and was escorted by Mr. Wayne Reiter, the Airports Program Manager at the time. The site reconnaissance consisted of driving along accessible portions of the Airport to view areas of potential hazardous material storage, disposal, or applications. Please see Appendix I for additional details.

Areas observed during the site reconnaissance of potential environmental concern include the following:

- Former Naval Fuel Farm and Former Filling Station (West portion of Airport). Mr. Reiter stated the area was formerly occupied by a fuel farm and an automobile filling station. Numerous USTs were previously removed and are associated with multiple unauthorized released cases. The area is currently a grass field, and indications of the former releases were not observed.

- First Flight Corporation (6810 Curran Street). First Flight is a Fixed Base Operator located in the southwest portion of the Airport, north of Curran Street (see #5 on Figure 2-11). The facility operates a fueling station that includes a fuel dispenser, a 12,000-gallon Jet-A fuel AST, a 10,000-gallon aviation gas AST, and fuel trucks containing Jet-A fuel, aviation gas, and 100-lowlead. The dispenser and ASTs appeared in good condition, were on concrete secondary containment, and staining or evidence of releases were not observed.

- Altitude Helicopters (7060 Curran Street). Altitude Helicopters is a flight school located in the south-central portion of the Airport, north of Curran Street. The facility operates one 20,000-gallon jet fuel AST and multiple fuel trucks. The ASTs and fuel trucks were observed to be in good condition, and evidence of releases was not seen.

- Air Center San Diego (1424 Continental Street). Air Center San Diego is another Fixed Base Operator located in the south/central portion of the Airport, at the terminal building. The facility operates a fueling station that includes fuel dispensers, a 10,000-gallon aviation gas AST, a 10,000-gallon and a 20,000-gallon jet fuel AST, and fuel trucks containing Jet-A fuel, Aviation Gas. The dispensers and ASTs were on concrete secondary containment, and staining or evidence of releases were not observed.

- Former Fire Truck storage. Mr. Reiter also stated a fire truck was previously stored in a shed located northeast of the terminal building (see #15a/b on Figure 2-11). Mr. Reiter was unsure of the firefighting fluid stored in the truck. Based on previous research by the Bodhi Group regarding aqueous film forming foam (AFFF), it was likely water in the tank, and it is possible that AFFF was stored separately on the truck and mixed with the water when needed for a petroleum fire, as class B fire equipment is more commonly used at airports. Staining or evidence of a release were not observed near the shed.

- San Diego Fire Department, Fire Station 43 (1590 La Media Road). The fire station is located on the southeast corner of the Airport at the intersection of La Media and Otay Mesa Roads. According to Mr. Reiter, the firefighters may have performed training in an unpaved area west of the station (see #13 on Figure 2-11) and may have practiced with water/AFFF foam.

- Wrecking Yard/Auto Auction (7310 Pogo Road). The automobile auction is located in the north portion of the AMP area, beyond Pogo Road (see #16 on Figure 2-11). The property was only viewed from the perimeter due to access issues; however, vehicle parts and wrecked automobiles were visible in piles and on shelves throughout the site. It is likely that surficial staining is present in the locations of vehicle storage and maintenance.

Based on a review of the records, site reconnaissance, and interviews with onsite operators, the Bodhi Group determined that development, redevelopment, and future operations included in the AMP could potentially expose people or sensitive receptors to hazardous materials and/or wastes. The sources of contamination potentially include the following:

- Unauthorized releases of petroleum from storage systems such as USTs and ASTs can result in impacts from petroleum hydrocarbons, which can contain chemicals of concern in the volatile and non-volatile fractions as discussed previously;
- Unauthorized releases of petroleum products, waste oil, and solvents from vehicle/equipment maintenance and storage that can result in impacts from petroleum hydrocarbons, CVOCs, and metals;
- Unauthorized releases of solvents, metals, and PCBs from industrial processes;
- Lead in shallow soil from ADL and LBP;
- Asbestos from building material;
- Unauthorized releases of PCBs from electrical equipment, including transformers, waste oil, and building materials that may have contained PCBs;
- Pesticides in shallow soil from former agricultural use within the AMP area; and
- Releases of ECCS into soil and groundwater from firefighting training or storage (AFFF can result in PFAS impacts).

The five potentially complete pathways of exposure of contaminants to receptors are listed below:

- Long-term exposure and potential risks to human health from vapor intrusion of volatile chemicals into occupied structures.
- Long-term exposure to hazardous chemicals in groundwater that may be a source of drinking water and other beneficial municipal use.
- Long-term direct exposure to hazardous chemicals in soil through dermal contact.
- Short-term direct exposure of construction workers to hazardous chemicals in the soil through dermal contact.
- Short-term inhalation exposure of construction workers and the public to potential chemicals in dust generated by construction (lead, asbestos, polynuclear aromatic hydrocarbons, PCBs, and organochlorine pesticides).

Of particular concern are the properties that are situated in areas of the AMP that have been identified for future development, primarily the additional hangars and parking spaces in the far western portion of the AMP and the new maintenance building. Other activities associated with the AMP, such as the demolition of structures that are located adjacent to Otay Mesa Road within the

MAP lease area would occur in portions of the former UST farm. However, demolition activities are not anticipated to disturb subsurface soils.

All future development and redevelopment activities under the AMP would be required to adhere to applicable regulatory/industry and code standards related to health hazards from hazardous materials. Specifically, this would involve compliance with pertinent federal, state, and local standards related to hazardous materials, as outlined in Section 4.6, including discretionary approval from the County DEH/HMD for all applicable projects proposed within the AMP area. This would entail receipt of clearance from the County DEH/HMD as the local CUPA, including remediation efforts for applicable locations.

However, although compliance with existing regulations would minimize impacts associated with hazardous materials, impacts remain potentially significant due to the potential exposure to construction workers and the public during the implementation of the AMP improvements.

5.6.3.5 Issue 5: Areas of Potential Environmental Concern

Is the project area located within 1,000 feet of a known contamination, within 2,000 feet of a known Superfund site, or have a closed Department of Environmental Health file?

The AMP area is not located within 2,000 feet of a Superfund site (The Bodhi Group 2019). However, as discussed above, some airport operations are listed on government environmental regulatory databases, where there have been violations and known contamination in the past. Moreover, there are land uses on the Airport that are subject to land use change notification requirements as stipulated by the DEH. None of the properties that are subject to the DEH land use restrictions are in areas that have been identified for improvements in the AMP. However, due to the potential for exposure to hazardous materials as described under Issue 4, impacts are conservatively assumed to be potentially significant.

5.6.3.6 Issue 6: Upset or Accidental Release of Hazardous Materials

Would the project create a significant hazard to the public or environment through the reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment?

Implementation of the AMP would not introduce any new land uses not already occurring within the boundaries of the Airport. Improvements would be phased over a 20-year period. The AMP includes both airside and landside components that are prioritized with regard to improving safety and meeting FAA guidelines, as well as enhancing operations. As part of the AMP, aircraft movement areas would be realigned and subsequently navigational aids would be modified to meet the new alignments, and a new terminal building, hangar sites maintenance, and support facilities would be constructed.

Construction

Implementation of the improvements within the AMP may involve grading and excavation for the installation of building substructures and subgrade utilities. The areas immediately around the Airport site have a history of hazardous materials use including USTs used to store aviation fuel, as

discussed above under Issue 4. A review of environmental databases for the area revealed sites that have had a known release of hazardous materials to the subsurface. These sites are in varying stages of characterization and remediation. Some clean-up activities have been completed to the satisfaction of the overseeing agency; however, there is a potential for earthwork activities to encounter previously unidentified contamination or even undocumented USTs. Disturbed contaminated soil could expose construction workers and the public to contaminants causing various short-term health effects such as nausea, vomiting, headache, dizziness, or burns. This would result in a potentially significant impact.

Construction activities would require certain hazardous materials (fuels, adhesives, solvents) that, if improperly used and inadvertently released, could result in a temporary hazard to workers or the public. Spills of hazardous materials on construction sites are typically localized and are cleaned up in a timely manner. In most cases, the individual construction contractors are responsible for their hazardous materials and are required under their contract to properly store and dispose of these materials in compliance with state and federal laws. Given the quantities of hazardous materials typically needed for large construction projects and the use of BMPs as required by the General Construction National Pollutant Discharge Elimination System permit (see further discussion in Section 5.7, Hydrology and Water Quality), the threat of exposure to the public or contamination to soil and groundwater from construction-related hazardous materials is not considered to be significant.

Implementation of the AMP could also include demolition of existing structures. Disturbance of construction materials could expose construction workers, the public, or the physical environment to adverse health conditions due to the presence of hazardous materials such as asbestos and LBP. The potential for ACMs and LBP existing at the Airport site is considered to be likely due to the age of the structures on the site. Compliance with local, state, and federal regulations regarding the handling and disposal of these hazardous substances is considered adequate to reduce potential impacts to less than significant levels. See Section 5.1, *Air Quality*, for further discussion of ACMs and LBP.

Operation

Implementation of the AMP and operation of the Airport would continue to include the transport, storage, and usage of hazardous materials, including aviation fuel and associated oils and lubricants for refueling and maintenance necessary for various aircraft. If not handled appropriately, unauthorized releases could result in exposure to the public or environment, resulting in adverse effects. Operation and maintenance-related uses that may use hazardous materials such as petroleum products, cleaners, and solvents on a routine basis are not anticipated to change from existing conditions. Similar to existing conditions, the storage of hazardous materials and disposal of hazardous wastes are subject to the provisions of several regulatory agencies.

To receive certification as a Part 139 Airport from the FAA, an Airport Certification Manual must be prepared and regularly updated. To complete the certification process, a HMBP must be prepared and submitted to the DTSC for approval (e.g., the California Hazardous Waste Control Law [California H&SC, Division 20, Chapter 6.5], and the Hazardous Waste Control Regulations [CCR, Title 22, Division 4.5]). The goal of an HMBP is to protect both human and environmental health from adverse effects as a result of the storage or possible release of those materials. The HMBP specifies the types, quantities, applications, emergency response procedures, and contingency plan (spill

response) measures for the hazardous materials used during the operation of the facility. The adherence to these regulations would make the potential impact of the use of hazardous materials during the operation of the Airport less than significant.

5.6.4.2 Aircraft Hazards

Would implementation of the proposed project result in a safety hazard for people residing or working in a designated airport influence area?

SDM has a designated AIA, which is shown on Figure 2-12 of this EIR. Implementation of the AMP would not cause changes to aircraft activity at SDM that would result in new safety hazards for people residing or working within the AIA, outside of the Airport. In addition, future discretionary projects located within the AIA for SDM would be submitted to the ALUC for a consistency determination to ensure public safety is maintained.

New facilities proposed at SDM under the AMP, including reconfigured taxiways, additional hangar sites, a new maintenance building, and new support structures and facilities, would be consistent with existing land uses at the Airport and would not result in safety hazards for people present at the Airport during operations. During construction, temporary construction workers may be exposed to aircraft-related hazards, specifically when present within SDM's Airport Operating Area (AOA), which includes the portions of the Airport used for landing, takeoff, and surface maneuvering. However, for construction activities occurring within the AOA, an FAA-approved Construction Safety and Phasing Plan (CSPP) would be implemented. Per FAA requirements, the CSPP would include, but not be limited to, description/identification of the following: coordination efforts; construction phasing; areas and operations affected by construction; NAVAID facilities affected by construction; contractor access locations and restrictions; wildlife management; foreign object debris management; hazardous materials management procedures; notification of construction activities; inspection requirements; underground utilities to be located and protected; runway and taxiway visual aids; marking and signs for access routes; hazard marking and lighting; work zone lighting for nighttime construction; protection of runway and taxiway safety areas; and other limitations on construction. Based on compliance with the regulatory requirement, the project would not result in a significant safety hazard for temporary construction workers at the Airport. Impacts would, therefore, be less than significant.

5.6.5 Significance of Impacts

5.6.4.1 Wildfire Risk

Although the AMP area is designated as a Very High Fire Hazard Severity Zone, future development would be subject to regulatory requirements related to fire hazards and prevention. Moreover, the AMP would not introduce any new land uses not already operating onsite, thereby creating a new wildland fire impact. Therefore, impacts associated with wildfire risk would be less than significant.

5.6.4.2 Hazardous Emissions and Materials in Proximity to Schools

There are no schools within a quarter mile of the AMP. Schools are considered an incompatible use within the AIA and any future proposed schools within two miles of the AMP would be required to undergo investigation. Therefore, the project would have no impact in relation to this issue.

5.6.4.3 Emergency Response Plans

Implementation of the project would not impair the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; therefore, impacts would be less than significant.

5.6.4.4 Hazardous Materials Sites

Future development under the AMP would be required to adhere to applicable regulatory/industry codes, standards, and requirements related to health hazards from hazardous materials sites. This includes obtaining clearance from the regulatory agencies for remediation efforts at applicable locations, including the listed sites within and adjacent to the AMP area. However, although compliance with existing regulations would minimize impacts associated with hazardous materials, impacts remain potentially significant due to the potential exposure to construction workers and the public during the implementation of the project.

5.6.4.5 Areas of Potential Environmental Concern

Due to the areas of potential environmental concern identified in the Hazardous Materials Technical Report, impacts remain potentially significant due to the potential exposure to construction workers and the public during the implementation of the project.

5.6.4.6 Upset or Accidental Release

Due to the areas of potential environmental concern identified within the AMP area, there is a potential for accidental upset or release of hazardous materials during construction, and impacts would be potentially significant.

During operation, land uses associated with the AMP would continue to use, store, transport, and dispose of hazardous materials and wastes. Required adherence to the regulatory statutes reduces the impacts in relation to upset or accidental release to less than significant.

5.6.5.1 Aircraft Hazards

Through compliance with regulatory requirements, including a CSPP, the project would not result in a safety hazard for people residing or working in SDM's AIA, and impacts would be less than significant.

5.6.6 Mitigation Framework

5.6.6.1 Issue 4: Hazardous Materials Sites

MM HAZ-1 **Construction Health and Safety Plan.** For sites where contamination is suspected, including where the Hazardous Materials Technical Study (The Bodhi Group 2019) has identified a potential for contamination, the City shall prepare a health and safety plan, based on the site conditions, by a licensed industrial hygienist. The health and safety plan, in accordance with OSHA's Hazardous Waste Operations and Emergency Response Standard, shall identify potential contaminants that may be encountered, appropriate personal protective equipment, and worker safety procedures, including agency notification requirements in the event that suspected contamination is encountered. Any additional investigation or remediation follow-up work shall be completed by the responsible party to the satisfaction of the City of San Diego's Local Enforcement Agency or other local, state, or federal agency with regulatory oversight for the specific hazardous condition prior to a change in site use. Any identified contaminated soils shall be disposed of at a licensed waste disposal facility in accordance with local and state disposal requirements, and any imported soils shall be verified as free of contamination.

MM HAZ-2 **Soil Vapor Intrusion Assessment.** Prior to the issuance of any building permits for locations within the AMP area where volatile contaminants have been identified in the Hazardous Materials Technical Report (The Bodhi Group 2019), an assessment of soil vapor quality shall be conducted by a qualified environmental professional. If soil vapors are found present, then a soil vapor barrier shall be incorporated into the final project design plans in accordance with local regulatory oversight unless a risk assessment study prepared by a qualified professional can demonstrate that no adverse effects would be encountered.

MM HAZ-3 **Phase 1 Environmental Site Assessment**. For sites that may have the potential for encountering soil impacted with ADL, LBP, or other hazardous building materials, or for properties located within groundwater basins designated for current or potential municipal beneficial uses as identified in the Hazardous Materials Technical Report (The Bodhi Group 2019), a Phase 1 Environmental Site Assessment shall be conducted to determine whether remediation is required. The City shall implement any recommendations of the Phase 1 Environmental Site Assessment, including construction monitoring of the project construction and/or remediation of the soil or groundwater to applicable regulatory standards.

5.6.6.2 Areas of Potential Environmental Concern

Implementation of mitigation measures MM HAZ-1, MM HAZ-2, and MM HAZ-3 would address impacts related to areas of potential environmental concern.

5.6.6.3 Upset or Accidental Release

Implementation of mitigation measures MM HAZ-1, MM HAZ-2, and MM HAZ-3 would address impacts related to upset or accidental release of hazardous materials.

5.6.7 Significance of Impacts After Mitigation

5.6.7.1 Hazardous Materials Sites

Implementation of mitigation measures MM HAZ-1, MM HAZ-2, and MM HAZ-3 would reduce impacts related to hazardous materials sites to a less-than-significant level.

5.6.7.2 Areas of Potential Environmental Concern

Implementation of mitigation measures MM HAZ-1, MM HAZ-2, and MM HAZ-3 would reduce impacts related to areas of potential environmental concern to a less-than-significant level.

5.6.7.3 Upset or Accidental Release

Implementation of mitigation measures MM HAZ-1, MM HAZ-2, and MM HAZ-3 would reduce impacts related to upset or accidental release of hazardous materials to a less-than-significant level.

5.7 Hydrology and Water Quality

This section of the PEIR addresses potential impacts related to hydrology and surface and groundwater quality that could result from the implementation of the AMP.

5.7.1 Existing Conditions

The existing environmental setting, which includes a description of existing conditions relative to drainage, floodplains, water quality, and groundwater, is contained in Section 2.4.7 of this PEIR. Section 4.7 of this PEIR includes a summary of the regulatory framework relative to hydrology and water quality.

5.7.2 Methodology and Assumptions

Potential impacts resulting from the implementation of the proposed AMP were evaluated based on relevant information from the RWQCB and Chapter 4 of the AMP (C&S 2019). Based on a review of relevant maps and hydrologic documentation, the analysis presents the potential for hydrology and water quality impacts to occur within the AMP area.

5.7.3 Significance Determination Thresholds

Based on the City's Significance Determination Thresholds (City 2022a), which have been adapted to guide a programmatic analysis for the proposed project, a significant hydrology/water quality impact would occur if implementation of the proposed project would:

1. Result in flooding due to an increase in impervious surfaces, changes in absorption rates, drainage patterns, or the rate of surface runoff;

2. Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map which would impede or redirect flood flows;

3. Result in a substantial increase in pollutant discharge to receiving waters and increase the discharge of identified pollutants to an already impaired water body; or

4. Deplete groundwater supplies, degrade groundwater quality, or interfere with groundwater recharge.

5.7.4 Impact Analysis

5.7.4.1 Issue 1: Flooding and Drainage Patterns

Would the proposed project result in flooding due to an increase in impervious surfaces, changes in absorption rates, drainage patterns, or the rate of surface runoff?

Proposed improvements under the AMP would involve the demolition of impervious surfaces at multiple taxiway and runway locations and the construction of impervious surfaces on the western portion of the AMP area in association with the proposed hangars. Currently, the western portion of the AMP area that is proposed for the development of the hangars contains undeveloped non-native grassland. Stormwater in this area is generally retained on-site due to the presence of pervious soils and vegetation. Construction of impervious surfaces would alter the drainage pattern and increase the rate and amount of surface runoff above existing conditions, which could result in flooding.

Individual developments implemented under the proposed AMP would be required to adhere to NPDES requirements to control direct stormwater discharges, and to the City's Storm Water Standards Manual. The Storm Water Standards Manual contains requirements that dictate design elements in development and redevelopment projects to retain stormwater on-site and limit runoff. The Storm Water Standards Manual also includes Hydromodification Management Plan (HMP) requirements, which include design elements to limit storm water runoff discharge rates and durations, specifically in locations where downstream channels are susceptible to erosion.

Development in the City is subject to drainage regulations contained in SDMC Chapter 14, Article 2, Division 2, Storm Water Runoff and Drainage Regulations, which requires that the existing flows of a property proposed for development are maintained to ensure that the existing structures and systems handling the flows are sufficient. Since future development under the proposed AMP would be required to adhere to applicable drainage regulations, implementation of the proposed AMP would not result in flooding due to an increase in impervious surfaces, changes in absorption rates, drainage patterns, or the rate of surface runoff. Impacts related to flooding from surface runoff would be less than significant.

5.7.4.2 Issue 2: Flood Hazard Areas

Would the proposed project place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map which would impede or redirect flood flows?

According to the FEMA maps (map references 06073C2178G and 06073C2179G), the Airport and land surrounding its border are within Zone X (areas determined by FEMA to be outside the 0.2 percent annual chance floodplain [C&S 2019]). The nearest floodplains are associated with the Otay River to the north and Johnson Canyon Creek to the east. As such, future development under the proposed project would not be located within a 100-year flood hazard area and would not impede or redirect flood flows. Impacts related to flood hazard areas would be less than significant.

5.7.4.3 Issue 3: Water Quality

Would the proposed project result in a substantial increase in pollutant discharge to receiving waters and increase discharge of identified pollutants to an already impaired water body?

Future development projects in accordance with the proposed AMP would have the potential to change pollutant discharges either from an increase in the volume of stormwater runoff due to an increase in impervious surfaces or from additional new sources of pollution. Construction and

operation of future development would comply with applicable permits and incorporate required BMPs. This would limit runoff and potential pollutants associated with construction and airport operations, such as sediment, trash and debris, fuels, solvents, oils, lubricants, cleaners, and paints. Individual future development projects greater than one acre in area, or that are less than one acre but are part of a larger common plan of development, would be subject to the requirements of the Construction General Permit, which would require the implementation of a SWPPP and associated BMPs to be used during and after construction to prevent the discharge of sediment and other pollutants in stormwater runoff from the AMP area. Similarly, projects less than one acre in size, and not part of a larger common plan of development, would incorporate a WPCP, which would identify pollution prevention measures. During operation, numerous airport facilities at the AMP area would implement BMPs required by the Industrial General Permit (General Permit) for stormwater discharges.

Under current storm water regulations in the City, including the Storm Water Standards Manual and the Jurisdictional Runoff Management Plan, future development under the AMP requiring approvals would be subject to certain minimum storm water requirements to protect water quality. Types of storm water BMPs required for new developments include site design, source control, and treatment control BMPs.

Storm water BMPs would reduce the amount of pollutants transported from a future development project to receiving waters. Compliance with requirements set forth under the Storm Water Standards Manual and Jurisdictional Runoff Management Plan would also allow projects to be in compliance with the most current MS4 Permit, which implements a regional strategy for water quality and related concerns. Therefore, impacts related to water quality would be less than significant.

5.7.4.4 Issue 4: Groundwater

Would the proposed project deplete groundwater supplies, degrade groundwater quality, or interfere with groundwater recharge?

The proposed project does not include developments that would result in the direct use of groundwater. Therefore, the project would not deplete groundwater supplies. In addition, according to the Water Quality Control Plan for the San Diego Basin (California RWQCB 1994 as amended through 2021), most of the groundwater in the region has been extensively developed, and the availability of potential future uses of groundwater resources is limited. Further development of groundwater resources would most likely necessitate groundwater recharge programs to maintain adequate groundwater table elevations.

The project would result in an increase in impervious surfaces on-site, which may interfere with groundwater recharge. However, current storm water regulations encourage infiltration of storm water into groundwater and protection of water quality, allowing for groundwater recharge and protecting the quality of groundwater. As such, it is not anticipated that the proposed AMP would degrade groundwater quality or interfere with groundwater recharge. Therefore, impacts related to groundwater recharge, quality, and quantity would be less than significant.

5.7.5 Significance of Impacts

5.7.5.1 Flooding and Drainage Patterns

Individual developments implemented under the proposed AMP would be subject to requirements of the NPDES, the City's Storm Water Standards Manual, and the SDMC Storm Water Runoff and Drainage Regulations. Therefore, although the project would result in an increase of impervious surfaces in the AMP area, it would not alter drainage patterns or increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site; impacts would be less than significant.

5.7.5.2 Flood Hazard Areas

The AMP area is not mapped as a 100-year flood hazard area (FEMA 2019). Therefore, the project shall not place structures in a flood hazard area. Therefore, impacts would be less than significant.

5.7.5.3 Water Quality

Construction of future development projects in accordance with the proposed AMP would be subject to applicable requirements, including either a General Construction Permit or WPCP, which would address the potential for the transport of pollutants in runoff water. Future specific projects would also be subject to the requirements of the Storm Water Standards Manual, Jurisdictional Runoff Management Plan, and MS4 Permit. Therefore, provided that future projects comply with the requirements within these regulations, impacts related to water quality from the implementation of the proposed project would be less than significant.

5.7.5.4 Groundwater

The project would not result in the direct use of groundwater. Individual developments under the proposed AMP would be subject to stormwater regulations that encourage infiltration of stormwater and the protection of water quality. As such, the proposed project is not anticipated to deplete groundwater supplies, degrade groundwater quality, or interfere with groundwater recharge; therefore, impacts would be less than significant.

5.7.6 Mitigation Framework

Implementation of the proposed project would result in less than significant impacts to hydrology and water quality.

5.8 Land Use

This section discusses land use impacts associated with the proposed AMP, including the consistency with applicable plans and regulations and physical community division. This section analyzes the potential that the implementation of the proposed AMP would have indirect or secondary environmental impacts.

5.8.1 Existing Conditions

The existing environmental setting, which includes a detailed discussion and description of existing land uses surrounding the AMP area is contained in Section 2.4.8 of this PEIR, and a summary of the regulatory framework relative to land use, which describes applicable land use plans, ordinances, and regulations is contained in Section 4.8 of this PEIR.

5.8.2 Methodology and Assumptions

Potential impacts resulting from the implementation of the proposed AMP were evaluated based on the consistency of the proposed AMP with the ALUCP, the City's General Plan, LDC, MSCP SAP, OMCP, and VPHCP. Consistency with the MSCP SAP and VPHCP is further addressed in Section 5.2, *Biological Resources*.

5.8.3 Significance Determination Thresholds

The determination of significance regarding an 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 CEQA. Based on the City's CEQA Significance Determination Thresholds (City 2022a), which have been adapted to guide a programmatic analysis for the proposed project, impacts on land use would be significant if the proposed project would:

1. Conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan or regulation and, as a result, cause an indirect or secondary environmental impact;

2. Conflict with the provisions of the City's MSCP SAP or other approved local, regional, or state habitat conservation plan;

3. Result in land uses which are not compatible with an adopted ALUCP; or

4. Physically divide an established community.

5.8.4 Impact Analysis

5.8.4.1 Issue 1: Consistency with Environmental Policies of Adopted Land Use Plans

Would implementation of the proposed project conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan or regulation and, as a result, cause an indirect or secondary environmental impact?

City of San Diego General Plan

As discussed in Section 4.8 of this PEIR, of the ten elements in the City of San Diego General Plan, six elements contain goals and policies that are pertinent to the AMP: (1) Land Use and Community Planning Element; (2) Mobility Element; (3) Public Facilities, Services, and Safety Element; (4) Conservation Element; (5) Noise Element; and (6) Historic Preservation Element. The compatibility of the AMP with each of these elements is discussed in further detail below.

Land Use and Community Planning Element

The City's General Plan Land Use and Community Planning Element contains two airport-related land use compatibility goals that highlight the City's priority in protecting the health, safety, and welfare of persons within an AIA as well as protecting airports from incompatible land uses that could constrain operations (see Section 4.8.4.1 of this PEIR). Consistent with these goals, two of the main objectives of the AMP as stated in Section 3.2, Objectives of this PEIR, are to implement safety improvements necessary to bring the Airport into compliance with FAA regulations and design criteria, and maintain a balance between the Airport users and the surrounding community.

The AMP outlines a series of airside and landside improvements and modifications that would accommodate current aircraft and forecasted demands: the reconfiguration of taxiways to meet FAA compliance standards; potential improvements related to the terminal building; new hangars, a centralized maintenance facility, and a new wash rack. Collectively, these improvements would provide for safer Airport-related operations as well as economic benefits by modernizing and expanding the usable spaces to meet the forecasted demand.

Mobility Element

The purpose of the General Plan Mobility Element is to improve mobility through the development of a balanced, multi-modal transportation network. As it relates to general aviation, the Mobility Element sets forth policies that foster growth to meet transportation and economic needs both on and offsite, support public safety, law enforcement, and aviation training activities, and promote the integration with multi-modal surface transportation.

The AMP was prepared in part to define the extent, type, and schedule of development needed for SDM. Preparation of the AMP included an assessment of the existing inventory of airside, support, and landslide facilities; the preparation of demand forecasts to determine the type, size, and timing of aviation facility development; and the formulation and evaluation of alternatives to ultimately construct an update to the existing master plan that would best respond to existing and projected

future needs. This is evident through a combination of proposed landslide and airside components that include new hangars, terminal building improvements, a centralized maintenance facility, a new run-up area, and taxiway reconfigurations.

In addition, the objectives for the AMP are aligned with the goals set forth in the City's Mobility Element. Consistent with the Mobility Element, the AMP strives to maintain a balance between the airport users and the surrounding community while encouraging airport business growth and opportunities as well as implement safety improvements consistent with FAA regulations and design criteria.

Public Facilities, Services, and Safety Element

The focus of the Public Facilities, Services, and Safety Element is to ensure the provision of adequate public facilities and services through policies that address public financing strategies, public and developer financing responsibilities, prioritization, and the provision of specific facilities and services that accompany growth. The policies within the Public Facilities, Services, and Safety Element also apply to transportation improvements with additional guidance from the Mobility Element.

As discussed above, the AMP was prepared to respond to the existing and projected needs of SDM to meet both safety and design criteria but also to meet projected demand for facilities and services and promote additional economic growth. Implementation of the various components of the AMP would require financing strategies that incorporate funding from various regulatory agencies. A phasing plan has been developed based on safety, need, and financing.

Conservation Element

The General Plan Conservation Element provides for the long-term conservation and sustainable management of the rich natural resources that help define the City's identity, contribute to its economy, and improve its quality of life. One of the objectives of the AMP is to preserve natural resources within airport lands. As discussed in Section 5.2 of this PEIR, Biological Resources, the AMP would potentially have an impact on sensitive wildlife species and sensitive habitats, as well as potential construction-related impacts. Mitigation measures MM BIO-1 through MM BIO-7 would reduce these impacts to less than significant. In addition, the proposed AMP would enhance energy-efficiency by retrofitting lighting fixtures and complying with the City's CAP for the purpose of reducing GHG emissions.

Noise Element

The purpose of the General Plan Noise Element is to protect people living and working in the City of San Diego from excessive noise. The General Plan Noise Element provides goals and policies to guide compatible land uses and the incorporation of noise attenuation measures for new uses to protect people living and working in the City from an excessive noise environment. Section 4.9 of this PEIR contains a list of the goals and policies as they relate to airport noise and noise in general. Largely, the policies as they apply to the AMP are related to the appropriate siting of land uses in relation to the noise contours included in the ALUCP.

As discussed in Section 5.9, *Noise*, the implementation of the AMP is not anticipated to result in land use/noise incompatibilities between the Airport and surrounding land uses.

Historic Preservation Element

The purpose of the General Plan Historic Preservation Element is also to improve the quality of the built environment, encourage appreciation for the City's history and culture, maintain the character and identity of communities, and contribute to the City's economic vitality through historic preservation.

General Plan Policies HP-A.1 through HP-A.5 are associated with the overall identification and preservation of historical resources. This includes policies to provide for comprehensive historic resource planning and integration of such plans within City land use plans. These policies also focus on coordinated planning and preservation of tribal resources, promoting the relationship with Kumeyaay/Diegueño tribes. Historic Preservation Policies HP-B.1 through HP-B.4 address the benefits of historical preservation planning and the need for incentivizing maintenance, restoration, and rehabilitation of designated historical resources. This is proposed to be completed through a historic preservation sponsorship program and through cultural heritage tourism.

Impacts associated with historical, archaeological, and tribal cultural resources are discussed in Section 5.5, *Historical, Archaeological, and Tribal Cultural Resources*, of this PEIR. Implementation of mitigation measures MM HIST-1, MM HIST-2, and HIST-3 would ensure that the implementation of the proposed AMP would be consistent with the Historic Preservation Element.

Summary

The proposed AMP would generally be consistent with and support the goals and policies identified in the General Plan. Implementation of mitigation measures MM BIO-1 through MM BIO-7 and MM HIST-1 through MM HIST-3 would ensure that impacts associated with land use consistency with applicable plans would be less than significant.

Land Development Code Regulations

As discussed in Section 4.0, *Regulatory Framework*, the LDC contains Citywide base zones that specify permitted land uses, densities, FARs, and other development requirements for given zoning classifications; as well as overlay zones and supplemental regulations that provide additional development requirements.

Environmentally Sensitive Lands Regulations

As discussed in Section 5.2 of this PEIR, *Biological Resources*, ESLs include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs, and 100-year floodplains. Mitigation requirements for sensitive biological resources follow the requirements of the City's Biology Guidelines (2018), as outlined in the SDMC ESL Regulations (Chapter 14, Article 3, Division 1). ESLs within the AMP area include maritime succulent scrub, Diegan coastal sage scrub, baccharis scrub, and non-native grassland.

The purpose of the ESL Regulations is to, "protect, preserve and, where damaged, restore the ESL of San Diego and the viability of the species supported by those lands." The AMP would not impact vernal pools, wetlands, or other open water habitats. Moreover, the AMP development areas are located entirely outside of the MHPA and all components are greater than 500 feet from the MHPA;

therefore, the project would not result in indirect impacts/edge. Thus, the project is consistent with the ESL Regulations.

Historical Resources Regulations

The Historical Resources Regulations (Section 143.0213(a) of the LDC) apply when historical resources are present. As defined by the Historical Resources Regulations, historical resources include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties. As discussed in Section 5.5, *Historical, Archaeological, and Tribal Cultural Resources*, the implementation of the AMP would have the potential to affect historic resources. Implementation of mitigation measures MM HIST-1, MM HIST-2, and HIST-3 would ensure that improvements associated with the AMP would be consistent with the City's Historical Resources Regulations.

Climate Action Plan

In December 2015, the City adopted its CAP. The CAP identifies measures to meet GHG reduction targets for 2020 and 2035. On August 2, 2022, the City Council adopted an update to the CAP (2022 CAP). As proposed in the 2022 CAP, in October 2022, the City Council approved an amendment to the LDC (SDMC Chapter 14, Article 3, Division 14), which established the CAP Consistency Regulations. The CAP Consistency Regulations replaced the CAP Consistency Checklist as the measures that could be implemented on a project-by-project basis pursuant to CEQA Guidelines Section 15183.5(b)(1)(D). Projects for new development that are consistent with the CAP, as determined through compliance with the CAP Consistency Regulations, may rely on the CAP for the cumulative impact analysis of GHG emissions (City 2022b). As discussed in Section 5.4, *Greenhouse Gases*, the implementation of the AMP would not conflict with or create inconsistencies with the CAP.

Otay Mesa Community Plan

The OMCP, most recently updated in 2014 (City 2014), includes a set of goals, policies, and recommendations that represent a shared vision for the future of the area. The community of Otay Mesa encompasses approximately 9,300 acres located at the southern limit of the City.

The Airport is within the Airport District in the OMCP, which is generally bounded by SR 905 to the south, Spring Canyon and Dennery Canyon to the west, the City/Chula Vista boundary to the north, and the City/County boundary to the east. The OMCP designates the land within Airport boundaries as Institutional and within the AMP study area. The area southwest of the intersection between Otay Mesa Road and Heritage Road is designated for Business and International Trade. The AMP does not propose land uses that would be inconsistent with the OMCP.

Section 4.12 of the OMCP discusses the preservation of major and minor public view corridors and access corridors within Otay Mesa. Implementation of the AMP would be consistent with OMCP policies 4.12-1 and 4.12-4 because the proposed AMP would protect view corridors and would not obstruct viewpoints to the Otay River Valley. See Section 5.12, *Visual Effects and Neighborhood Character*, of this PEIR for a discussion of view corridors in the AMP area.

Section 8, the Conservation Element of the OMCP, discusses the preservation of the natural open space canyon network and associated biological resources; vernal pool preservation; and management of GHG reductions through the implementation of village land use plans, support for transit, incentives for clean technology industries, alternative energy generation, and sustainable development. It contains policies related to the consistency with the City's ESL Regulations (Policies 8.1-1, 8.1-2, 8.1-3), MSCP Implementation (Policies 8.1-4, 8.1-5, 8.1-6), and Vernal Pools (Policies 8.1-7 and 8.1-8). See Section 5.2, *Biological Resources*, of this PEIR for the consistency of the AMP with the City's Biology Guidelines (City 2018). Implementation of mitigation measures MM BIO-1 through MM BIO-7 would ensure consistency with OMCP's policies for the preservation of natural resources.

Section 9.1 of the OMCP pertains to Aircraft Noise, and Policies 9.1-1 and 9.1-2 relate to satisfying applicable criteria within the ALUCP prior to proposed uses within the AIA for SDM. The AMP would not result in any inconsistencies with these policies because the existing land uses are compatible with the OMCP.

Section 10 of the OMCP is the Historic Preservation Element. The overall goals within this element are for the identification and preservation of significant historic resources in Otay Mesa and to provide educational opportunities and incentives related to historical resources in Otay Mesa. Specific policies within the Historic Preservation Element that relate to the preservation of archaeological and historic resources include Policies 10.1-1, 10.1-2, 10.1-3, and 10.1-4. Proposed improvements within the AMP have the potential to affect historic and archaeological resources as discussed in Section 5.6 of this PEIR. With the implementation of measures MM HIS-1, MM HIS-2, and MM HIS-3, impacts would be less than significant in relation to the consistency of these policies.

5.8.4.2 Issue 2: Consistency with the Multiple Species Conservation Program Subarea Plan and Vernal Pool Habitat Conservation Plan

Would the proposed project conflict with the provisions of the City's Multiple Species Conservation Program (MSCP) Subarea Plan or other approved local, regional, or state habitat conservation plan?

Multiple Species Conservation Program Subarea Plan

The MSCP covers core biological resource areas identified as the City's MHPA. The MHPA is the area within the City from which the permanent MSCP preserve is assembled and managed for its biological resources. Activities associated with the AMP are located outside of the MHPA; therefore, no further analysis is required. Future development in accordance with the AMP would be subject to the MHPA Land Use Adjacency Guidelines and thus, the implementation of the proposed AMP would be consistent with applicable guidelines as presented in Table 5.2-3, *MHPA Land Use Adjacency Guidelines Consistency*. Therefore, impacts related to conflicts with the City's MSCP SAP would be less than significant.

The Priority 2 Management Directive for Otay Mesa is: *Evaluate the mesa north of Brown Field for potential research opportunities in studying natural regeneration. If regeneration is not possible, pursue restoration of disturbed habitats in this area.* Impacts resulting from the AMP would avoid the mesa north of SDM. Therefore, AMP activities would not conflict with this management directive.

Vernal Pool Habitat Conservation Plan

The City of San Diego VPHCP (City 2019) was prepared to provide an effective framework to protect, enhance, and restore vernal pool resources in specific areas within the City's jurisdiction. The AMP's compliance with the specific minimization measures contained within the VPHCP are listed in Table 5.2-4, *VPHCP Consistency*. As discussed in Section 5.2, *Biological Resources*, the AMP conforms to the provisions of the City's VPHCP and would implement avoidance and minimization measures identified in Section 5.2.1 of the VPHCP. Future development in accordance with the proposed AMP would be subject to compliance with the City's VPHCP Sections 5.2.1 and 5.3.1. Therefore, impacts related to conflicts with the City's VPHCP would be less than significant.

5.8.4.3 Issue 3: Consistency with Adopted Airport Land Use Compatibility Plans

Would the proposed project result in land uses which are not compatible with an adopted ALUCP?

The ALUCP is distinct from the AMP in function and content. In simple terms, the issues addressed by airport master plans are primarily on-airport, whereas those of concern in a compatibility plan are generally off-airport. The purpose of AMPs is to assess the demand for airport facilities and to guide the development necessary to meet those demands. In contrast, the major purpose of a compatibility plan is to ensure that incompatible development does not occur on land surrounding the airports. Specifically, the ALUCP is to provide land use measures that ensure the safety and welfare of the public, including being protected from excessive noise and safety hazards associated with aviation by discouraging incompatible development in areas surrounding airports.

As stated in Section 3.3 of this PEIR, Project Objectives, the intent of the AMP is in part to implement safety improvements necessary to bring the airport into compliance with FAA regulations and design criteria. In doing so, improvements and modifications to the existing taxiways are proposed as part of the AMP.

The current SDM ALUCP is based on the ALP most recently approved by the FAA. Any changes to the ALP occurring as a result of the AMP would be reviewed by the ALUC to determine potential updates required to the ALUCP. Modifications to the runways and taxiways as well as other facilities would require an update to the ALUCP for changes in noise contours, safety zones, and/or land use type or density policies within the ALUC jurisdiction for SDM. Processing an update to the ALUCP would ensure consistency and reduce levels to less than significant.

5.8.4.4 Issue 4: Community Division

Would implementation of the proposed project physically divide an established community?

Implementation of the proposed AMP includes both landside and airside improvements and modifications that lie entirely within the boundaries of SDM. AMP implementation would not include the acquisition of additional property and does not propose the introduction of new uses that are different or inconsistent from the existing uses in the area. Thus, the project would not divide an established community.

5.8.5 Significance of Impacts

5.8.5.1 Consistency with Environmental Policies of Adopted Land Use Plans

With the implementation of mitigation measures MM BIO-1 through MM BIO-7 and MM HIS-1 through MM HIS-3, the project's impacts in relation to the consistency with applicable land use plans are reduced to less than significant.

5.8.5.2 Consistency with the MSCP SAP and VPHCP

The AMP does not conflict with the MSCP or the VPHCP. Activities associated with the AMP are located outside of the MHPA. As discussed in Section 5.2, *Biological Resources*, the project conforms to the provisions of the City's VPHCP and would implement avoidance and minimization measures identified in Section 5.2.1 of the VPHCP. Therefore, impacts would be less than significant.

5.8.5.3 Consistency with ALUCP

Changes to the ALP occurring as a result of the AMP would be reviewed by the ALUC to determine potential updates required to the ALUCP. Modifications to the runways and taxiways, as well as other facilities, would require an update to the ALUCP for changes in noise contours, safety zones, and/or land use type or density policies within the ALUC jurisdiction for SDM. Processing an update to the ALUCP would ensure consistency and reduce levels to less than significant.

5.8.5.4 Community Division

The airside and landside improvements and modifications proposed as part of the AMP would occur entirely within the existing boundaries of SDM. Land uses compatible with the guidelines of the AIA would continue to be acceptable, and the AMP would not affect any current operations within the AIA. The project would not physically divide an established community; no impact would occur, and no mitigation is required.

5.8.6 Mitigation Framework

No new mitigation is required beyond those already identified for biological resources (MM BIO-1 through MM BIO-7) and historical resources (MM HIST-1 through MM HIST-3).

5.9 Noise

This section of the PEIR addresses potential noise and vibration impacts that would result from the implementation of the proposed AMP. The analysis in this section is based, in part, on the *Airport Master Plan Study for Brown Field Municipal Airport – 2037 Forecast Noise and Air Quality Modeling Assumptions Technical Memorandum* (HMMH 2019), which is included as Appendix C.

5.9.1 Existing Conditions

The existing environmental setting, which includes a discussion of the existing noise environment in the vicinity of the AMP area is contained in Section 2.4.9 of this PEIR. As indicated in that section, the primary noise generators within the vicinity of the AMP area include freeways (I-805, I-15, SR 905, and SR 52), major roadways, and aircraft operations at SDM. Section 4.9 of this PEIR includes a summary of the regulatory framework relative to noise.

5.9.2 Methodology and Assumptions

5.9.2.1 Vehicular Traffic Noise

Vehicles traveling along major local roadways and freeways generate noise levels that affect adjacent land uses. Traffic noise generated on a roadway is dependent on vehicle speed, volume, flow, percentage of vehicle types, properly functioning muffler systems, and pavement type and conditions. Traffic noise is also dependent on the presence of barriers and the distance between the noise source and the receptor. In general, as traffic volumes increase, noise levels increase. This condition exists until there is so much traffic that flow degrades and speeds decrease which reduces noise levels. Furthermore, a heavy truck generates more noise than a car when travelling at the same speed and distance. Roads with the same amount of traffic can have higher or lower sound levels depending on the mixture of vehicles.

Trip generation for the proposed AMP was estimated by first determining a trip generation per flight and per employee based on existing airport operations. These rates were then multiplied by the total projected number of flights and employees under the buildout of the AMP. At buildout, the AMP would result in an increase of 231 daily vehicle trips over existing conditions (CR Associates 2024). Data from SANDAG's Transportation Forecast Information Center was used for non-AMP traffic volumes on roadways in the AMP area.

5.9.2.2 Aircraft Noise

Future aircraft noise under the buildout of the AMP was estimated by HMMH (2019) using the FAA's AEDT. AEDT incorporates specific noise and performance data for each aircraft type operating at the airport. Noise data is in the form of Sound Exposure Level at a range of distances (from 200 feet to 25,000 feet) from a particular aircraft with engines at a range of thrust levels. Performance data include thrust, speed, and altitude profiles for takeoff and landing operations.

Noise was estimated for the proposed 2037 forecast conditions at SDM, incorporating aircraft operations, runway utilization, flight geometry and use, meteorological conditions, and terrain data. Refer to Appendix J for additional details on the aircraft noise assessment methodology.

5.9.2.3 Stationary Noise

Stationary sources of noise include activities associated with a given land use. The AMP includes various stationary noise sources associated with airport operations and support facilities. Noise levels from stationary sources are highly localized and may vary during the day based on the specific activity being performed, atmospheric conditions, and other factors. Stationary noise is considered a "point source" and generally attenuates over distance at a rate of six dBA for each doubling of distance.

5.9.2.4 Construction Noise

Although typically short-term, construction can be a substantial source of noise. The primary noise source is the operation of heavy off-road diesel-powered construction equipment. Typical construction equipment noise levels are shown in Table 5.9-1, *Typical Construction Equipment Noise Levels*. As shown in the table, the operation of construction equipment has the potential to generate high noise levels depending on the type, duration, and location of the activity.

Table 5.9-1
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Use per hour (percent)	Typical Noise Level at 50 feet (one-hour dBA L_{EQ})
Concrete saw	20	82.6
Crane	16	72.6
Crushing machine	50	83.5
Excavator	40	76.7
Generator	50	79.0
Grader	40	81.0
Paving equipment	50	74.8
Paving machine	50	74.8
Roller	20	78.0
Rubber-tired dozer	40	77.7
Rubber-tired loader	40	75.1
Tractor/loader/backhoe	40	75.1
Welder	40	69.0

Source: U.S Department of Transportation Roadway Construction Noise Model, 2008.

5.9.2.5 Vibration

Potential sources of vibration from the implementation of the AMP would be associated with construction activities. Construction activities known to generate substantial levels of vibration include the use of vibratory rollers and pile driving.

5.9.3 Significance Determination Thresholds

Thresholds used to evaluate potential noise impacts are based on applicable criteria in the State CEQA Guidelines Appendix G and the City's CEQA Significance Determination Thresholds (City 2022a). Thresholds have been modified from the City's CEQA Significance Determination Thresholds to reflect a programmatic analysis for the proposed project. A significant noise impact could occur if the implementation of the proposed project would:

1. Result in or create a significant increase in the existing ambient noise levels;

2. Result in an exposure of people to current or future transportation noise levels that exceed guidelines established in the Noise Element of the General Plan;

3. Result in land uses that are not compatible with aircraft noise levels as defined by an adopted ALUCP;

4. Result in the exposure of people to noise levels which exceed property line limits established in the Noise Abatement and Control Ordinance of the Municipal Code;

5. Result in the exposure of people to significant temporary construction noise; or

6. Result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Thresholds used to determine the significance of noise impacts are based on standards in the General Plan Noise Element and the Noise Abatement and Control Ordinance (Section 59.5.0101 et seq. of SDMC) as described in Section 4.9.3 of this PEIR.

While the City has not established vibration and groundborne noise standards, publications by Caltrans provide guidance for the analysis of environmental impacts due to groundborne noise and vibration relating to transportation and construction projects. A significant vibration impact would occur where structures or human receivers would be exposed to the respective damage and annoyance thresholds, measured in PPV. See Table 5.9-2, *Maximum Vibration Levels for Construction Equipment for Potential Damage and Annoyance*.

TABLE 5.9-2
MAXIMUM VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT FOR POTENTIAL DAMAGE AND ANNOYANCE
(PPV in/sec)

Structure Type	Potential Damage Thresholds	"Strongly Perceptible" Annoyance Criteria	
		Transient Sources	Continuous/Frequent Intermittent Sources
Historic and some old buildings	0.5	0.9	0.1
Older residential structures	0.5		
New residential structures	1.0		
Industrial buildings	2.0		

Source: Transportation and Construction Vibration Guidance Manual, Caltrans 2020
Note: Transient sources generate a single vibratory event, such as blasting. Continuous/frequent sources include pile driving equipment and other construction activities generating multiple vibration-intensive events across a given period.
in/sec = inches per second; PPV = peak particle velocity

5.9.4 Impact Analysis

5.9.4.1 Issue 1: Ambient Noise

Would the proposed project result in or create a significant increase in the existing ambient noise levels?

The proposed AMP could result in a permanent increase in ambient noise levels due to on-site non-mobile operations, aircraft activity, and on-road vehicular traffic. On-site non-mobile operations would be subject to City noise standards and are discussed below under Section 5.9.4.4. Noise impacts associated with aircraft operations are discussed below under Section 5.9.4.2.

A significant impact related to roadway traffic noise could result if the AMP generates traffic that increases ambient noise levels by 3 dBA, which is considered a perceptible change in noise levels. A 3-dBA increase in noise levels generally requires a doubling of traffic. The AMP is expected to result in an increase of 231 daily vehicle trips (CR Associates 2024). These trips would likely occur along I-805, Ocean View Hills Parkway, and the western portion of Otay Mesa Road before the entrance to SDM. The segment along these three roadways with the lowest traffic volume occurs along Otay Mesa Road and has a daily traffic volume of 6,200 vehicles (SANDAG 2024). The AMP's estimated daily trip generation would not result in a doubling of traffic along this segment or the other segments of I-805, Ocean View Hills Parkway, and Otay Mesa Road, and would therefore not generate a 3-dBA increase in noise levels. Impacts associated with an increase in ambient noise levels from vehicular traffic would be less than significant.

5.9.4.2 Issue 2: Noise – Land Use Compatibility

Would the proposed project cause exposure of people to current or future transportation noise levels which exceed standards established in the Noise Element of the General Plan?

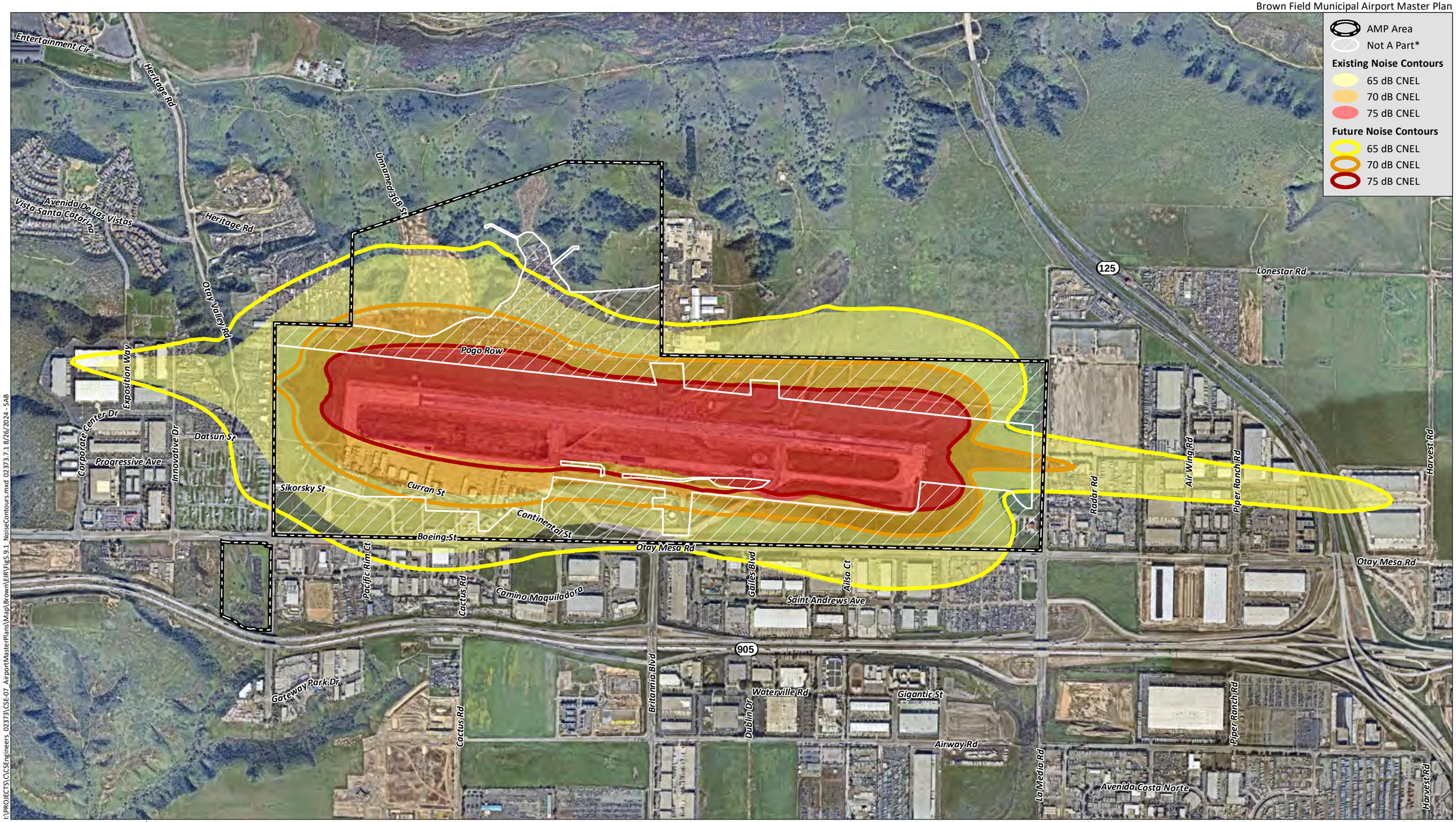
As noted above, vehicular noise levels from the implementation of the AMP are not expected to substantially increase compared to existing conditions and, therefore, would not exceed standards established in the Noise Element of the General Plan.

A comparison of the existing and future noise contours associated with SDM is shown on Figure 5.9-1, *Future Brown Field Municipal Airport Noise Contours.* The 75 CNEL contours are generally confined to the AMP area. The 70 CNEL contours extend slightly outside the AMP area across La Media Road to the east and across Heritage Road to the west. Land uses outside the AMP area that are within the 70 CNEL contour include industrial uses (car and truck storage uses). The 65 CNEL contour extends outside of the AMP area boundary in all directions. Land uses outside the AMP area that are within the 65 CNEL contour include industrial uses (car and truck storage uses and warehouse uses). Industrial uses are considered compatible with noise levels up to 75 CNEL. As such, the proposed AMP is not expected to cause the exposure of people to future aircraft noise levels that exceed the standards established in the Noise Element of the General Plan. Therefore, impacts associated with transportation noise levels are expected to be less than significant.

5.9.4.3 Issue 3: Aircraft Noise

Would the proposed project result in land uses which are not compatible with aircraft noise levels as defined by an adopted ALUCP?

New facilities proposed under the AMP include reconfigured taxiways, additional hangar sites, a new maintenance building, and new support structures and facilities, including wash racks, utilities, and fencing. These uses would be consistent with the existing land use (airport facilities). The taxiways, utilities, and fencing would not involve human occupation and, therefore, are not subject to the noise compatibility criteria set forth in the SDM ALUCP. The hangar sites, maintenance building, and wash racks would involve occasional human occupation and, therefore, are subject to the noise compatibility criteria set forth in the SDM ALUCP. These facilities would be located within the 70 CNEL contour (i.e., exposed to noise levels between 70 and 75 CNEL). Per the SDM ALUCP, the hangar sites and maintenance building are compatible with noise levels up to 75 CNEL, and would thus be consistent with applicable ALUCP noise compatibility criteria. The wash racks are conditionally compatible with noise levels up to 75 CNEL. The conditionally compatible criteria indicates that the CNEL is acceptable for outdoor uses but requires that sound attenuation be provided for indoor spaces sufficient to reduce exterior noise to an interior maximum of 50 CNEL. The wash rack would not include interior space; therefore, this requirement is not applicable. As such, the proposed uses would be consistent with SDM ALUCP noise computability criteria, and impacts would be less than significant.



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Source: Aerial (SanGIS 2023); Noise (HMMH 2024)

Future Brown Field Municipal Airport Noise Contours

Figure 5.9-1

5.9.4.4 Issue 4: San Diego Municipal Code – On-site Generated Noise

Would the proposed project result in the exposure of people to noise levels which exceed property line limits established in the Noise Abatement and Control Ordinance of the Municipal Code?

Components of the proposed AMP include reconfigured taxiways, rehabilitation of the terminal building and ATCT, additional hangar sites, a new maintenance building, and new support structures and facilities, including wash racks, utilities, fuel tank, and fencing. These uses would either not generate noise (e.g., the reconfigured taxiways and fencing) or would not create substantial new non-mobile sources of noise in the AMP area, as similar uses already exist. Noise levels of non-mobile sources would be similar to existing noise from current operations within the AMP area. In addition, areas surrounding the AMP area generally consist of industrial land uses, and potential minor increases of non-mobile operational noise generated at the AMP would not exceed the 75 dBA L_{EQ} property line noise limit due to the intervening distance between the AMP and nearby land uses. Furthermore, potential increases of non-mobile operational noise would not be perceptible to off-site receptors due to noise from aircraft and existing on-road traffic. Therefore, the proposed AMP would not expose off-site receptors to noise levels that would exceed property line limits established in the City Noise Ordinance. Therefore, impacts related to property line noise limits are expected to be less than significant.

5.9.4.5 Issue 5: Construction Noise

Would the proposed project result in the exposure of people to significant temporary construction noise?

A significant impact could occur if the implementation of the proposed AMP would result in the exposure of people to substantial temporary construction noise. Construction activities associated with the implementation of the airside and landside improvements under the proposed AMP would require the use of diesel-powered off-road equipment that would generate noise. Construction of individual improvements within the AMP area would occur over multiple phases and would not all occur simultaneously.

Construction activities anticipated to occur for the proposed improvements include pavement maintenance/rehabilitation, pavement reconstruction, pavement of new surfaces, pavement demolition, pavement marking, hangar construction, building demolition, and building construction. The magnitude of noise impacts would depend on the type of construction activity, equipment, the distance between the noise source and receiver, and any intervening structures. The loudest pieces of equipment expected to be required for construction activities include a grader for grading prior to paving new surfaces, a concrete saw for demolition of existing pavement and buildings, and a crushing machine for demolition of existing pavement. These pieces of equipment are modeled to generate noise levels of 81.0 dBA L_{EQ}, 82.6 dBA L_{EQ}, and 83.5 dBA L_{EQ}, respectively, at a distance of 50 feet. Assuming a noise attenuation rate of 6 dBA per doubling of distance (a general rule of thumb for noise analysis), noise levels from these three pieces of equipment would reduce to below the 75 dBA L_{EQ} (12-hour) City Noise Ordinance limit at 100 feet, 120 feet, and 133 feet, respectively.

The nearest NSLUs, the residences to the northwest of the AMP area across Otay Valley Road, are located at an approximate distance of 2,900 feet from where the closest construction activities

would occur. Most construction associated with the proposed improvements would occur at distances much greater than 2,900 feet, as the AMP area is relatively large and improvements are proposed throughout the area; therefore, construction noise associated with the proposed AMP would not exceed 75 dBA L_{EQ} (12-hour) at residential NSLUs. Furthermore, these distances do not assume the presence of intervening topography or structures and, therefore, represent a conservative analysis. These distances also assume the use of construction equipment for each hour of a given 12-hour workday. Noise levels would be reduced if the equipment is used less than 12 hours per day. As such, noise associated with the construction of the improvements proposed under the project would be in compliance with the City Noise Ordinance, and impacts would be less than significant.

5.9.4.6 Issue 6: Vibration

Would the proposed project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

During construction, the largest potential source of vibration during project construction is anticipated to be a vibratory roller, primarily used to achieve soil, aggregate, and asphalt compaction. Vibratory rollers may be used in the construction of taxiways, runways, or tarmac. The existing on-site terminal building that has been designated as historic (ISA 2024) may be susceptible to construction vibration. A large vibratory roller is assumed to generate a vibration level of approximately 0.210 in/sec PPV at a distance of 25 feet (Caltrans 2020). If vibratory rollers are required within 12 feet of the terminal building, an exceedance of the 0.5 in/sec PPV vibration criteria for potential architectural damage to historical structures from transient sources may occur[1], and impacts would be potentially significant.

No off-site historic structures are located in the vicinity of the AMP area that would be exposed to excessive vibration. Although some vibration during construction may be perceptible to nearby off-site receptors, temporary impacts associated with the vibratory roller (and other potential equipment) would be less than significant.

5.9.5 Significance of Impacts

5.9.5.1 Ambient Noise

Noise levels associated with additional vehicle trips generated by the implementation of the AMP would not result in a doubling of traffic volumes along nearby roadways and would, therefore, not cause a 3 dBA increase in noise levels. Noise impacts related to ambient noise level increases from vehicular traffic would be less than significant.

[1] Equipment PPV = Reference PPV * $(25/D)^n$ (in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from Caltrans 2020.

5.9.5.2 Noise – Land Use Compatibility

Implementation of the proposed AMP is not expected to generate noise levels that exceed the standards established in the Noise Element of the General Plan. Impacts related to compatibility with respect to vehicular and aircraft noise would be less than significant.

5.9.5.3 Airport Noise

The land uses within the proposed AMP would be compatible with the ALUCP noise contours. Impacts related to compatibility with respect to vehicular noise would be less than significant.

5.9.5.4 San Diego Municipal Code – On-site Generated Noise

Components of the proposed AMP would either not generate operational noise or would not create substantial new non-mobile sources of noise in the AMP area, as similar uses already exist. Therefore, the proposed project would not expose off-site receptors to noise levels that would exceed property line limits established in the City Noise Ordinance, and impacts would be less than significant.

5.9.5.5 Construction Noise

Construction of improvements proposed under the AMP would require the use of diesel-powered off-road equipment that would generate noise. Based on the distance to the nearest residential NSLUs, however, construction noise would not exceed the City's 75-dBA L_{EQ} (12-hour) construction noise limit, and impacts would be less than significant.

5.9.5.6 Vibration

Vibratory rollers may be used within 12 feet of the existing terminal building, which could result in an exceedance of the 0.5 in/sec PPV vibration criteria for potential architectural damage to historical structures; therefore, impacts would be potentially significant.

5.9.6 Mitigation Framework

To reduce vibration at the vibration-sensitive historic District within the project area, mitigation measure VIB-1 would be required.

5.9.6.1 Vibration

MM VIB-1 **Construction Vibration Limits Near Historic Structures.** Vibration-generating construction equipment shall not generate vibration levels that exceed 0.5 in/sec PPV at historic structures. This shall be demonstrated by ensuring that, prior to approval, construction plans associated with future improvements specify that large vibratory rollers are to be set back from historic structures by 12 feet or be used in static mode only (no vibrations) when operating within 12 feet of historic structures or occupied residences. If vibration-generating equipment other than large vibratory rollers are used during construction, project construction plans shall include

specifications that demonstrate that vibration limits do not exceed 0.5 in/sec PPV at the historic structure or occupied residences.

5.9.7 Significance of Impacts After Mitigation

5.9.7.1 Vibration

Implementation of mitigation measure VIB-1 would reduce potential vibration-related impacts to historic on-site structures to a less-than-significant level.

5.10 Public Services and Facilities

This section of the PEIR analyzes potential impacts to public services and facilities that could result from the implementation of the AMP. Public services and facilities are those functions that serve residents on a community-wide basis and include police protection, fire/life safety protection, parks and recreation facilities, schools, and libraries.

5.10.1 Existing Conditions

The existing environmental setting, which includes a detailed discussion of existing public services and facilities within the AMP area is contained in Section 2.4.10 of this PEIR. Section 4.10 of this PEIR includes a summary of the regulatory framework relative to public services and facilities.

5.10.2 Methodology and Assumptions

Potential impacts resulting from the implementation of the proposed AMP were evaluated based on relevant information from the General Plan, SDPD, SDFD, AMP, and the adopted OMCP. Based on a review of relevant public facility and safety standards, policies, and population buildout and capacity estimates, the analysis presents the potential for impacts related to constructing facilities within the AMP area.

5.10.3 Significance Determination Thresholds

Based on the City's CEQA Significance Determination Thresholds (City 2022a), which have been adapted to guide a programmatic analysis for the proposed project, impacts on public services and facilities would be significant if the proposed project would:

1. Promote growth patterns resulting in the need for and/or provision of new or physically altered public facilities (including police protection, fire/life safety protection, parks or other recreational facilities, schools, or libraries), the construction of which could cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives.

5.10.4 Impact Analysis

5.10.4.1 Issue 1: Public Facilities

Would the proposed project promote growth patterns resulting in the need for and/or provision of new or physically altered public facilities (including police protection, fire/life safety protection, parks or other recreational facilities, schools, or libraries), the construction of which could cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives?

Police Protection

The SDPD provides law enforcement services to the AMP area. The Southern Division of the SDPD operates to maintain the citywide response time goals set forth in the General Plan (Public Facilities Element Policy PF-E.2). These response time guidelines include:

- Priority E Calls (imminent threat to life) within 7 minutes
- Priority 1 Calls (serious crimes in progress) within 12 minutes
- Priority 2 Calls (less serious crimes with no threat to life) within 30 minutes
- Priority 3 Calls (minor crimes/requests that are not urgent) within 90 minutes
- Priority 4 Calls (minor requests for police service) within 90 minutes

Implementation of the proposed AMP would involve upgrades to existing Airport facilities and the construction of 107 hangars and a maintenance building. The additional hangars would provide increased storage capacity for the Airport. These types of facilities are not anticipated to result in a substantial increase in the number of police calls for service compared to existing conditions, and no new facilities or improvements to existing facilities would be required. Therefore, the direct and indirect impacts of the proposed project on police services would be less than significant.

Fire/Life Safety Protection

SDFD Station 43 is located at 1590 La Media Road within the southeastern portion of the Airport boundary, near the intersection of La Media Road and Otay Mesa Road. As noted in Section 2.0 of this PEIR, although not a designated aircraft rescue and firefighting station for SDM, if available, the station will respond to calls at SDM. The station has one large hangar and administration building, as well as a helicopter landing area. In addition to fire protection services, the SDFD also provides EMS.

Implementation of the proposed AMP could generate an increased demand for fire and life safety services. However, the proposed AMP did not identify any deficiencies in relation to existing fire and life safety services, and it would not require the construction of new fire facilities. The proposed AMP would upgrade the existing Airport facilities and construct 107 hangars and a maintenance building. Response to calls to the AMP area for emergency fire and life safety service by SDFD Station 43 would be comparable to existing response times and would provide adequate service to the AMP area upon implementation of the AMP.

The AMP area is in a VHFHSZ with respect to wildfire. The AMP proposes the development of 107 hangars in the AMP area with pavement and structures that would replace some of the existing vegetation. This newly developed portion of the AMP area would result in reduced available fuel, thus reducing wildfire risk. In addition, future development under the AMP, including the maintenance building and 107 hangars, would be constructed per applicable California Building and Fire codes and would comply with City and SDFD requirements per the SDMC (Chapter 5, Article 5), and standard City procedures. These include SDFD approval of development plans (fire hydrant spacing, emergency vehicle access, and brush management), access to fire hydrants, and inspection of facilities prior to operation. Development would also comply with SDMC regulations specific to wildfire resistant construction and development in areas near natural vegetation (Chapter 14, Article 5). Construction and operation of developments under the proposed AMP would adhere to all

regulatory requirements including adequate fire flow, ongoing maintenance of defensible space, use of fire/wildfire resistance construction, and preparation and maintenance of a Brush Management Plan. Therefore, the direct and indirect impacts of the project on fire/life safety services would be less than significant.

Parks and Recreation/Schools/Libraries

The AMP does not propose new residential development and thus would not create an increased demand for population-based parks and recreation facilities, schools, or libraries, and does not create a need for new facilities in these resource areas. In addition, the AMP would not displace or deteriorate existing parks and recreation facilities, schools, or libraries. Therefore, implementation of the project would not result in impacts related to parks and recreation facilities, schools, or libraries.

5.10.5 Significance of Impacts

Police Protection

Implementation of the proposed AMP would not substantially increase the need for police calls for service over existing conditions, and no new facilities or improvements to existing facilities would be required. Therefore, no new construction of police facilities which could result in physical changes to the environment would occur as a result of the implementation of the proposed project. Impacts related to police services would be less than significant.

Fire/Life Safety Protection

Implementation of the proposed AMP would not substantially increase the need for fire/life safety services over existing conditions, and no new facilities or improvements to existing facilities would be required. Construction and operation of the proposed AMP would not result in an increased risk of wildfire. Therefore, no new construction of fire/life safety facilities that could result in physical changes to the environment would occur as a result of the proposed project. Impacts related to fire/life safety protection would be less than significant.

Parks and Recreation/Schools/Libraries

Implementation of the proposed project would not increase the population or result in the need for additional parks and recreation, schools, or library facilities that could result in physical changes to the environment. Therefore, impacts related to parks and recreation, schools, and libraries would not occur.

5.10.6 Mitigation Framework

Implementation of the proposed project would result in less than significant impacts to public services. No mitigation is required.

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5.11 Public Utilities

This section of the PEIR addresses potential impacts to public utilities, including those related to water supply, utility infrastructure (i.e., stormwater, sewer, and water distribution facilities), communication systems, and solid waste management, which could result from the implementation of the AMP.

5.11.1 Existing Conditions

The existing environmental setting, which includes a discussion of existing public utilities in the vicinity of the AMP area, is contained in Section 2.4.11 of this PEIR. Section 4.11 of this PEIR includes a summary of the regulatory framework relative to public utilities.

5.11.2 Methodology and Assumptions

Potential impacts resulting from the implementation of the proposed AMP were evaluated based on relevant information from the General Plan, CalRecycle, and SDCWA's UWMP.

5.11.3 Significance Determination Thresholds

Based on the City's Significance Determination Thresholds (City 2022a), as modified to guide a programmatic analysis of the proposed project, a significant public utilities impact would occur if implementation of the proposed project would:

1. Use excessive amounts of water beyond projected available supplies;

2. Promote growth patterns resulting in the need for and/or provision of new or physically altered utilities, the construction of which could cause significant environmental impacts in order to maintain service ratios, or other performance objectives; or

3. Result in impacts to solid waste management, including the need for the construction of new solid waste infrastructure including organics management, materials recovery facilities, and/or landfills; or result in a land use plan that would not promote the achievement of a 75 percent waste diversion as targeted in AB 341 and the City's CAP.

5.11.4 Impact Analysis

5.11.4.1 Issue 1: Water Supply

Would the proposed project use excessive amounts of water beyond projected available supplies?

The MWD and the SDCWA have developed water supply plans to improve reliability and reduce dependence upon existing imported supplies. MWD's RUWMP and IWRP, and the SDCWA's UWMP and annual water supply report include water infrastructure projects that meet long-term supply needs through securing water from the State Water Project, Colorado River, local water supply development, and recycled water.

The City's 2020 UWMP demonstrates that there will be sufficient water supplies available to meet demands for existing and planned future developments that are projected to occur by 2045 (City 2021). Based on a normal water supply year, the estimated water supply projected in five-year increments for a 25-year projection will meet the City's projected water demand of 202,865 AF in 2025; 210,547 AF in 2030; 217,156 AF in 2035; 223,598 AF in 2040; and 228,065 AF in 2045 (City 2021). Based on a single-dry year forecast, the estimated water supply will meet the projected water demand of 210,169 AF in 2025; 218,128 AF in 2030; 224,973 AF in 2035; 231,648 AF in 2040, and 236,274 in 2045 (City 2021). Based on a multiple-dry year, third-year supply, the estimated water supply will meet the projected demands of 210,169 AF in 2025; 218,128 AF in 2030; 224,973 AF in 2035; 231,648 AF in 2040; and 236,274 AF in 2045 (City 2021).

Most of the improvements proposed under the AMP, which include improvements related to runways, taxiways, and hangars, would not result in an increased demand for water within the AMP area. While the terminal building improvements and provision of an aircraft wash rack would result in increased water usage, the amount of water anticipated to be required for such operations would not substantially increase water demand beyond what is currently used within the Airport or beyond projected available supplies for the AMP area. As such, there is sufficient water planned to supply the annual usage for the proposed AMP, and the water demand resulting from the proposed AMP would result in no unforeseen or excessive demands.

In summary, the proposed AMP would be consistent with the water demands assumptions outlined in the City's UWMP. Current and future water supplies, as well as the actions necessary to develop these supplies, have been identified in the water resources planning documents of the PUD, the SDCWA, and MWD to serve the projected demands.

5.11.4.2 Issue 2: Utilities

Would the proposed project promote growth patterns resulting in the need for and/or provision of new or physically altered utilities, the construction of which could cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives?

The AMP area is currently served by storm water, sewer, and water infrastructure, as well as various communication systems. The current capacity for all utilities is adequate for existing demands. However, capacity improvements may be required to serve projected future demands. Systematic improvements to water, wastewater, and storm water facilities are expected to be provided as gradual replacement of aging and substandard infrastructure is needed. Upgrades such as increasing the sizing and replacement of existing water, sewer, and storm water pipelines and mains are an ongoing process. Upgrades to water and sewer are administered by the PUD and are handled on a project-by-project basis. Upgrades to and maintenance of public storm water facilities or facilities granted and accepted via easement are administered by the City's Transportation and Storm Water Department.

Storm Water

The southern portion of the AMP area is developed with impervious surfaces associated with existing buildings and runway areas. However, the remainder of the AMP area consists of natural surfaces characterized by non-native grasslands. Future development implemented under the

proposed AMP may result in an increase in impervious surfaces and has the potential to change the volumes and rates of runoff. Future projects in the AMP area would be required to adhere to NPDES requirements to control direct storm water discharges and to the City's Storm Water Standards Manual. The Storm Water Standards Manual contains requirements that dictate design elements in development and redevelopment projects. Requirements pertaining to storm water runoff include LID BMPs, such as bioretention basins, cisterns, and rain barrels, to retain storm water on-site and limit runoff. The Storm Water Standards Manual also includes HMP requirements that include design elements to limit storm water runoff discharge rates and durations.

No storm water facilities are proposed at this time in conjunction with the proposed AMP. If individual improvements initiated under the AMP required improvements to the storm drain system, they would be identified as part of the design and review process. Such future improvements would be required to comply with the requirements of applicable City standards and design guidelines.

Sewer

The AMP does not currently propose new sewer collection or wastewater treatment facilities. If individual improvements initiated under the AMP require improvements to the sewer system, they would be required to comply with the SDMC regulations regarding sewers and wastewater facilities and would be required to follow the City's Sewer Design Guidelines.

Water Facilities

Future development under the proposed AMP may result in a minimal increase in demand for water. No new water distribution or treatment facilities are proposed in conjunction with the AMP. If individual improvements initiated under the AMP require improvements to the water facilities, they would be required to comply with the City standards, including meeting any new fire flow requirements.

Communication Systems

Private utility companies currently provide communications systems within the AMP area. Future development implemented in accordance with the proposed AMP is not anticipated to result in an increased demand for new communication systems. Associated utility improvements to existing communication systems would be determined on an individual basis. As development is initiated within the Airport, coordination with communications utility providers would occur as part of the design and review process.

5.11.4.3 Issue 3: Solid Waste Management

Would the proposed project result in impacts to solid waste management, including the need for construction of new solid waste infrastructure; or result in a land use plan that would not promote the achievement of a 75 percent waste diversion as targeted in AB 341 and the City's Climate Action Plan?

CalRecycle provides estimates of solid waste generation rates for different types of land uses. Waste generation rates include all materials discarded, regardless of whether they are later recycled or

disposed of in a landfill, since under state law, the total amount of waste "generated" is considered to be the sum of the waste "disposed of" plus the waste "diverted" from disposal. Waste generation rates can be used to estimate the impact of new development on the local solid waste infrastructure, although it should be noted that impacts to solid waste infrastructure are not necessarily based on the amount of waste but on whether any increase would require the development of new facilities. Since the majority of waste is managed through waste diversion, solid waste facilities include those necessary to provide composting, recycling, and other collection, separation, and diversion services. Furthermore, it is specifically the amount of waste remaining for disposal that is considered for compliance with the City's CAP and has the greatest potential for impacts associated with GHG emissions.

Improvements within the AMP would be required to comply with City regulations, including the City's Recycling Ordinance, Demolition Ordinance, and Section 142.0801 et seq. of the LDC, which outlines the requirements for refuse and recyclable materials storage. In addition, a WMP is required for any project that exceeds the City's threshold, currently the generation of 60 or more tons of solid waste for projects of 40,000 SF or more. The WMPs would include measures to provide sufficient interior and exterior storage space for refuse and recyclable materials. The proposed AMP contains an Airport Recycling, Reuse, and Waste Reduction Plan (Appendix L of the AMP [C&S 2019]) intended to outline the existing sources of Airport waste and provide guidance on establishing a comprehensive waste reduction and recycling program.

No new solid waste disposal facilities have been identified because receiving landfills (Miramar, Otay, and Sycamore landfills) have adequate capacity. The General Plan addresses waste management in Policies PF-I.1 through PF-I.5, focusing on waste recycling and diversion of materials in PF-I.2. The proposed AMP would not affect the City's overall ability to attain a 75 percent recycling target as required under AB 341. Additionally, the City has adopted a Zero Waste Plan, which would result in 70 percent waste diversion by 2020, 90 percent waste diversion by 2035, and 100 percent diversion by 2040. Furthermore, mandatory compliance with the SDMC and the City's Recycling Ordinance would continue to reduce solid waste generation and increase recycling efforts.

5.11.5 Significance of Impacts

5.11.5.1 Water Supply

There is sufficient water supply to serve existing and projected demands associated with the implementation of the proposed AMP, and future water demands within the PUD's service area in normal and dry year forecasts during a 20-year projection. Therefore, the impacts of the proposed project on water supply would be less than significant.

5.11.5.2 Utilities

Storm Water

Upgrades to water and sewer are administered by the PUD and are handled on a project-by-project basis. Future development implemented under the proposed AMP would be reviewed by the City to determine any significant adverse effects to the City's storm water system, as well as any significant impacts associated with the installation of new storm water infrastructure, and these significant

impacts would be avoided. Therefore, impacts to storm water utilities as a result of the implementation of the proposed project would be less than significant.

Sewer

As discussed above, systematic improvements to sewer facilities are expected to be provided as gradual replacement of aging and substandard infrastructure is needed. Upgrades such as increasing the sizing and replacement of existing sewer pipelines and mains are an ongoing process. Upgrades to sewer are administered by the PUD and are handled on a project-by-project basis. Future improvements implemented under the proposed AMP would be reviewed by the City to determine any significant adverse effects to the City's wastewater system, as well as any significant impacts associated with the installation of new wastewater infrastructure, and these significant impacts would be avoided. Therefore, impacts to sewer utilities as a result of the implementation of the proposed project would be less than significant.

Water Facilities

As discussed above, systematic improvements to water facilities throughout the AMP area are expected to be provided as gradual replacement of aging and substandard infrastructure is needed. Upgrades such as increasing the sizing and replacement of existing water pipelines and mains are an ongoing process. Upgrades to water are administered by the PUD and are handled on a project-by-project basis. Future improvements implemented under the proposed AMP would be reviewed by the City to determine any significant adverse effects to the City's water distribution system, as well as any significant impacts associated with the installation of new water infrastructure, and these significant impacts would be avoided. Therefore, impacts to water utilities as a result of the implementation of the proposed project would be less than significant.

Communications Systems

No specific communications systems improvements are proposed as part of the AMP. Improvements would be determined at the project level. As individual improvements are initiated under the proposed AMP, coordination with communications utility providers would occur as part of the project design. Therefore, impacts associated with communications systems as a result of the implementation of the proposed project would be less than significant.

5.11.5.3 Solid Waste Management

It is anticipated that implementation of the proposed AMP could minimally increase the solid waste management needs within the AMP area. However, the proposed AMP would be required to comply with the SDMC, and the AMP includes an Airport Recycling, Reuse, and Waste Reduction Plan. In addition, any future development exceeding the 60-ton threshold must prepare a WMP targeting a 75 percent waste reduction. Therefore, impacts to solid waste management as a result of the implementation of the proposed project would be less than significant.

5.11.6 Mitigation Framework

Impacts associated with public utilities would be less than significant; therefore, no mitigation is required.

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5.12 Visual Effects and Neighborhood Character

This section of the PEIR discusses visual effects resulting from the implementation of the proposed AMP and the potential for impacts on neighborhood character and includes a description of the built and natural visual resources within the SDM area.

5.12.1 Existing Conditions

The existing environmental setting, which includes a detailed discussion and description of existing visual resources within the AMP area is contained in Section 2.4.12 of this PEIR. Section 4.12 of this PEIR includes a summary of the regulatory framework relative to visual resources, which describes applicable urban design guidelines, ordinances, and regulations.

5.12.2 Methodology and Assumptions

Potential visual effects and neighborhood character impacts resulting from the implementation of the proposed AMP were evaluated using information from existing conditions assessments of urban design, recreation, and conservation in the AMP area. The assessment was made using data from observations, a spatial analysis, and a photographic inventory.

5.12.3 Significance Determination Thresholds

Thresholds have been modified from the City's CEQA Significance Determination Thresholds (City 2022a) to reflect a programmatic analysis for the proposed project. Impacts related to visual effects and neighborhood character would be significant if the proposed project would:

1. Result in a substantial obstruction of a vista or scenic view from a public viewing area identified in the Otay Mesa Community Plan;

2. Result in a substantial adverse alteration (e.g., bulk, scale, materials, or style) to the existing or planned (adopted) character of the area;

3. Result in a substantial change in the existing landform;

4. Create substantial light or glare which would adversely affect daytime and nighttime views in the area; or

5. Result in the loss of any distinctive or landmark tree(s) or stand of mature trees as identified in the Otay Mesa Community Plan.

5.12.4 Impact Analysis

5.12.4.1 Issue 1: Scenic Vistas or Views

Would implementation of the proposed project result in a substantial obstruction of a vista or scenic view from a public viewing area identified in the OMCP?

SDM lies within the planning boundaries of the OMCP. The OMCP does not identify any scenic vistas within the boundaries of the entire community. However, the OMCP does identify public viewpoints, some of which are in the vicinity of the Airport; these include view corridors along public roadways and designated open space areas. Specifically, the OMCP identifies view corridors that are situated around the perimeter of SDM adjacent to Otay Mesa Road and along the interface of the SDM property and the designated open space north of the airfield. These view corridors are grouped into two categories as defined by the OMCP: (1) views through the industrial/ commercial lands along Otay Mesa Road, which forms the southern perimeter of SDM; and (2) views from SDM into the Otay Valley Regional Park, north of the airfield. The AMP does not involve any of the SDM property located adjacent to either Otay Mesa Road or the northern perimeter of the property, as these lands are part of the leasehold associated with the Metropolitan Airpark. Consequently, the AMP does not propose any improvements in these areas (see Figure 3-1).

Additionally, AMP development would occur entirely within the boundaries of SDM and would be a continuation of the existing land use pattern. Airside improvements include the redesign and upgrades to the pavement, runways, taxiways, navigational features, etc. Structural landside improvements are clustered in the southern portion of the AMP and include additional hangars, a new maintenance building, and potential improvements to the terminal building and original ATCT. Any building associated with the AMP would be required to meet the FAA guidelines, which restrict structure height within the AMP to a maximum of 35 feet. Thus, no new structures would be introduced that would obstruct any views into or across the AMP area.

Therefore, since the AMP area does not include any scenic vistas, does not include any development within or adjacent to a view corridor, or introduce any structures that would disrupt the existing views into or across the AMP, the project would have a less than significant impact with regard to a substantial obstruction of a vista or scenic view from a public viewing area, including view corridors.

5.12.4.2 Issue 2: Neighborhood Character

Would implementation of the proposed project result in a substantial alteration (e.g., bulk, scale, materials or style) to the existing or planned (adopted) character of the area?

The AMP is within the planning boundaries of the OMCP. As shown in the existing land use plan and the vision plan in the OMCP, SDM is surrounded by lands that are designated for light and heavy industrial land uses and industrial centers. The bulk, scale, and materials of the current structures surrounding the AMP are limited by the FAA guidelines that restrict structure height to a maximum of 35 feet and the use of reflective or glare-producing materials for buildings within the AIA. Similarly, the FAA guides the bulk, scale, and materials for structures that are within the AMP.

Implementation of the AMP would occur entirely within the existing boundaries of SDM, which has operated as a general aviation airport since 1962. The AMP includes a combination of airside and landside components: 107 new hangars, potential improvements to the terminal building and original ATCT, an aircraft wash rack, 83 new automobile parking spaces, and the reconfiguration of several taxiways. These improvements, modifications, and reconfigurations are consistent with the existing airfield land uses and visual elements.

The proposed AMP would construct a total of 107 hangars, with 71 to the west, 23 in the center, and 13 to the east. The proposed hangars would not exceed 35 feet in height and would be consistent with the character and style of the existing Airport hangars. The proposed maintenance building would not exceed one story in height and would retain a style and mass consistent with the surrounding development. In addition, any improvements proposed for the terminal building, including retrofits and expansions, would need to comply with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties, as specified in Section 3.4.2. All other improvements associated with the implementation of the AMP, such as pavement maintenance and the installation of wash racks, would not change the existing visual environment.

The introduction of similar elements would be visually compatible with the existing neighborhood character. The AMP would be implemented over three phases spanning 20 years. The first phase would consist of the runway and taxiway improvements and reconfigurations, which would improve airside operations to meet FAA criteria. The second phase would be a continuation of the airside improvements and the introduction of some of the landside improvements, including potential additions to the terminal and maintenance facility. The last phase would include the new hangars and wash rack, as well as associated roadway demolition and realignment. Given that development associated with the project would occur on lands that currently and historically have supported aviation uses and it would occur gradually over a 20-year period, impacts related to substantial alterations to the existing or planned character of the area would be less than significant.

5.12.4.3 Issue 3: Landform Alteration

Would the proposed project result in a substantial change in the existing landform?

The topography of the southern portion of the Airport is generally flat. The most substantial change in elevation is in the northern portion of the airfield, where three canyons cut into the mesa, sloping downward towards the Otay River, which is located offsite to the north. The Airport ranges in elevation from approximately 510 above mean sea level (AMSL) to 525 AMSL throughout most of the property and does not contain any prominent landforms.

Future development in accordance with the proposed AMP would not result in substantial landform alteration. The airside and landside improvements would occur within the existing footprint of SDM, which has been previously mass-graded in conjunction with the long history of aviation operations at the site. Some minor cut and fill and site grading would occur with the various improvements and reconfigurations; however, given the developed nature of the AMP area, the relatively level site conditions, and the lack of significant landform, development associated with the project would have a less than significant impact on landform alteration.

5.12.4.4 Issue 4: Light and Glare

Would the proposed project create substantial light or glare which would adversely affect daytime or nighttime views in the area?

The FAA has regulations pertaining to minimizing light and glare and the airport lighting scheme is required to be in conformance with FAA lighting standards. Presently the Airport has safety and navigational lighting along the airside facilities as well as other exterior sources of light such as parking lot and vehicle lighting, security lighting, and landscape lighting. Light also emanates from the interior of the terminal and hangars. In addition to light sources currently generated by the Airport, several of the surrounding land uses support streetlights along roadways and parking lots, illuminated signs, landscape and security lighting, and light emitted from the interiors of the non-residential buildings.

As discussed in Chapter 2.0 of this PEIR, current facilities at SDM produce light. Both airside and landside activities associated with the AMP would modify the existing lighting environment at SDM. Navigational and safety lighting would be altered in conjunction with the reconfiguration of the taxiways. These sources of light would be similar in nature as to what presently exists and would be designed to meet the FAA safety regulations but not to intrude upon neighboring land uses.

As the new hangars become operational in the later phases of the AMP, nighttime security lighting as well as light emanating from inside the new buildings would contribute additional sources of light to the AMP area. Additional lighting would also be provided in conjunction with the parking expansion. However, this lighting would be directed towards on-site AMP activities to avoid spillover onto adjacent land uses. Consistent with the existing hangars, new hangars would not be built with expanses of reflective materials producing glare, which typically include window glass, solar panels, and certain types of metal); in addition to visual impacts this would be a hazard to aviation operations. SDM would be required to file a Notice of Proposed Construction or Alteration Form 7460-1 that includes a statement that the project would not cause a visual impact, including related to glare. The form would be reviewed and approved by the FAA. In addition to regulating the airside lighting components, the FAA regulates the location, type, and height of all landside light sources. The additional landside light sources would be low-intensity, shielded, and directional/downcast. The area already has similar lighting to the surrounding industrial and commercial buildings and there are no residential uses adjacent to the site (the nearest residences are located approximately 2,000 feet northwest of the AMP area's western boundary).

The Airport would be required to comply with applicable regulations as set forth in the SDMC (Sections 142.0730 and 142.0740). SDMC Section 142.0730 regulates glare and mandates that no greater than 50 percent of the exterior of a building be composed of reflective material that has a light reflectivity factor greater than 30 percent. Additionally, pursuant to SDMC Section 142.0730(b), reflective building materials are not permitted where the City Manager determines that their use would contribute to potential traffic hazards, diminished quality of riparian habitat, or reduced enjoyment of public open space. Lighting impacts to MHPA areas would be regulated through compliance with MHPA Land Use Adjacency Guidelines, which requires lighting of all developed areas adjacent to the MHPA to be directed away from the MHPA. However, as noted in Section 5.2, the AMP does not include lighting adjacent to the MHPA.

The purpose of the City's outdoor lighting regulations (SDMC Section 142.0740) is to minimize negative impacts from light pollution, including light trespass, glare, and urban sky glow, to preserve enjoyment of the night sky and minimize conflict caused by unnecessary illumination. Regulation of outdoor lighting is also intended to promote lighting design that provides for public safety and conserves electrical energy. New outdoor lighting fixtures must minimize light trespass in accordance with the Green Building Regulations, where applicable, or otherwise direct, shield, and control light to keep it from falling onto surrounding properties. The City's regulations prohibit direct-beam illumination from leaving the premises and require that most outdoor lighting be turned off between 11:00 p.m. and 6:00 a.m., with some exceptions (such as lighting provided for commercial and industrial uses that continue to be fully operational after 11:00 p.m., for public safety).

Lighting and glare restrictions are also contained in the SDM ALUCP. Section 2.6.2(a)(2)(iii) of the SDM ALUCP requires ALUC review of projects within Review Area 2 that would have the potential to create electrical or visual hazards to aircraft in flight, including electrical interference with radio communications or navigational signals; lighting which could be mistaken for airport lighting; glare or bright lights (including laser lights) in the eyes of pilots or aircraft using the airport; certain colors of neon lights (especially red and white) that can interfere with night vision goggles; and impaired visibility near the airport. Additionally, Section 3.5.5 (a)(1) of the SDM ALUCP regulates potential sources of glare (such as from mirrored or other highly reflective buildings or building features) or bright lights (including searchlights and laser light displays).

Through compliance with existing development standards and regulations pertaining to lighting and glare contained in the City's SDMC, MHPA Land Use Adjacency Guidelines, and the SDM ALUCP, impacts related to light and glare would be less than significant.

5.12.4.5 Issue 5: Loss of Distinctive or Landmark Trees

Would the proposed project result in the loss of any distinctive or landmark tree(s), or stand of mature trees as identified in the Otay Mesa Community Plan?

No designated distinctive or landmark trees or mature stands of trees occur within the AMP area. While some street trees are present along the roadway corridors within the AMP area, the proposed AMP would be subject to City Council Policy 900-19, Public Tree Protection, which provides for the protection of street trees. Additionally, the OMCPU includes policies within the Urban Design section that promote the planting of new trees along streets and in public spaces (4.8-1, 4.8-2, and 4.8-3). Impacts related to the loss of distinctive or landmark trees would be less than significant.

5.12.5 Significance of Impacts

5.12.5.1 Scenic Vistas or Views

Implementation of the AMP would not result in substantial alteration or blockage of public views or scenic highways from view corridors, designated open space areas, public roads, or public parks. Therefore, impacts related to scenic vistas or views would be less than significant.

5.12.5.2 Neighborhood Character

The AMP would result in improvements, modifications, and reconfigurations of existing SDM land uses. No new uses would be introduced, although some new buildings would be constructed. All development associated with the AMP would take place within the existing footprint that supports aviation land uses. The AMP would allow for the continuation of the existing land uses to meet FAA design requirements and projected demand. Thus, impacts related to substantial alterations to the existing or planned character of the area would be less than significant.

5.12.5.3 Landform Alteration

Development in accordance with AMP would not result in substantial landform alteration because the AMP area is developed with existing aviation land uses that are concentrated on level terrain devoid of any prominent landforms. While some minor grading may occur to support AMP activities, no significant cuts and fills or mass grading would need to occur. Thus, impacts related to landform alteration would be less than significant.

5.12.5.4 Light and Glare

The AMP would introduce new sources of light as required to meet the FAA regulations. Landside components would also be subject to FAA guidelines as well as the City's guidelines as outlined in the SDMC. With adherence to the City's outdoor lighting and glare regulations, the MHPA Land Use Adjacency Guidelines, and SDM ALUCP lighting and glare regulations, impacts associated with lighting and glare would be less than significant.

5.12.5.5 Loss of Distinctive or Landmark Trees

No designated distinctive or landmark trees or mature stands of trees occur within the AMP area. The proposed AMP would be consistent with the OMCPU tree policies and subject to City Council Policy 900-19, which provides for the protection of street trees. Therefore, impacts related to the loss of distinctive or landmark trees would be less than significant.

5.12.6 Mitigation Framework

Potential impacts associated with scenic vistas or views, neighborhood character, landform alteration, light and glare, and the loss of distinctive or landmark trees resulting from the implementation of the proposed project would be less than significant; therefore, no mitigation is required.

6.0 CUMULATIVE IMPACTS

Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." These individual effects may entail changes resulting from a single project or from a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects occurring over a period of time.

Section 15130 of the CEQA Guidelines requires that an EIR discuss the cumulative impacts of a project when the project's incremental effect would potentially be cumulatively considerable. Cumulatively considerable, as defined in Section 15065(a)(3), means that the incremental effects of the individual project are considerable when viewed in connection with the effects of past projects, other current projects, and the effects of probable future projects. Where a lead agency determines the project's incremental effect would not be cumulatively considerable, a brief description of the basis for such a conclusion must be included. In addition, the CEQA Guidelines allow for a project's contribution to be rendered less than cumulatively considerable with the implementation of appropriate mitigation.

According to Section 15130(b) of the CEQA Guidelines, the discussion of cumulative impacts "…need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness." Additionally, one of the following two possible approaches is required for considering cumulative effects:

- A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, which described or evaluated region- 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.

Pursuant to Section 15130(d), cumulative impact discussions may rely on previously approved land use documents such as general plans, specific plans, and local coastal plans, and may be incorporated by reference. In addition, no further cumulative impact analysis is required when a project is consistent with such plans, and the lead agency determines that the regional or area-wide cumulative impacts of the project have already been adequately addressed in a certified EIR for that plan.

The basis and geographic area for the analysis of cumulative impacts is dependent on the nature of the issue and the project. For impacts that are regional in nature, such as air quality and GHG, the primary basis for assessing cumulative impacts are standards set by the SDAPCD and the state of California. For the analysis of impacts that are more localized in nature (biological resources; geology and soils; historical, archaeological and tribal cultural resources; human health, public safety, and hazardous materials; hydrology and water quality; land use; noise; public services and

facilities; public utilities; and visual effects and neighborhood character), the assessment of cumulative impacts is based on the combined potential impacts of the proposed AMP with the following three projects, based on proximity to the AMP area:

1. MAP project (City 2013) (both projects would be implemented within the Airport property boundary)

2. Utilities Underground Program Master Plan (City 2017) (both projects would be implemented within the Airport property boundary)

3. Prologis Development Project (City 2016) (project would be located adjacent to the western Airport boundary, on the west side of Heritage Road)

6.1 Air Quality

The analysis provided in Section 5.1, *Air Quality*, is a cumulative analysis by nature because it discusses the proposed AMP's consistency with the air quality plan for the SDAB (i.e., the RAQS), which relies on the land use plans of jurisdictions within the SDAB. As discussed in Section 5.1, implementation of the proposed AMP would not generate air emissions that would exceed the thresholds of significance. These thresholds are designed to identify those projects that would result in significant levels of air pollution, and to assist the region in attaining the applicable NAAQS or CAAQS. Thus, the implementation of the project would not result in an increase of emissions that would conflict with the implementation of the air quality plan, and cumulative air quality impacts resulting from the implementation of the project would be less than significant and not cumulatively considerable.

6.2 Biological Resources

Projects that adhere to the MSCP SAP are not expected to have significant cumulative impacts to resources covered and regulated by the MSCP SAP. Impacts related to the AMP are limited to areas entirely outside of the MHPA boundaries and occur in developed, disturbed, non-native grassland habitat. The AMP complies with the MSCP SAP (including Biology Guidelines and ESL Regulations), the MHPA Land Use Adjacency Guideline requirements, and the VPHCP avoidance/mitigation measures. Therefore, cumulative impacts related to compliance with conservation plans would be less than significant and not cumulatively considerable.

The MAP EIR identified cumulatively significant impacts associated with direct impacts to 235.72 acres of suitable BUOW habitat (non-native grassland and disturbed land) and BUOWs (nine nesting pairs and two individuals) and required mitigation for impacts for the loss of BUOW habitat. The MAP EIR concluded that the project would have cumulatively significant impacts to BUOW habitat. In addition, there is potential that work done at the Airport as part of the Utilities Underground Program could occur in suitable BOUW habitat. Therefore, regional cumulative impacts associated with BUOW habitat are assumed to be significant. The proposed project would result in the permanent removal of 7.2 acres of non-native grassland, and the temporary removal of 5.4 acres of non-native grassland (12.6 acres in total). Compared to the combined impact of both projects, the proposed AMP would result in a relatively small amount of habitat loss. Upon implementation of the

previously identified mitigation measures, BIO-1 through BIO-7, the project's contribution would not be cumulatively considerable.

In addition, the project would not result in cumulative impacts to jurisdictional resources or wildlife movement because there are no regionally identified wildlife corridors or habitat linkages within the AMP area. Therefore, the project would not contribute to a cumulatively considerable impact.

6.3 Geology and Soils

Cumulative impacts related to geologic hazards within the project area would be less than significant upon compliance with applicable regulatory/industry standards and codes, including the CBC and SDMC. Development of the proposed project would not compound or worsen potential geologic hazards. Geologic hazard conditions are site-specific and do not compound or increase in combination with projected development elsewhere. Thus, as the proposed project would be required to comply with the SDMC and CBC, cumulative impacts related to geologic hazards would be less than significant and not cumulatively considerable.

6.4 Greenhouse Gas Emissions

The impact analysis discussed in Section 5.4, *Greenhouse Gas Emissions*, is a cumulative analysis by its nature because GHG emissions are a cumulative issue caused by global GHG emissions and not an individual project. Cumulatively, there exists a significant impact related to GHG emissions at the global level. However, the proposed project's contribution to the cumulative impact from GHG emissions would be less than cumulatively considerable with the implementation of MM GHG-1 and MM GHG-2, which would ensure that the proposed AMP is consistent with the goals and strategies of the City's CAP. Thus, cumulative impacts related to conflicts with GHG plans and policies would be less than significant with mitigation and not cumulatively considerable.

6.5 Historical, Archaeological, and Tribal Cultural Resources

As stated in Section 5.5, *Historical, Archaeological, and Tribal Cultural Resources*, the proposed project would potentially result in significant impacts to historical and archaeological resources.

As noted in Section 3.0, *Project Description*, because the terminal building, including the original ATCT, has been determined to be eligible for listing in the SDRHR, the CRHR, and the NRHP, proposed rehabilitation work for the terminal building would need to comply with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties. This requirement is also stated in mitigation measure MM HIST-1. Implementation of MM HIST-2 and MM HIST-3 would ensure that any other cumulative impacts related to historic and archaeological resources would remain less than significant.

The MAP EIR concluded that direct and cumulative impacts related to historical resources would be less than significant with the implementation of measures designed to preserve these resources. Therefore, cumulative impacts are considered to be less than significant and not cumulatively

considerable with the implementation of mitigation measures included for the AMP and MAP project EIRs.

6.6 Human Health, Public Safety, and Hazardous Materials

As discussed in Section 5.6, *Human Health, Public Safety, and Hazardous Materials*, compliance with federal, state, regional, and local health and safety laws and regulations would address potential health and safety impacts. Potential health and safety impacts associated with wildfires, hazardous substances, emergency response and evacuation plans, and aircraft hazards would not combine to create cumulative impacts when viewed together with the potential growth that could occur within the surrounding community of Otay Mesa. Wildfire impacts would be limited because the proposed AMP would be subject to the City's Brush Management regulations and the City's Fire Code requirements. Similarly, potential hazards associated with hazardous material sites are site-specific and would not combine with hazards in other areas to create a cumulative impact. Furthermore, development associated with the proposed AMP would be subject to safety compatibility and airspace protection criteria, as well as applicable sections of the SDMC. Also, the MAP EIR and Prologis Development Project Mitigated Negative Declaration (MND) did not identify cumulatively considerable impacts related to human health and public safety. Therefore, cumulative impacts related to Human Health, Public Safety, and Hazardous Materials would be less than significant and not cumulatively considerable.

6.7 Hydrology and Water Quality

Improvements associated with the proposed AMP would be required to comply with applicable NPDES permit requirements, including the development of a SWPPP if the disturbed area covers one acre or more, or a Water Quality Control Plan if the disturbed area is less than one acre. Future development would also be required to follow the City's Storm Water Standards Manual for drainage design and BMPs for treatment. Further, the MAP EIR and Prologis Development Project MND did not identify cumulatively considerable impacts related to hydrology. Therefore, cumulative impacts related to Hydrology and Water Quality would be less than significant and not cumulatively considerable.

6.8 Land Use

As discussed in Section 5.8, *Land Use*, the AMP is consistent with citywide zone classifications, in accordance with the goals of the General Plan and the regulations in the SDMC. The proposed AMP would continue to foster the existing land uses and pattern of growth at SDM. Development implemented in accordance with the AMP would not result in conflicts with the City's ESL Regulations or CAP. Additionally, as discussed in Section 5.2 of this PEIR, the AMP is consistent with the MSCP SAP and the VPHCP. Moreover, implementation of the AMP occurs entirely within the current airport boundaries. Cumulative impacts associated with consistency with the City's General Plan and OMCP would be less than significant and not cumulatively considerable.

6.9 Noise

Non-flight noise impacts associated with the implementation of the proposed AMP would be localized in nature, and noise from aircraft operations would not substantially change relative to baseline conditions. Furthermore, land uses within the vicinity of the AMP area would also be subject to the General Plan policies, noise ordinance requirements, and Title 24 standards discussed in this PEIR. The MAP EIR concluded that cumulative noise impacts to the region would not be significant. Thus, cumulative noise impacts associated with ambient noise increases, stationary noise, construction noise, and vibration would be less than significant and not cumulatively considerable.

6.10 Public Services and Facilities

6.10.1 Police Protection

Impacts resulting from the construction and operation of the proposed AMP may result in a cumulative effect on police services when combined with regional growth. The proposed AMP is in an area that charges impact fees to address cumulative impacts. The proposed AMP would be required to contribute its fair share toward the cost of future police facilities. Therefore, the proposed project would have a less than cumulatively considerable impact on police protection.

6.10.2 Fire/Life Safety Protection

Project impacts resulting from the construction and operation may result in a cumulative effect on fire/life safety services when combined with regional growth. The proposed AMP is in an area that charges impact fees to provide for future fire/life safety facilities. Upon payment of applicable impact fees, the proposed project would have a less than cumulatively considerable impact on fire/life safety protection.

6.10.3 Parks and Recreation/Schools/Libraries

Implementation of the proposed project would not increase the population or result in the need for additional parks and recreation, schools, or library facilities that could result in physical changes to the environment. Therefore, the project would not contribute to cumulative impacts associated with schools, libraries, parks, or recreation.

6.11 Public Utilities

6.11.1 Water Supply

As discussed in Section 5.11, *Public Utilities*, there is sufficient water supply to serve existing and projected demands associated with the implementation of the proposed AMP. Furthermore, current and future water supplies, as well as the actions necessary to develop these supplies, have been identified in the water resources planning documents of the PUD, the SDCWA, and MWD to serve

the projected demands of the AMP area, in addition to existing and planned future water demand of the City.

The MAP EIR and Prologis Development Project MND concluded that impacts associated with water supply would not be significant. The MAP EIR included a water supply assessment that demonstrated that the water supply/demand projections would meet or exceed all pertinent requirements related to water supply/demand, and water conservation and recycled water use; would conform with all criteria regarding water infrastructure design/operation; and would not require the construction of any off-site water facilities. Future projects would also be required to demonstrate the above-mentioned criteria related to water supply and demand. Based on the described conditions and assumptions, potential cumulative impacts related to water supply/conservation from the implementation of the project would be less than significant and not cumulatively considerable.

6.11.2 Utilities

The AMP area is currently served by storm water, sewer, and water infrastructure, as well as various communication systems. The current capacity for all utilities is adequate for existing demands; however, capacity improvements may be required to serve projected future demands. Upgrades to water and sewer are administered by the PUD and are handled on a project-by-project basis. Upgrades to and maintenance of public storm water facilities or facilities granted and accepted via easement are administered by the City's Stormwater Department. Therefore, improvements associated with the proposed AMP would be reviewed by the City to determine any significant adverse effects to the City's storm water system, as well as any significant impacts associated with the installation of new storm water infrastructure, and these significant impacts would be avoided. The MAP EIR concluded that cumulative impacts to utilities would be less than significant. Therefore, cumulative impacts related to utilities would be less than significant and not cumulatively considerable.

6.11.3 Solid Waste Management

The proposed AMP would generate solid waste through demolition/construction activities and ongoing operations that would increase the amount of solid waste generated within the region. However, the proposed AMP would be required to comply with the SDMC and General Plan policies promoting waste diversion to preserve the City's solid waste capacity. If demolition/construction activities generate 60 tons of waste or more, improvements associated with the AMP would be required pursuant to the City's CEQA Significance Determination Thresholds (City 2022a) to develop and implement a WMP targeting 75 percent waste diversion. Further, the Airport would implement a Solid Waste Reduction Plan to ensure that activities would contribute to meeting the City's goals for solid waste reduction. Therefore, cumulative solid waste management impacts would be less than significant and not cumulatively considerable.

6.12 Visual Effects and Neighborhood Character

The AMP lies within the planning boundaries of the OMCP, which does not identify any scenic vistas within the boundaries of the entire OMCP area. However, the OMCP does identify public viewpoints, some of which are in the vicinity of the AMP area. Visual changes associated with the project could

result in a cumulative effect on visual resources when combined with other past, present, or reasonably foreseeable future actions. Impacts related to Visual Effects and Neighborhood Character in the MAP EIR are considered significant and unavoidable because the MAP development would partially block views of Brown Field, the distant mountain ranges, and the sky along Otay Mesa Road. The analysis concluded that close-range views from adjacent roads would be blocked and that the impact cannot be mitigated to a less than significant level.

The visual impacts associated with the AMP are analyzed in Section 5.12, *Visual Effects and Neighborhood Character*. The analysis concluded that implementation of the AMP would not result in the substantial alteration or blockage of public views or scenic highways from view corridors, designated open space areas, public roads, or public parks. Furthermore, development would be required to be consistent with the General Plan and OMCP, as well as comply with SDMC regulations, including those related to community design and aesthetics. Therefore, impacts would be less than significant, and the proposed project's contribution would not be cumulatively considerable.

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7.0 OTHER MANDATORY DISCUSSION AREAS

This section of the PEIR presents a summary of growth-inducing impacts, effects found not to be significant, significant and unavoidable impacts, and significant irreversible environmental changes that could result from the implementation of the project. These findings are based in part on the analysis provided in Chapter 5, *Environmental Analysis*.

7.1 Growth Inducement

Section 15126.2(d) of the CEQA Guidelines requires that EIRs include an evaluation of potential growth inducement impacts to "Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." This can include projects that remove obstacles to population growth, such as through the provision of expanded public utility capacity that may allow additional construction in the associated service area (e.g., the major expansion of a wastewater treatment plant). The referenced CEQA Guidelines section also notes that "It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The City's CEQA Significance Determination Thresholds (City 2022a) provide additional direction on this issue, noting that growth inducement:

> …is usually associated with those projects that foster economic or population growth, or the construction of additional housing, either directly or indirectly which may result in the construction of major and new infrastructure facilities. Also, a change in land use policy or projects that provide economic stimulus, such as industrial or commercial uses, may induce growth. Accelerated growth may further strain existing community facilities or encourage activities that could significantly affect the surrounding environment.

The City's Significance Determination Thresholds (City 2022a) also state that "the analysis must avoid speculation and focus on probable growth patterns or projects." The proposed AMP is a decision-making tool intended to complement other local and regional plans to provide a strategic development plan based on forecasted Airport activity within the 20-year planning period (through 2037). Implementation of the proposed AMP would address current airside facility safety and configuration concerns and provide required facility and infrastructure upgrades to the Airport to accommodate projected Airport demand. Because the AMP is proposed in response to projected growth and demand, it would not promote or encourage economic or population growth. In addition, the proposed AMP would not introduce new housing or otherwise directly result in population growth.

7.2 Effects Found Not to Be Significant

CEQA Guidelines Section 15128 requires that an EIR contain a brief statement disclosing the reasons why various possible significant effects of a project were found not to be significant and therefore were not discussed in detail in the EIR. The impacts associated with the following environmental issue areas were found to not be significant as a result of the implementation of the proposed AMP:

Agriculture and Forestry Resources, Energy, Mineral Resources, Paleontological Resources, Population and Housing, Transportation and Circulation, and Wildfire.

7.2.1 Agriculture and Forestry Resources

Based on farmland mapping prepared by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (DOC 2022), the AMP area is not identified as containing Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The AMP area is classified by the DOC as Urban and Built-Up Land, Farmland of Local Importance, and Other Land. The land within the AMP area designated as Farmland of Local Importance is not currently used for agricultural purposes and is not zoned for agricultural use (the entire AMP area is considered Unzoned). Implementation of the AMP also would not result in the conversion of this land. In addition, there is no forestland within the AMP area or immediate vicinity that would conflict with the proposed AMP. Therefore, the implementation of the proposed AMP would not result in the loss or conversion of farmland or forestland. No impact to agricultural or forestry resources would occur.

7.2.2 Energy

7.2.2.1 Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources

Construction-related Energy Use

During the construction of future airport improvements associated with the implementation of the proposed AMP, there would be a temporary consumption of energy resources required for the movement of equipment and materials; however, the duration is limited due to the phasing of construction, and the area of construction is minimal. Compliance with local, state, and federal regulations (e.g., limit engine idling times, require the recycling of construction debris, etc.) would reduce short-term energy demand during construction to the extent feasible, and construction would not result in a wasteful or inefficient use of energy. Construction equipment energy consumption would be typical of similar projects requiring the use of gasoline or diesel. There are no known conditions associated with implementation of the AMP that would require non-standard equipment or construction practices that would increase fuel-energy consumption above typical rates. Therefore, the implementation of the proposed AMP would not result in the use of wasteful amounts of fuel or other forms of energy during construction. Impacts would be less than significant.

Operation-related Energy Use

Buildings and hangars constructed under the proposed AMP would be required to use electricity to run various fixtures and equipment. During operation, there are no unusual characteristics or processes that would require the use of equipment that would be more energy intensive than is currently used, or the use of equipment that would not conform to current emissions standards and related fuel efficiencies. Furthermore, through compliance with applicable regulations (e.g., 2022 CCR. Title 24, Part 6–Energy Efficiency Standards), as well as the City's CAP, individual improvements implemented under the proposed AMP would be consistent with state and local energy reduction policies and strategies and would not consume energy resources in a wasteful or inefficient manner. There are no improvements associated with the implementation of the proposed AMP that would

support the use of excessive amounts of energy or would create unnecessary energy waste. Impacts would be less than significant.

7.2.2.2 Conflicts with Adopted Plans

The proposed AMP would comply with the goals and policies intended to support the General Plan and CAP policies aimed at reducing energy consumption. The proposed AMP retrofits associated with the existing buildings could improve Airport energy efficiency through compliance with CALGreen and Title 24 standards. Therefore, impacts would be less than significant.

7.2.3 Mineral Resources

According to the California Geological Survey (CGS) Special Report 153 (CGS 2017), areas classified as Mineral Resource Zone 1, 2, 3, and 4 (MRZ-1 through MRZ-4) have been mapped for the City of San Diego. These categories are described as follows:

- **MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or areas where well-developed lines of reasoning, based upon economic-geologic principles and adequate data, demonstrate that the likelihood for the occurrence of significant mineral deposits is high.
- **MRZ-3:** Areas containing mineral occurrences of undetermined mineral resource significance.
- **MRZ-4:** Areas where available information is inadequate for assignment to any other MRZ category.

The AMP area is classified as MRZ-3 (CGS 2017). Furthermore, the AMP area is located within a developed area, and no mineral extraction/production uses currently exist within the AMP boundaries or the surrounding areas. Implementation of the proposed AMP would not affect or result in the loss of mineral resources, nor would it result in the loss of availability of a locally important mineral resource recovery site delineated on a local or general plan. Therefore, no impact to mineral resources would occur.

7.2.4 Paleontological Resources

Paleontological resources, or fossils, are the buried remains or traces of prehistoric organisms. The potential for paleontological resources at a location can be predicted through previous correlations that have been established between fossil occurrence and the geologic formations within which they are buried. For this reason, knowledge of the geology of a particular area and the paleontological resources sensitivity of particular formations makes it possible to predict where fossils may or may not be encountered. This analysis is based on a review of the Geologic Map of the San Diego Quadrangle (Kennedy and Tan 2002) and the City's CEQA Significance Determination Thresholds (City 2022a).

Underlying geologic formations within the AMP area include the San Diego Formation, Lindavista Formation, Otay Formation, and artificial fill (refer to Figure 2-8). The San Diego and Otay Formations are characterized with a high paleontological resource sensitivity rating, and the Lindavista Formation is characterized with a moderate paleontological resource sensitivity rating. Artificial fill is considered to have no potential for paleontological resources.

Future development implemented under the proposed AMP that requires grading or excavation into underlying geologic formations with moderate to high paleontological potential could expose and destroy paleontological resources if the fossil remains are not recovered and salvaged. Grading activities associated with future development under the proposed AMP could potentially result in earthwork greater than 1,000 cubic yards in quantity and extending to a depth of 10 feet or greater into high-sensitivity paleontological geological units, such as the San Diego and Otay Formations; or earthwork greater than 2,000 cubic yards in quantity within moderate sensitivity paleontological geological units, such as the Lindavista Formation.

Pursuant to SDMC Section 142.0151, all future development is required to screen for grading quantities and geologic formation sensitivity and apply the appropriate requirements for paleontological monitoring. Paleontological monitoring is required for grading that extends 10 feet or greater in depth and involves 1,000 cubic yards or more within high-sensitivity paleontological geological units and/or 2,000 cubic yards or more within moderate-sensitivity paleontological geological units, grading on a fossil recovery site, or grading within 100 feet of the mapped location of a fossil recovery site. Regulatory compliance for future discretionary projects reviewed in accordance with CEQA would be assured through permit conditions, when applicable or as notes on plans, and would be adequate to preclude impacts to paleontological resources. Implementation of the General Grading Guidelines for Paleontological Resources, as required by SDMC Section 142.0151, would ensure that impacts to paleontological resources would be less than significant.

7.2.5 Population and Housing

No residential housing currently exists within the Airport and the proposed AMP would not introduce new housing. In addition, housing is precluded from the Airport per Section 3.4.4 of the Brown Field Municipal Airport ALUCP. As such, the proposed AMP would not generate population growth, nor would it displace people or existing housing. Therefore, no impact on population and housing would occur.

7.2.6 Transportation

The rehabilitated terminal building and new maintenance building are not anticipated to result in a substantial number of additional airport visitors or employees. However, additional vehicles traveling to and from the Airport are anticipated from the construction of 107 new T-hangars. It is also conservatively assumed that additional support staff would be required for the additional hangars and associated flight operations. Trip generation for the proposed AMP was estimated by first determining a trip generation per flight and per employee based on existing airport operations. These rates were then multiplied by the total projected number of flights and employees under the buildout of the AMP. At buildout, the AMP is forecasted to generate 231 new daily vehicle trips over existing conditions (CR Associates 2024; Appendix I). In accordance with the City's Transportation Study Manual (City 2022d), the AMP can be screened out from conducting a detailed VMT analysis since it is considered a small

project generating fewer than 300 daily trips. Similarly, the AMP can be screened out from conducting a local mobility analysis since it is consistent with the community plan/zoning designation and generates less than 1,000 daily trips (CR Associates 2024). As such, impacts transportation-related impacts would be less than significant.

7.2.7 Wildfire

The AMP area is located within a Very High Fire Hazard Severity Zone (City 2009). Future development or activity under the proposed AMP could potentially be at risk from exposure to wildland fires. Such development, however, would be subject to applicable state and City regulatory requirements related to fire hazards and prevention. Specifically, these encompass standards associated with vegetative (brush) management, such as selective removal/thinning and fire-resistant plantings to create appropriate buffer zones around development, as well as incorporating applicable fire-related design elements, including fire-resistant building materials, fire/ember/smoke barriers, automatic alarm and sprinkler systems, and provision of adequate fire flow and emergency access. These requirements would be implemented as part of individual improvements associated with the AMP. Overall, the improvements proposed under the AMP would not substantially increase the risk of wildland fires at the Airport over existing conditions based on the similarity of the proposed uses to existing uses. In addition, the AMP area would continue to be serviced by SDFD Station 43, which is located within the Airport boundary. Therefore, impacts associated with wildfire hazards would be less than significant.

7.3 Unavoidable Significant Environmental Impacts

In accordance with CEQA Guidelines Section 15126.2(c), an EIR must discuss any significant unavoidable impacts of a project, including those impacts that can be mitigated, but not reduced to below a level of significance. All potentially significant impacts identified in Chapter 5 can be reduced to below a level of significance through regulatory compliance or implementation of the mitigation framework.

7.4 Significant Irreversible Environmental Changes

Section 15126.2(d) of the CEQA Guidelines requires an evaluation of significant irreversible environmental changes that would occur should the project be implemented. Irreversible changes typically fall into three categories:

- Primary impacts such as the use of non-renewable resources (i.e., biological habitat, agricultural land, mineral deposits, water bodies, energy resources and cultural resources);
- Secondary impacts, such as highway improvements, that provide access to previously inaccessible areas; and
- Environmental accidents potentially associated with future development under the project.

7.4.1 Primary Impacts Related to Nonrenewable Resources

Section 15126.2(d) of the CEQA Guidelines states that irretrievable commitments of resources should be evaluated to ensure that the current consumption of such resources is justified. Although sensitive biological resources are identified within the AMP area, direct and indirect impacts can be offset through regulatory compliance. As discussed in Section 7.2, the implementation of the proposed AMP would not impact agricultural, forestry, or mineral resources. Implementation of the proposed AMP would not directly impact nearby water bodies, as discussed in Section 5.7, *Hydrology and Water Quality.*

Construction implemented in accordance with the proposed AMP would require the irreversible consumption of natural resources and energy. Natural resource consumption would include lumber and other forest products, sand and gravel, asphalt, steel, copper, other metals, and water. Building materials are considered permanently consumed. Energy derived from nonrenewable sources, such as fossil fuels, would be consumed during construction and as a result of operational lighting, equipment, and transportation uses. The proposed AMP includes measures aimed at improving energy efficiency, reducing water use, and minimizing impacts on other natural resources to reduce irreversible energy and water consumption associated with construction and operation.

The proposed AMP could impact important historical, tribal cultural, or archaeological resources, given the presence of known and potential historical resources within the AMP area. Potential impacts to historical, tribal cultural, or archaeological resources can be mitigated through regulatory compliance and the implementation of the mitigation framework further detailed in Section 5.5, *Historical, Archaeological, and Tribal Cultural Resources*. Impacts to historical, archaeological, and tribal cultural resources would be less than significant with mitigation incorporated.

7.4.2 Secondary Impacts Related to Access to Previously Inaccessible Areas

The AMP area is almost completely built out and is accessible via regional transportation facilities (e.g., SR 125 and I-805). No new freeways or roadways are proposed that would provide access to currently inaccessible areas. Therefore, the implementation of the proposed project would not result in a significant irreversible commitment with regard to unplanned land use.

7.4.3 Impacts Related to Environmental Accidents

With respect to environmental accidents, and as further discussed in Section 5.6 of this PEIR, *Human Health, Public Safety, and Hazardous Materials*, potential impacts related to hazardous materials and associated health hazards from the implementation of the proposed AMP would be avoided or reduced to below a level of significance through mandatory conformance with applicable regulatory/industry standards and the previously identified mitigation measures. The AMP area is located within a VHFHSZ (City 2009). However, future development would be subject to applicable state and City regulations related to fire hazards and prevention. Accidents related to flood hazards would not be significant because all development would be subject to drainage and floodplain regulations in the SDMC and would be required to adhere to the City's Drainage Design Manual and Storm Water Standards Manual.

8.0 ALTERNATIVES

8.1 Introduction

CEQA Guidelines Section 15126.6 requires that an EIR compare the effects of a "reasonable range of alternatives" to the effects of a project. The CEQA Guidelines further specify that the alternatives evaluated should attain most of the basic project objectives and avoid or substantially lessen any 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]). The impacts of the alternatives may be discussed "in less detail than the significant effects of the project as proposed" but most provide sufficient information to allow meaningful evaluation, analysis, and comparison of each alternative. The discussion must also include an evaluation of the No Project Alternative to allow decision-makers to compare the impacts of approving the proposed project against the impacts of not approving it. The CEQA Guidelines also require the identification of the environmentally superior alternative among the alternatives analyzed.

8.2 Summary of Project Objectives and Significant Effects

In accordance with CEQA Guidelines Section 15126.6(a), the project alternatives are assessed relative to their ability to (1) meet the basic objectives of the AMP and (2) avoid or substantially lessen the significant effects of the AMP.

8.2.1 Master Plan Objectives

As described in Section 3.3, *Master Plan Objectives*, the primary goals, recommendations, and objectives of the AMP are as follows:

1. Implement safety improvements necessary to bring the Airport into compliance with FAA regulations and design criteria.

2. Adapt to the transformational changes that have occurred in the aviation industry to ensure alignment with current federal regulations, design standards, fleet mix, aircraft operational characteristics, and Airport land use policies.

3. Accommodate regional demand for hangar, tie-down, and terminal building space utilizing a phased implementation schedule for the proposed improvements.

4. Maintain a balance between the Airport users and the surrounding community while encouraging Airport business growth and opportunities.

5. Preserve natural and historic resources within Airport lands.

8.2.2 Significant Impacts of the Proposed Project

Based on the evaluations in Chapter 5.0, *Environmental Analysis*, implementation of the project was determined to result in potentially significant impacts related to the environmental resources areas discussed below, all of which could be fully mitigated through the implementation of identified mitigation measures.

Development of the improvements as part of the implementation of the project would affect sensitive habitat for BUOW, as discussed in Section 5.2, *Biological Resources*. The habitat modification resulting from the permanent removal of 7.2 acres of non-native grassland and the temporary removal of 5.4 acres of non-native grassland (12.6 acres in total) is considered a significant impact to sensitive wildlife species. In addition to the direct impacts to the BUOWs from the loss of habitat, indirect impacts to the BUOW could occur if nesting owls are affected by construction. Northern harrier also has the potential to nest in the AMP area, and any impacts to nesting raptors would be considered significant. Significant impacts also could occur if nesting birds were directly impacted by project implementation. Implementation of the project would result in direct impacts to 12.6 acres of Tier IIIB habitats (non-native grassland); these impacts would be considered significant and would require mitigation at ratios prescribed by the City's Biology Guidelines.

The currently proposed AMP includes rehabilitation of the existing terminal building. Although the improvements are proposed to be consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties, specifications for the rehabilitation are not currently available. Therefore, to ensure that the improvements do not jeopardize the significance of the Historic District, as discussed in Section 5.5, *Historical*, *Archaeological, and Tribal Cultural Resources*, impacts have been identified as potentially significant. Implementation of the project could adversely impact prehistoric archaeological resources, including religious or sacred use sites and human remains, as well as tribal cultural resources. These impacts would be potentially significant.

Future development under the AMP would be required to adhere to applicable regulatory/industry codes, standards, and requirements related to health hazards from hazardous materials sites, as described in Section 5.6, *Human Health, Public Safety, and Hazardous Materials*. However, although compliance with existing regulations would minimize impacts associated with hazardous materials, impacts remain potentially significant due to the areas of potential environmental concern identified within the project area due to past and present hazardous materials use within the Airport.

Due to the sensitivity to vibration of the historic buildings within the AMP area, particularly the terminal building and the original ATCT, potential structural damage could potentially occur during construction activities in the AMP area, as described in Section 5.9, *Noise*. Therefore, impacts would be potentially significant.

8.3 Alternatives Screening Process

Section 15126.6(c) of the CEQA Guidelines requires that an EIR identify alternatives that were considered and rejected as infeasible, and briefly explain the reasons for their rejection. This section addresses that requirement by providing a summary of the alternatives screening process that has been undertaken for the project.

The initial step in preparing the AMP was identifying aviation demand forecasts at SDM. Demand forecasts, based on the desires and needs of the service area, provide a basis for determining the type, size, and timing of aviation facility development and a platform upon which the AMP is based. Forecasts for SDM's future aviation activity and demand were developed for a planning period extending through 2037 using various data sources provided by, but not limited to, the FAA, Caltrans, the County of San Diego, and the City of San Diego. The demand forecast developed in the AMP and carried forward as the basis for the AMP is Scenario 1A. Scenario 1A represents a realistic and expected demand at SDM, and therefore facility improvements identified in the AMP are based on this demand forecast. An additional scenario, Scenario 1B, was identified in the AMP as a maximum demand forecast. Scenario 1B was developed as part of the MAP Environmental Assessment Aviation Activity Forecast Update and Validation in coordination with the FAA. Because Scenario 1B would represent a maximum demand scenario that is not expected to occur, the AMP did not carry this forecast forward when considering facility improvements. In addition, potential facility improvements based on the higher Scenario 1B forecast would not reduce impacts compared to the currently proposed AMP that is based on the Scenario 1A forecast. As such, the Scenario 1B forecast was rejected from further consideration in this alternatives analysis.

Section 5 of the Final AMP (C&S Engineers 2019) included an assessment of alternatives to satisfy the aforementioned forecasted demand (Scenario 1A) at the Airport. The overall objective of the alternatives assessment in the AMP was to evaluate the best ways to implement the necessary facility requirements to safely and effectively meet FAA safety, capacity, and design standards and accommodate projected aviation demand over the planning period.

To ensure that the FAA safety, capacity, and design standards would be met, airside alternatives were developed separately from landside alternatives. Five alternative scenarios were developed for the landside components of the Airport, and three scenarios were included for the airside components. These initial draft alternative scenarios were presented to the Airport Master Plan Planning Advisory Committee (PAC) and the public for input and comment. The collection and interpretation of input gathered from the PAC and the public ultimately indicated that no single proposed alternative contained all of the preferred airside and landside components desired by the PAC and the public. As such, adjustments were made to each proposed alternative scenario. Next, evaluation criteria were created using guidance found in FAA's AC 150/5070-6B, *Airport Master Plans*, to rate each alternative, with the goal of identifying a recommended airside and landside alternative. Based on the outcome of the evaluation and ranking process, a preferred airside and landside alternative scenario emerged. The preferred airside and landside scenarios were then combined into one recommended preferred development alternative for the Airport.

The preferred alternative described in the AMP was further refined as part of the development process. As noted in Chapter 3.0, *Project Description*, although the size of the existing terminal building (12,600 SF) was determined to be adequate to serve the projected needs of the Airport, due to the age of the building, there are several age, configuration, and other environmental issues for the existing building. Based on City input and the understanding of the current conditions of the terminal building, instead of a terminal building expansion, the preferred alternative in the AMP proposed the replacement of the terminal with a larger (approximately 14,000 SF) terminal building in the same location, and the original ATCT would be relocated. However, the terminal building and original ATCT were evaluated for their historic potential. The integrity of the Auxiliary Naval Air Station Brown Field Historic District and the terminal building (Building 2002) as a contributor to the

District are intact and all resources remain eligible for listing in the SDRHR, the CRHR, and the NRHP. As a result, instead of demolishing the terminal building and moving the ATCT, the currently proposed project includes rehabilitation of the existing building according to the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties. In addition, the proposed runup area included in the preferred alternative was removed from the AMP.

8.4 Proposed Master Plan Alternatives

Based on the alternatives screening process discussed above in Section 8.3, the following two alternatives are evaluated in this analysis:

- No Project Alternative
- Reduced Project Alternative

These alternatives represent a reasonable range of alternatives, as defined in the State CEQA Guidelines, because they provide a feasible alternate infrastructure that would reduce and/or eliminate significant impacts associated with the project. Because the project would not have significant and unavoidable impacts (i.e., all potentially significant impacts would be reduced to a less-than-significant level with mitigation), no additional alternatives are warranted in accordance with State CEQA Guidelines Section 15126.6(b), which states that "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project."

8.5 No Project Alternative

8.5.1 Description

The State CEQA Guidelines require that the analysis of a No Project Alternative be included in all EIRs. The purpose of evaluating the No Project Alternative is to provide a benchmark, enabling decision-makers to compare the magnitude of the environmental effects of the action alternatives. The No Project Alternative represents what would reasonably be expected to occur in the foreseeable future if the proposed AMP were not approved.

Under the No Project Alternative, development would occur as guided by the most recently approved ALP. The current ALP was approved by the FAA in 2005, and some of the ALP components and improvements, such as the shortening of Runway 8L-26R, increasing the length of the parallel runway 8R-26L, installation of new approach landing aids and lighting, and the relocation of the airport entrance have been constructed and are currently operational. However, there are some components of the 2005 ALP that have yet to come to fruition and are considered as part of the No Project Alternative. For example, the closed taxiway adjacent to Taxiway B would be demolished, eliminating FOD concerns. The 2005 ALP designates areas as future aviation but does not contain any specific development proposal. Noteworthy is that much of the area that is currently approved for development as part of the MAP, is designated as non-aviation and general aviation on the 2005 ALP. Given that these areas have been approved for development as part of a separate planning process, these areas are not considered in the No Project Alternative.

Further, because improvements associated with addressing current and future projections for aircraft activity would not occur, the No Project Alternative assumes that a reduced number of future aircraft operations would result compared to the proposed AMP over the planning period, due to the lack of accommodating facilities (such as hangars).

8.5.2 Environmental Analysis

8.5.2.1 Air Quality

The No Project Alternative would not result in the airport improvements identified in the AMP. Criteria pollutant and precursor pollutant emissions generated during construction or operational activities related to the implementation of the proposed AMP would not occur. While emissions could still occur from construction of improvements from the 2005 ALP that have not yet been implemented, which would result in less than significant impacts, emissions associated with the 2005 ALP improvements would be less than emissions associated with the proposed AMP based on the scale of improvements. Therefore, although the proposed AMP would result in less than significant impacts associated with air quality, the No Project Alternative would have a reduced impact related to air quality due to the reduced number of improvements and a reduced regional impact to air quality from a reduced number of aircraft operations over the planning period.

8.5.2.2 Biological Resources

The No Project Alternative would not result in the airport improvements identified in the AMP. The direct impacts associated with the implementation of the AMP, such as the loss of BUOW habitat, including 12.6 acres of non-native grassland, would not occur. However, construction of improvements from the 2005 ALP that have not yet been implemented could result in similar indirect impacts as the proposed AMP, such as runoff, sedimentation, fugitive dust, or other edge effects or other construction-related impacts to nesting birds, resulting in potentially significant impacts and requiring mitigation. Based on the scale of improvements, impacts associated with the 2005 ALP improvements would be less than impacts associated with the proposed AMP. Therefore, although the proposed AMP would result in less than significant impacts to biological resources with mitigation incorporated, the No Project Alternative have a reduced impact related to biological resources.

8.5.2.3 Geology and Soils

The No Project Alternative would not result in the airport improvements identified in the AMP. While construction of improvements from the 2005 ALP that have not yet been implemented could result in similar geology and soils impacts as the proposed AMP, which would be less than significant, potential impacts associated with the 2005 ALP improvements would be less than those associated with the proposed AMP based on the scale of the improvements. Therefore, although the proposed AMP would result in less than significant impacts associated with geology and soils, the No Project Alternative would have a reduced impact related to geology and soils due to the reduced number of improvements.

8.5.2.4 Greenhouse Gas Emissions

The No Project Alternative would not result in the airport improvements identified in the AMP. GHG emissions generated during construction or operational activities related to the implementation of the proposed AMP would not occur. While emissions could still occur from the construction of improvements from the 2005 ALP that have not yet been implemented, which would result in less than significant impacts, emissions associated with the 2005 ALP improvements would be less than emissions associated with the proposed AMP based on the scale of improvements. Therefore, although the proposed AMP would result in less than significant impacts associated with GHG emissions, the No Project Alternative would have a reduced impact related to GHG due to the reduced number of improvements and potentially a reduced regional impact to GHG from a reduced number of aircraft operations over the planning period.

8.5.2.5 Historical, Archaeological, and Tribal Cultural Resources

Under the No Project Alternative, future improvements planned for the terminal building and original ATCT would not occur, thereby eliminating the potential impacts related to historic resources as compared to the proposed AMP. Further, potential impacts associated with prehistoric archaeological resources and tribal cultural resources would not occur, reducing impacts compared to the proposed AMP.

8.5.2.6 Human Health, Public Safety, and Hazardous Materials

The No Project Alternative would not result in the airport improvements identified in the AMP. The No Project Alternative would use hazardous materials and dispose of hazardous wastes that are associated with the construction of improvements and operation of the airport similar to the proposed AMP, albeit to a lesser extent based on the reduced scale of improvements. Construction of improvements from the 2005 ALP that have not yet been implemented could result in similar hazardous materials site impacts as the proposed AMP, resulting in potentially significant impacts and requiring mitigation similar to that identified for the proposed AMP. Based on the scale of improvements, potential impacts associated with the 2005 ALP improvements would be less than those associated with the proposed AMP. Therefore, although the proposed AMP would result in less than significant impacts associated with human health, public safety, and hazardous materials with mitigation incorporated, the No Project Alternative would have a reduced impact related to the reduced number of improvements.

8.5.2.7 Hydrology and Water Quality

The No Project Alternative would not result in the airport improvements identified in the AMP. Construction of improvements from the 2005 ALP that have not yet been implemented could result in similar hydrology and water quality impacts as the proposed AMP, which would be less than significant; however, potential impacts associated with the 2005 ALP improvements would be less than those associated with the proposed AMP based on the scale of improvements. Specifically, under the No Project Alternative, the Airport would generally maintain the existing hydrological patterns in which the impervious surfaces in the southern and center portions of the site would continue to be conveyed to gutters and storm drains, and the northern and western undeveloped portions of the site would continue to percolate into the pervious soils. This differs from the AMP,

which would result in an increase in impervious surfaces within the AMP area, altering the drainage pattern and increasing the rate and amount of surface runoff above existing conditions. Similarly, the extent of ground disturbance and associated potential effects to water quality during the construction of improvements under the 2005 ALP would be reduced compared to the AMP. Therefore, although the proposed AMP would result in less than significant impacts associated with hydrology and water quality, the No Project Alternative would have a reduced impact related to hydrology and water quality due to the reduced number of improvements.

8.5.2.8 Land Use

Under the No Project Alternative, potential impacts associated with consistency with applicable land use plans would be avoided, reducing impacts as compared to the proposed AMP. Other impacts, such as those related to community division and consistency with the ALUCP, would be similar to the proposed AMP (no significant impacts).

8.5.2.9 Noise

The No Project Alternative would not result in the airport improvements identified in the AMP. Noise generated during construction and non-flight-related operational activities related to the implementation of the proposed AMP would not occur. While noise could still occur from the construction of improvements from the 2005 ALP that have not yet been implemented, which would result in less than significant impacts, noise associated with the 2005 ALP improvements would be less than noise associated with the proposed AMP based on the scale of improvements. Therefore, although the proposed AMP would result in less than significant impacts associated with noise, the No Project Alternative would have a reduced impact related to noise due to the reduced number of improvements and potentially a reduced impact to noise that may affect surrounding land uses in the AIA from a reduced number of aircraft operations over the planning period. Further, the No Project Alternative would avoid potential impacts related to construction vibration that may affect historic structures.

8.5.2.10 Public Services

The No Project Alternative would not result in the airport improvements identified in the AMP. Given that under the No Project Alternative the demand for public services would remain unchanged from present conditions and that with the implementation of improvements associated with the AMP would not occur, the No Project Alternative would have no impact in relation to public services, resulting in a reduced impact compared to the proposed AMP.

8.5.2.11 Utilities

The No Project Alternative would not result in the airport improvements identified in the AMP. As such, under the No Project Alternative, the land uses and operations at SDM would remain generally unchanged, and no impact related to utilities would occur. While improvements associated with the proposed AMP would result in a minimal increase in utility usage compared to existing conditions, since the No Project Alternative would not incorporate improvements such as a potentially expanded terminal building and maintenance building, impacts under the No Project Alternative would be reduced compared to the proposed AMP.

8.5.2.12 Visual Effects and Neighborhood Character

The No Project Alternative would not result in the airport improvements identified in the AMP, including those such as the construction of the hangars, construction of the maintenance building, and rehabilitation of the terminal building, which would represent visible permanent above-ground components. While improvements from the 2005 ALP that have not yet been implemented could be constructed and be visible, which would result in less than significant impacts, visual effects associated with the 2005 ALP improvements would be less than those associated with the proposed AMP based on the scale of improvements. Therefore, although the proposed AMP would have less than significant impacts with relation to visual effects and neighborhood character, the No Project Alternative would have a reduced impact compared to the proposed AMP.

8.5.3 Conclusion

Under the No Project Alternative, many environmental impacts would be reduced in comparison to the proposed AMP based on the smaller scale of improvements. However, since some improvements still may occur per the 2005 ALP, there is potential that mitigation similar to what is identified for the proposed AMP would still be required, including in association with indirect impacts to biological resources and hazardous materials sites. In addition, the No Project Alternative would not fulfill four of the objectives of the AMP, including Objective 1. Implementing safety improvements necessary to bring the airport into compliance with FAA regulations and design criteria; Objective 2, Adapting to the transformational changes that have occurred in the aviation industry to ensure alignment with current federal regulations, design standards, fleet mix, aircraft operational characteristics, and airport land use policies; Objective 3, Accommodating regional demand for hangar, tie-down, and terminal space; and Objective 4, Maintaining a balance between the airport users and the surrounding community while encouraging airport business growth and opportunities. However, it would fulfill one objective, that of preserving natural and historic resources within airport lands (Objective 5).

8.6 Reduced Project Alternative

8.6.1 Description

Under the Reduced Project Alternative, the development footprint associated with the landside improvements would be reduced in scale. The number of hangars developed in the west area of the airfield would be reduced, the 23 hangars near the new maintenance building would not be constructed, and the number of proposed vehicle parking spaces would be reduced from 83 to 30 spaces. The wash rack would not be constructed. The rehabilitation of the terminal building would not occur. All other landside improvements would be the same as the proposed AMP, including the construction of the maintenance building and the 13 hangars near the EAA leasehold.

The airside improvements would remain the same as the proposed AMP, including the improvements to Taxiway A (pavement removal), Taxiway B (pavement demolishing), Taxiway C (reconfiguration to 90 degrees), and Taxiway D (pavement demolishing and reconfiguration to dual taxiways).

Further, because the extent of the improvements associated with addressing current and future projections for aircraft activity would not occur, the Reduced Project Alternative assumes that a reduced number of future aircraft operations would result compared to the proposed AMP over the planning period.

8.6.2 Environmental Analysis

8.6.2.1 Air Quality

The Reduced Project Alternative would result in fewer improvements and a smaller amount of construction disturbance compared to the AMP. Criteria pollutant and precursor pollutant emissions generated during construction or operational activities under the Reduced Project Alternative would be less than significant and reduced compared to the proposed AMP. Therefore, although the proposed AMP would result in less than significant impacts associated with air quality, the Reduced Project Alternative would have a reduced impact related to air quality due to the reduced number of improvements and potentially a reduced regional impact to air quality from a reduced number of aircraft operations over the planning period.

8.6.2.2 Biological Resources

The Reduced Project Alternative would result in a smaller amount of disturbance to habitat designated as non-native grassland (by approximately half in the western side of the AMP), by reducing the number of hangar sites, parking spaces, and the wash rack. The direct impacts, such as the loss of BUOW habitat, including 12.6 acres of non-native grassland, would be reduced, and the indirect impacts of runoff, sedimentation, fugitive dust, or other edge effects or other construction-related impacts to nesting birds would be reduced, although impacts associated with sensitive habitat would still occur and mitigation would still be required. The Reduced Project Alternative would result in a lower amount of disturbance and, therefore, a reduced impact on biological resources compared to the proposed AMP.

8.6.2.3 Geology and Soils

The Reduced Project Alternative would result in fewer structures and a smaller amount of disturbance by reducing the number of hangar sites, parking spaces, and the wash rack. While construction of improvements could result in similar geology and soils impacts as the proposed AMP, which would be less than significant, potential impacts associated with the Reduced Project Alternative improvements would be less than those associated with the proposed AMP based on the scale of improvements and amount of disturbance. Therefore, although the proposed AMP would result in less than significant impacts associated with geology and soils, the Reduced Project Alternative would have a reduced impact related to geology and soils due to the reduced number of improvements.

8.6.2.4 Greenhouse Gas Emissions

The Reduced Project Alternative would result in fewer airport improvements and a smaller amount of construction disturbance compared to the AMP. GHG emissions generated during construction or operational activities under the Reduced Project Alternative would be less than significant and

reduced compared to the AMP. Therefore, although the proposed AMP would result in less than significant impacts associated with GHG, the Reduced Project Alternative would have a reduced impact related to GHG due to the reduced number of improvements and potentially a reduced regional impact to GHG from a reduced number of aircraft operations over the planning period.

8.6.2.5 Historical, Archaeological, and Tribal Cultural Resources

Under the Reduced Project Alternative, future improvements planned for the terminal building and original ATCT would not occur, thereby eliminating the potential impacts related to historic resources, as compared to the proposed AMP. Further, potential impacts associated with prehistoric archaeological resources and tribal cultural resources would be reduced compared to the proposed AMP due to a smaller amount of construction disturbance compared to the AMP; however, ground disturbance under the Reduced Project Alternative would still result in potentially significant impacts to archaeological resources, requiring mitigation similar to that identified for the proposed AMP.

8.6.2.6 Human Health, Public Safety, and Hazardous Materials

The Reduced Project Alternative would use hazardous materials and dispose of hazardous wastes that are associated with the construction of improvements and operation of the airport similar to the proposed AMP, albeit to a lesser extent based on the reduced scale of improvements. Construction of improvements under the Reduced Project Alternative could result in similar hazardous materials site impacts as the proposed AMP, resulting in potentially significant impacts and requiring mitigation similar to that identified for the proposed AMP. Based on the scale of improvements, potential impacts associated with the Reduced Project Alternative would be less than those associated with the proposed AMP. Therefore, although the proposed AMP would result in less than significant impacts associated with human health, public safety, and hazardous materials with mitigation incorporated, the Reduced Project Alternative would have a reduced impact related to due to the reduced number of improvements.

8.6.2.7 Hydrology and Water Quality

The Reduced Project Alternative would lessen the area of impervious surfaces within the western portion of the AMP area near where the hangars are proposed under the AMP. However, the drainage pattern and rate and amount of surface runoff would still be altered compared to existing conditions, as with the proposed AMP. Development would be subject to compliance with a Construction General Permit, and as discussed in Section 5.7 of this PEIR, *Hydrology and Water Quality*, would require a SWPPP. The Reduced Project Alternative would still result in a temporary increase in the amount of pollutants being generated at the site that may potentially enter into downstream waters, and the required regulatory compliance would reduce the impact to less than significant. Overall, the Reduced Project Alternative would reduce impacts to hydrology and water quality compared to the proposed AMP due to fewer future improvements that would be implemented and land disturbance that would occur.

8.6.2.8 Land Use

Under the Reduced Project Alternative, potential impacts associated with consistency with applicable land use plans would be reduced compared to the proposed AMP. Other impacts, such as

those related to community division and consistency with the ALUCP, would be similar to the proposed AMP (significant impacts).

8.6.2.9 Noise

The Reduced Project Alternative would result in fewer landside airport improvements than the AMP. Noise generated during construction or non-flight-related operational activities related to the implementation of the proposed AMP would be correspondingly reduced. Therefore, although the proposed AMP would result in less than significant impacts associated with noise, the Reduced Project Alternative would have a reduced impact related to noise due to the reduced amount of improvements. There may also potentially be a reduced impact to aircraft noise that may affect surrounding land uses in the AIA from a reduced number of aircraft operations over the planning period.

The Reduced Project Alternative would avoid potential impacts related to construction vibration that may affect historic structures because improvements associated with the terminal building would not occur. Overall, impacts would be reduced compared to the proposed AMP.

8.6.2.10 Public Services

Under the Reduced Project Alternative, the amount of landside facilities would be reduced; however, a reduction in the number of hangar sites, parking spaces, and the wash rack is not likely to substantially affect the demand for public services. The improvements and retrofits associated with the terminal building would not occur. However, since those improvements were intended to implement repairs rather than increase the number of Airport employees, the level of public services needed would not be changed. Impacts under the Reduced Project Alternative would remain less than significant.

8.6.2.11 Utilities

Under the Reduced Project Alternative, the amount of landside facilities would be reduced; however, a reduction in the number of hangar sites, parking spaces, and the wash rack is not likely to substantially affect the demand for utilities. The improvements and retrofits associated with the terminal building would not occur. However, since those improvements were intended to implement repairs rather than increase the number of Airport employees, the level of utility service needed would not be changed. Impacts under the Reduced Project Alternative would remain less than significant.

8.6.2.12 Visual Effects and Neighborhood Character

The Reduced Project Alternative would result in a lower number of new hangars on the west side of the Airport, and rehabilitation of the terminal building would not occur. Therefore, although the proposed AMP would have less than significant impacts in relation to visual effects and neighborhood character, the Reduced Project Alternative would have a reduced impact.

8.6.3 Conclusion

Under the Reduced Project Alternative, many environmental impacts would be reduced in comparison to the proposed AMP based on the smaller scale of improvements, although impacts to biological resources, archaeological and tribal cultural resources, and human health and safety would still require mitigation. Mitigation associated with historic resources and construction vibration would no longer be required under the Reduced Project Alternative.

The Reduced Project Alternative would implement the airside improvements associated with the AMP, and would fulfill two associated objectives, including Objective 1: Implementing safety improvements necessary to bring the airport into compliance with FAA regulations and design criteria, and Objective 2: Adapting to the transformational changes that have occurred in the aviation industry to ensure alignment with current federal regulations, design standards, fleet mix, aircraft operational characteristics, and airport land use policies. The Reduced Project Alternative would also fulfill Objective 5: Preserving natural and historic resources within Airport lands, similar to the project.

By reducing the number of hangars, parking spaces, and not implementing the improvements to the terminal building, the Reduced Project Alternative would partially fulfill two objectives of the AMP, including: Objective 3: Accommodating regional demand for hangar, tie-down, and terminal space, and Objective 4: Maintaining a balance between the airport users and the surrounding community while encouraging airport business growth and opportunities.

8.7 Environmentally Superior Alternative

The CEQA Guidelines require the identification of an Environmentally Superior Alternative among the alternatives analyzed in an EIR. The guidelines also require that if the No Project Alternative is identified as the Environmentally Superior Alternative, another Environmentally Superior Alternative must be identified.

Based on a comparison of the overall environmental impacts for the described alternatives, the No Project Alternative is identified as the Environmentally Superior Alternative. This alternative would not result in potentially significant impacts associated with biological resources; historic, archaeological, and tribal cultural resources; hazards and hazardous materials; and construction vibration. The No Project Alternative would not meet the objectives of the AMP, except for Objective 5. Safety improvements associated with bringing the Airport into compliance with current FAA regulations would not occur, which may result in decreased operational safety associated with future aircraft operations.

Of the remaining alternatives, the Environmentally Superior Alternative is the Reduced Project Alternative, as it would reduce impacts that would require mitigation, including biological resources, archaeological and tribal cultural resources, and hazards and hazardous materials. However, mitigation for these issues would still be required. The Reduced Project Alternative would eliminate the need for mitigation associated with historic resources and construction vibration. Other impacts that were considered less than significant for the AMP would be further lessened under the Reduced Project Alternative.

Because the Reduced Project Alternative would implement the airside improvements associated with the AMP, it would fulfill the two objectives associated with improving the safety of aircraft operations. It would also fulfill the objective related to preserving natural and historic resources. However, it would only partially fulfill two objectives of the AMP, including the two related to landside facilities, by accommodating projected growth for the Airport.

Table 8-1
COMPARISON OF AMP AND ALTERNATIVE IMPACTS

Environmental Topic	Proposed AMP	No Project Alternative	Reduced Project Alternative
Air Quality	LTS	LTS-	LTS-
Biological Resources	SM	SM-	SM-
Geology	LTS	LTS-	LTS-
Greenhouse Gas Emissions	LTS	LTS-	LTS-
Historical, Archaeological and Tribal Cultural Resources	SM	N	SM-
Human Health, Public Safety and Hazardous Materials	SM	SM-	LTS-
Hydrology and Water Quality	LTS	LTS-	LTS-
Land Use	LTS	N	LTS-
Noise	SM	LTS-	LTS
Public Services and Facilities	LTS	N	LTS
Public Utilities	LTS	N	LTS
Visual Effects and Neighborhood Character	LTS	LTS-	LTS-

SM = significant but mitigable impacts; SU = significant and unmitigated impacts; N = no significant impacts; LTS = less than significant impacts
- = reduced impact level(s) relative to the Project
+= increased impact level(s) relative to the Project

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10.3.7 Aviation Air Quality and Noise Technical Report – HMMH

Heather Bruce, Senior Consultant
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